AT   Österreich / Austria (National level)

Austria's health system has a complex governance structure. Responsibilities for health system governance in Austria are divided between the federal and the regional level (from State of Health in the EU Austria Country Health Profile 2021 https://health.ec.europa.eu/system/files/2021-12/2021_chp_at_english.pdf)

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	108
Total population (2019)	8858775
Proportion older 65y % (2019)	18,84%
Mountain, remote, island?	Mostly mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Life Sciences/Bio-Economy and Sustainability/Quality of life. Securing the quality of life in view of demographic change
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/AT

PM-related Best Practices
Interregional Collaborations

BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
BeNeLuxA Initiative – Collaboration on Pharmaceutical Policy Horizon scanning for pharmaceuticals	https://beneluxa.org/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
ERA-NET TRANSCAN-2 Aligning national/regional translational cancer research programmes and activities	https://www.era-learn.eu/network-information/networks/transcan-2
ERA-NET TRANSCAN-3	https://www.era-learn.eu/network-information/networks/transcan-3
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/
HEcoPerMed	https://hecopermed.eu/
Screen4Care - Accelerating Diagnosis for Rare Disease Patients Through Genetic Newborn Screening and Artificial Intelligence	https://www.screen4care.eu/
STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/

TO-REACH Transferring Innovations in Health Systems	https://to-reach.eu/
ULTRAPLACAD - ULTRAsensitive PLAsmonic devices for early CAncer Diagnosis	https://ultraplacad.eu/
UNCAN - a European Initiative to UNderstand CANcer – Drafting a Blueprint for European Cancer Research	https://uncan.eu/

Project

Biobanks, Cohorts and genomic initiatives

Biobanking and BioMolecular resources Research Infrastructure Austria	http://bbmri.at/home
CBmed	https://www.cbmed.at/about-cbmed/
Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-

Digital Innovation Hubs

Policy

Future strategy for life sciences and the pharmaceutical sector in Austria	https://www.bmbwf.gv.at/dam/jcr:ad40cb1e-120e-4a62-b3db-8c4ec1d61139/Life_Science_Strategie_barrierefrei.pdf
Life Science Report Austria 2018	https://www.lifescienceaustria.at/fileadmin/user_upload/LifeScienceReport_Austria_2018_web.pdf

FundingProgramme

Christian Doppler Labors	http://www.cdg.ac.at/
COMET	https://www.ffg.at/
ERA CoSysMed	https://www.eracosysmed.eu/
HDHL-INTIMIC	http://www.healthydietforhealthylife.eu/index.php/era-net/hdhl-intimic/era-hdhl-news/249-hdhl-intimic-the-2-nd-era-net-cofund-within-jpi-hdhl-is-on-its-way
HSRM (University Infrastructures)	https://www.bmbwf.gv.at
Ludwig Boltzmann Gesellschaft	http://www.lbg.ac.at/
National Coordination Platform on Personalized Medicine	http://www.personalized-medicine.at/index_en.html

PM-related Stakeholders

Austrian Centre of Industrial Biotechnology	ACIB	Research	https://www.acib.at/	
Austrian Institute of Technology	AIT	Research	https://www.ait.ac.at	partner HEcoPerMed
Austrian Medicines and Medical Devices Agency	AGES MEA	Policy - Research & Innovation	http://www.basg.gv.at/	
Austrian Public Health Institute	GÖG		https://goeg.at/	national funding research health
Austrian Research Promotion Agency	FFG	Funding	https://www.ffg.at/en	
Austrian Science Fund	FWF	Funding	https://www.fwf.ac.at/en/	
Austrian Society for Biomedical Engineering	ÖGBMT	Cluster	www.oegbmt.at	
Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology	BMK	Policy - Research & Innovation	https://www.bmk.gv.at/en.html	
Federal Ministry for Digital and Economic Affairs	BMDW	Policy - Research & Innovation	https://www.bmdw.gv.at/en.html	
Federal Ministry for Social Affairs, Health, Care and Consumer Protection	BMSGPK	Policy	https://www.sozialministerium.at/	national policy health
Healthy Austria Fund	FGÖ	Funding	https://fgoe.org/	national funding health / the Austrian funding and competence center for health promotion and prevention
Life Science Austria	LISA	Cluster	https://www.lifescienceaustria.at/	
Ludwig Boltzmann Gesellschaft	LBG	Research	https://www.lbg.ac.at/	non-university research organization with a thematic focus on medicine and the life sciences
Promotional bank of the Austrian federal government	AWS	Funding	https://www.aws.at/en/	
SBA Research		Research	https://www.sba-research.org/	COMET – Competence Centers for Excellent Technologies research center for information security in Austria

Memberships/Representations In EU/international projects or initiatives in the area of PM

ICPerMed

AT11   Burgenland (AT)

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	78
Total population (2019)	293433
Proportion older 65y % (2019)	21,88%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Sustainable quality of life & life sciences. Health and wellness, medical technology, food and beverages, hospitality services
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/AT11

PM-related Best Practices

Interregional Collaborations

digital Life4CE	https://www.interreg-central.eu/Content.Node/digitalLIFE4CE.html

Project

Biobanks, Cohorts and genomic initiatives

16/05/2023

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Region Burgenland Bundesland		Policy	https://www.burgenland.at/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

16/05/2023

AT12   Niederösterreich / Lower Austria

Lower Austria in one of the nine regions within Austria. In 2021, Lower Austria launches platforms for green transition & bio-economy, for health technology. The Lower Austrian Economic Strategy 2025 foresees a bundle of instruments in four core strategies:
• Intelligent, innovative, high-quality products, materials & production
• Developments related to climate, the environment, and resources
• Digitalization, Big Data, and new business models
• High-quality, internationally prominent locations and regional centres

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	89
Total population (2019)	1677542
Proportion older 65y % (2019)	20,11%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Medical Biotechnology. Blood purification systems, tissue engineering, cell therapies, cell biology/physiology. Medical Materials and Technologies.
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/AT12

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

DIHOST - Digital Innovation Hub OST	https://dih-ost.at/

Policy

FundingProgramme

PM-related Stakeholders

Region Lower Austria / Bundesland Niederösterreich		Policy	https://www.noe.gv.at/noe/index.html	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regional and Local Health Authorities (EUREGHA)

AT13   Wien / Vienna

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	4809
Total population (2019)	1897491
Proportion older 65y % (2019)	16,47%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Life sciences.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/AT13

PM-related Best Practices

Interregional Collaborations

BeWell – Blueprint Alliance for a Future Health Workforce Strategy on Digital and Green Skills	https://ehma.org/bewell-blueprint-alliance-for-a-future-health-workforce-strategy-on-digital-and-green-skills/
ImmunoSep - Personalized immunotherapy in sepsis: a precision medicine based approach	https://www.immunosep.eu/
KATY - AI-Empowered Personalised Medicine System to Improve Cancer Treatments	https://katy-project.eu/

Project

Biobanks, Cohorts and genomic initiatives

Ceprotin Treatment Registry	https://www.orpha.net/consor/cgi-
MedUni Wien Biobank	https://www.meduniwien.ac.at/hp/biobank/home/
VetBiobank	https://www.vetmeduni.ac.at/de/vetcore/research-units/research-

SAPHIRe Regional Report

Digital Innovation Hubs

VRVis Zentrum für Virtual Reality und Visualisierung Forschungs-GmbH	http://www.vrvis.at

Policy

FundingProgramme

PM-related Stakeholders

Lifesciences Vienna	LISAvienna	Cluster	https://www.lisavienna.at/	
Medical University Vienna	MedUni Vienna	Research	https://www.meduniwien.ac.at/web/en/	
Region Vienna / Bundesland Wien		Policy	https://www.wien.gv.at/	
Research Center for Molecular Medicine of the Austrian Academia of Sciences	CEMM	Research	https://cemm.at/	
Research Institute - Digital Human Rights Center		Research	https://researchinstitute.at/	
University of Natural Resources and Life Sciences		Research	http://www.boku.ac.at	
University of Vienna	UniVie	Research	https://id.univie.ac.at/	
Vienna BioCenter		Infrastructure	https://www.viennabiocenter.org/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); European Regions Research and Innovation Network (ERRIN)

AT21   Kärnten / Carinthia

Kärnten (Carinthia) is the southernmost Austrian state with a population of 557,773. The regions' S3 priorities include a focus on control technology and module switching technology, information and communication technologies, sustainability technologies and materials and production technologies at the interfaces of IT. The region is involved in a number of initiatives including Pflegenahversorgung, HealtNet and Consenso. Austria's health system has a complex governance structure. Responsibilities for health system governance in Austria are divided between the federal and the regional level (from State of Health in the EU Austria Country Health Profile 2021 https://health.ec.europa.eu/system/files/2021-12/2021_chp_at_english.pdf)

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	60
Total population (2019)	560939
Proportion older 65y % (2019)	21,71%
Mountain, remote, island?	> 50 % of population live & > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Prosperity and quality of life for future generations industry 4.0
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/AT21

PM-related Best Practices
Interregional Collaborations

CoNSENSo - COmmunity Nurse Supporting Elderly iN a changing Society	https://www.alpine-space.org/projects/consenso/en/home
HEALTHNET - Building integrated health care through the use of ICT solutions in home care	https://keep.eu/projects/18244/Building-integrated-health--EN/
IndividualizedPaediatricCure: Cloud-based virtual-patient models for precision paediatric oncology	https://cordis.europa.eu/project/id/826121

Project

Pflegenahversorgung		https://www.ktn.gv.at/Service/News?nid=29521

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Office of the Carinthian Provincial Government / Amt der Kärntner Landesregierung		Policy	https://www.ktn.gv.at/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

AT22   Steiermark / Styria

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	77
Total population (2019)	1243052
Proportion older 65y % (2019)	20,26%
Mountain, remote, island?	> 50 % of population live and > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	health / next generation genomics / quality of life / Health-Tech / health technology / bio-sciences / biobank / biomarker technology / biomechanics / biomedical sensor technology / pharmaceutical production technology
url RIS3 2021-2027	https://s3platform-legacy.jrc.ec.europa.eu/documents/20182/230939/AT_Styria_RIS3_Final.pdf/3467797f-de20-4450-998e-fbeaf68170f5
RIS3 priorities 2014-20	Health Technology. Innovation focus on the areas of Health and Food following demographic trends. Health Technology: strengthening the region's position and capacities within the area of health-Technology, focusing on engineering and bioscience advancements.
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/AT22

PM-related Best Practices

Interregional Collaborations

Codex4SMEs (Companion diagnostics expedited for small and medium-sized businesses)	https://www.nweurope.eu/projects/project-search/codex4smes-companion-diagnostics-expedited-for-smes/
EUCAN-Connect	https://eucanconnect.com/
EurOPDX	https://www.europdx.eu/
OncoTrack - Methods for systematic next generation oncology biomarker development	http://www.oncotrack.eu/
PROPHET - a PeRsOnalized Prevention roadmap for the future HEalThcare	https://cordis.europa.eu/project/id/101057721
SPIDIA for Personalized Medicine - Standardisation of generic Pre-analytical procedures for In-vitro DIAgnostics for Personalized Medicine	https://cordis.europa.eu/project/id/733112
TIMELY - Artificial intelligence-powered apps for a healthy heart	https://cordis.europa.eu/project/id/101017424

SAPHIRe Regional Report

not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Project

Biobanks, Cohorts and genomic initiatives

Biobank Graz	https://biobank.medunigraz.at/en/
CBmed	https://www.cbmed.at/about-cbmed/
Styrian registry of congenital anomalies - contributes to the EUROCAT network	https://www.orpha.net/consor/cgi-

Digital Innovation Hubs

BioNanoNet ForschungsGmbH, BNN	http://www.bionanonet.at
CAMPUS 02 R&D Section	https://en.campus02.at/rd/
Know-Center GmbH	http://www.know-center.tugraz.at/

Policy

FundingProgramme

PM-related Stakeholders

BioNanoNet Association	BNN	Cluster	https://www.bnn.at/	
BioTechMed-Graz		Research	https://biotechmedgraz.at/en/	cooperation and networking of the University of Graz, Graz University of Technology and the Medical University of Graz at the interface of organic medical basics, tech nology developments and Med izinischer application with the aim of a joint research for health .

Graz University of Technology	TU Graz	Research	https://www.tugraz.at/en/research/forschungsschwerpunkte-5-fields-of-expertise/human-biotechnology/overview-human-biotechnology/	
Joanneum Research COREMED - Cooperative Center for Regenerative Medicine & HEALTH - Institute for Biomedicine and Health Sciences		Research	https://www.joanneum.at/	
Med Uni Graz		Research	https://www.medunigraz.at/	
Region Styria / Bundesland Steiermark		Policy	https://www.verwaltung.steiermark.at/	
Research Center Pharmaceutical Engineering	RCPE	Research	http://www.rcpe.at/en/en_home/	
Styrian human technology cluster Human.technology	HTS	Cluster	https://www.humantechnology.at/	
Universität Graz University		Research	https://www.uni-graz.at/de/die-universitaet/die-universitaet-graz/forschungsprofil/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

16/05/2023   not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information
to be represented please contact us saphire@vlaanderen.be

AT31   Oberösterreich / Upper Austria

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	127
Total population (2019)	1482095
Proportion older 65y % (2019)	18,43%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Health and ageing society (IT systems, e-Health, software, virtual surgery, imaging software, medical devices and materials, telemetric, human motion analysis, smart home, ambient assisted living, personalised diagnostics, prevention, therapy)

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/AT31

PM-related Best Practices

Interregional Collaborations

DIGI-B-CUBE	https://digibcube.eu/
S3 ClusSport	https://s3platform-legacy.jrc.ec.europa.eu/sport

Project

Biobanks, Cohorts and genomic initiatives

SAPHIRe Regional Report

16/05/2023

Digital Innovation Hubs

Linz Center of Mechatronics GmbH	https://www.lcm.at/en/virtual-development/
PROFACTOR Cognitive Robotics and Factory HUB	https://www.profactor.at/open-labs/cognitive-robotics-and-factory-hub/
RECENDT - Research Center for Non-Destructive Testing GmbH	https://www.recendt.at

Policy

FundingProgramme

PM-related Stakeholders

MedTech-Cluster of Business Upper Austria	MTC	Cluster	https://www.medizintechnik-cluster.at/en/	
Region Upper Austria / Bundesland Oberösterreich		Policy	https://www.land-oberoesterreich.gv.at/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

AT32   Salzburg

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	79
Total population (2019)	555221
Proportion older 65y % (2019)	18,71%
Mountain, remote, island?	> 50 % of population live and > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 Lifescience (pharmaceuticals, biotech and medical technology) /Cancer research; Immunology and allergies ; Regenerative medicine and regenerative biology; Cognitive neurosciences; Metabolism ; As a wide-ranging topic across all business areas: personalised medicine

url RIS3 2021-2027   https://s3platform-legacy.jrc.ec.europa.eu/documents/20182/89115/WISS-2025-final-EN.pdf/b3768ed9-61dc-41f5-b419-aa8950828617

RIS3 priorities 2014-20   Smart Materials in Life Sciences. Innovative activities emerging from linkages between the biosciences and medicine, e.g. in the realm of medical technology or also ?bioanalytical engineering? (materials? surfaces and sensor technology for diagnostics, biochip technologies, micro-fluid engineering and biosensor technology). Pharmaceutical sector, biotechnology and Medical technology, Cancer research, Immunology and allergies, Regenerative medicine and regenerative biology, Cognitive neurosciences, Metabolism. As a wide-ranging topic across all business areas: personalised medicine. Innovative activities emerging from linkages between the biosciences and medicine, e.g. in the realm of medical technology or also ‚bioanalytical engineering' (materials' surfaces and sensor technology for diagnostics, biochip technologies, micro-fluid engineering and biosensor technology). Also by introducing the ICTs, the sectors providing growth prospects for new technologies are equally diverse, e.g. that of integrating electronics and sensors into materials for purposes of measurement and analysis (among other uses), or of simulating properties of materials. Biomaterials

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/AT32

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Ludwig Boltzman Institute for Digital Health and Prevention University Institute for Sports Medicine at the University Hospital Salzburg		Research	https://dhp.lbg.ac.at/?lang=en	
Region Salzburg Bundesland		Policy	http://www.salzburg.gv.at/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

16/05/2023   not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

AT33   Tirol

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	60
Total population (2019)	754705
Proportion older 65y % (2019)	17,98%
Mountain, remote, island?	> 50 % of population live and > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Life Sciences. Development of life sciences across Technology fields

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/AT33

PM-related Best Practices

Interregional Collaborations

imSAVAR	https://imsavar.eu/

Project

Biobanks, Cohorts and genomic initiatives

Biobank of the Medical University of Innsbruck and the Tirol Clinics	https://www.i-med.ac.at/biobank/index.html

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Cluster Life Sciences		Cluster	https://www.standort-tirol.at/page.cfm?vpath=cluster/fachbereiche/life-sciences - schwerpunkte	
Medical University of Innsbruck	MUI	Research	https://www.i-med.ac.at/mypoint/	
Region Tyrol / Tirol Bundesland		Policy	https://www.tirol.gv.at/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

16/05/2023

AT34   Vorarlberg

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	156
Total population (2019)	394297
Proportion older 65y % (2019)	17,31%
Mountain, remote, island?	> 50 % of population live and > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Education and health. Humans and Technology.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/AT34

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Region Vorarlberg Bundesland		Policy	https://vorarlberg.at/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

16/05/2023 not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

BE   Belgique / België / Belgium (National level)

Belgium is a federal state where competences are divided amongst the different competence levels. Research and Innovation is a competence at the regional level (Brussels Capital Region, Flanders and Wallonia) - with some exceptions, whereas the health responsibilities are divided between the federal level and Communities (Flemish, French speaking and German speaking).
Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_be_english.pdf
For PM-related competences see https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_436f8941e9eb4f7098decd531e1adffe.pdf

Innovation Performance group (2021)	Innovation leader
Population Density (per km² (2019)	377
Total population (2019)	11455519
Proportion older 65y % (2019)	18,90%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20

url RIS3 2014-2020

PM-related Best Practices

Interregional Collaborations

BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
BeNeLuxA Initiative – Collaboration on Pharmaceutical Policy Horizon scanning for pharmaceuticals	https://beneluxa.org/
CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/
EU-STANDS4PM	https://www.eu-stands4pm.eu/
imSAVAR	https://imsavar.eu/
MIRRI - Microbial Resource Research Infrastructure	https://www.mirri.org/
MyPeBS - My Personal Breast Screening	https://www.mypebs.eu/

PERMIT - PERsonalised Medicine Trials	https://permit-eu.org/
STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/
UNCAN - a European Initiative to UNderstand CANcer – Drafting a Blueprint for European Cancer Research	https://uncan.eu/

Project

#dataforbetterhealth		https://dataforbetterhealth.be/the-initiative/
BeSolveRD - The Belgian Genome Resource to Resolve Rare Diseases		https://beshg.be/workgroups/besolverd
mHealthBelgium - Belgian platform for mobile applications that are CE-marked as a medical device		https://mhealthbelgium.be/
Personalized Medicine: introduction of Next-Generation-Sequencing in Routine diagnostics in (hemato) oncology in Belgium	canc-NGS	https://www.sciensano.be/en/projects/personalized-medicine-introduction-next-generation-sequencing-routine-diagnostics-hemato-oncology

Biobanks, Cohorts and genomic initiatives

Belgian Biobanking and Biomolecular Resources Research Infrastructure (BBMRI)	https://www.bbmri.be/
Belgian Cancer Registry	https://kankerregister.org/default.aspx?lang=EN
Belgian Diabetes Registry (BDR)	http://www.bdronline.be/
Belgian Genome Biobank	https://www.elixir-belgium.org/projects/belgian-genome-biobank
Belgian Virtual Tumourbank	https://virtualtumourbank.kankerregister.org/tumourbank.aspx?lang=TB_EN
Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-

Digital Innovation Hubs

Policy

Act on the collection and use of human body tissue for the purpose of medical application to humans or to humans or for scientific research	http://www.ejustice.just.fgov.be/mopdf/2018/12/28_1.pdf - Page29
Action plan eHealth	https://www.ehealth.fgov.be/file/view/AWjHQ9zDgwvToiwBkf13?filename=Actieplan%202019-2021%20e-Gezondheid_final.pdf
Recommendations The state of "omics" technologies and their clinical application	https://www.health.belgium.be/sites/default/files/uploads/fields/fpshealth_theme_file/20210203_shc-9477_omics_vweb.pdf
Séquençage du génome complet : défis et pistes d'organisation pour le système belge – Synthèse	https://www.college-genetics.be/pdf/actu/KCE%20rapport%20300B-WGS%20FR.pdf

FundingProgramme

16/05/2023   not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

PM-related Stakeholders

Belgian College for Genetics / Belgische College voor Menselijke Erfelijkheid en Zeldzame Ziekten / Collège Belge de Génétique Humaine et Maladies Rares			https://www.college-genetics.be/nl/	
Belgian Healthcare Knowledge Centre / Federaal Kenniscentrum voor de Gezondheidszorg / Centre fédéral d'Expertise des Soins de santé	KCE		https://kce.fgov.be/en	
Belgian Society for Human Genetics	BeSHG		https://beshg.be/	
beMedtech Belgian federation medical technologies		Cluster	https://www.bemedtech.be/nl/	
Cancer centre			https://www.e-cancer.be/fr/le-centre-du-cancer	ensure the implementation, consistency and monitoring of the cancer policy in Belgium
Cancer Foundation		Funding	https://www.cancer.be/	
e-Health Valley | Digital Health Startup Incubator		Cluster	https://www.e-healthvalley.com/	
ELIXIR Belgium		Infrastructure	https://www.elixir-belgium.org/	
Essencia - Belgian federation of chemical industry and life sciences sector		Cluster	https://www.essenscia.be/	
Federal Agency for Medicines and Health Products	FAMHP		https://www.famhp.be/en/famhp	national health
FPS Public Health			https://www.health.belgium.be/en/health	national health
FPS Scientific Research Belgian Science Policy Office Belspo	belspo		https://www.belspo.be/belspo/index_en.stm	national science
Health & Biotech Valley			https://biovox.eu/belgium-the-health-biotech-valley-of-today-and-tomorrow/	
National Institute for Health and Disability Insurance / Rijksinstituut voor ziekte- en invaliditeitsverzekering / Institut national d'assurance maladie-invalidité	RIZIV / INAMI		https://www.riziv.fgov.be/nl/Paginas/default.aspx	national health

16/05/2023

Sciensano		Research	https://www.sciensano.be/	research institution Animal health / Effectiveness and safety of vaccines, medicines and health products - Quality of medical laboratories / Food consumption and food safety / Health and disease monitoring / Health and environment / Quality of healthcare
SCK CEN Belgian Centre for Nuclear Research	SCK CEN	Research	https://www.sckcen.be/en	

Memberships/Representations In EU/international projects or initiatives in the area of PM

BE1 Région de Bruxelles-Capitale / Brussels Hoofdstedelijk Gewest / Brussels Region

Brussels is the central region in Belgium. Belgium has one of highest density of Advanced Therapy Companies in the world. The region has a population of 1.2 million. In terms of health, the region's strengths lie in its large hospital-hospital hub and the high concentration of people with varied socio-cultural profiles. This provides a breeding ground for clinical trials and collaborations between different scientific disciplines (engineering sciences, life sciences, etc.).

Medical research in the region is recognized in oncology, chronic and neurodegenerative diseases, medical devices and medical engineering. The objective of the strategic field of activity "Personalized Medicine and Wellness" is therefore to capitalize on these assets in order to improve the performance of care and the quality of life of patients. There is a focus on the development of personalized therapies and services, improving the hospital-to-home care chain (e-health) and prevention, by improving the environmental quality of life.

Innovation Performance group (2021)	Innovation leader
Population Density (per km² (2019)	7527
Total population (2019)	1215290
Proportion older 65y % (2019)	13,06%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	Personalised & Integrated health & care / digital twins / e-Health / biomarkers; advanced & predictive clinical, diagnostic and therapeutic applications and solutions / tailor-made bio/nanopharmaceutical products or treatments, e.g. cell-based therapies and regenerative medicine based on blood components, hormones, antibodies or enzymes / robotic or precision medical device treatments and surgeries
url RIS3 2021-2027	https://innoviris.brussels/sites/default/files/documents/innoviris_gewestelijk_innovatieplan_gip_digital_nl.pdf
RIS3 priorities 2014-20	Health: Personalised medicine and well-being. Personalized medicine and care, improving the hospital's care chain (e-health), prevention (improving environmental and nutritional quality)
url RIS3 2014-2020	https://innoviris.brussels/sites/default/files/documents/plan_regional_pour_linnovation_2016_2020.pdf

PM-related Best Practices
Interregional Collaborations

CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
ERA-NET TRANSCAN-2 Aligning national/regional translational cancer research programmes and activities	https://www.era-learn.eu/network-information/networks/transcan-2
ERA-NET TRANSCAN-3	https://www.era-learn.eu/network-information/networks/transcan-3

EuroNanoMed III (2016-2021) the new ERA-Net Cofund Action on Nanomedicine	https://euronanomed.net/
ExACT- European network staff eXchange for integrAting precision health in the health Care sysTems	http://www.exactproject.net/site/
MedIT - Information Technologies in Medicine	http://www.meditcluster.com/
MyPeBS - My Personal Breast Screening	https://www.mypebs.eu/
SYNCHROS - SYNergies for Cohorts in Health: integrating the ROle of all Stakeholders	https://synchros.eu/
Vaccinopolis	https://www.uantwerpen.be/en/research-groups/centre-for-evaluation-vaccination/vaccine-information/news/

Project

Bridge Strategic Platforms		https://ehealth.brussels/en/projets/bridge/
Brusafe+		https://ehealth.brussels/en/projets/1914/
Brussels Health Netork		https://ehealth.brussels/en/projets/brussels-gezondheids-netwerk/
Genome4Brussels		https://www.f101g.org/nl/genome4brussels-ia-genomique-maladies-rares/

Biobanks, Cohorts and genomic initiatives

Banque de cellules à visée thérapeutique, accréditée depuis 2009, dans le programme d'inspection (the Joint Accreditation Commitee of the ISCT and EBMT ou JACIE)	https://www.bordet.be/fr/therapie-cellulaire-hematologie
Banque de cellules souches hématopoïétiques	https://www.bordet.be/fr/therapie-cellulaire-hematologie
Banque de sang de cordon ombilical de l'ULB, accréditée par l'agence américaine FACT (Foundation for Accreditation of Cellular Therapy)	https://www.bordet.be/fr/therapie-cellulaire-hematologie
Belgian sickle cell anemia registry	https://www.orpha.net/consor/cgi-
Biobank Brussels Health Campus	https://www.vub.be/2020/biobank
Biothèque Wallonie Bruxelles	http://www.biotheque-wallonie-bruxelles.be/en
Central Registry of Rare Diseases (CRRD)	https://www.orpha.net/consor/cgi-
Diabetes Biobank Brussels	http://www.diabetesbiobank.org/
EUNEFRON: registry of the European network for the study of orphan nephropathies	https://www.orpha.net/consor/cgi-bin/ResearchTrials_RegistriesMaterials.php?lng=EN&data_id=67934&Registry
Willy Gepts Collection - the disease process in type 1 diabetes discovered	https://gepts.vub.ac.be/index.php

Digital Innovation Hubs

Accelerating Photonics innovation for SME's (ACTPHAST 4.0)	http://www.actphast.eu
AGORIA	http://www.agoria.be
BruBotics: Brussels Human Robotics Research Center (VUB)	https://www.brubotics.eu/
Brussels Creative	http://www.brusselscreative.be/
Sirris Hub / Data and software Innovation	http://www.sirris.be

Policy

FundingProgramme

Bridge program on personalised medicine	https://innovadm.irisnet.be/fr/documents/bridge-modalites-de-lappel-bridge-sante-et-bien-etre-2017
Join R&D Call Predictive Medicine	http://www.irsib.irisnet.be/fr/documents/joint-rd-project-call-formulaire-2019

PM-related Stakeholders

Brussels Regional Public Service / Service Public Régional de Bruxelles / Gewestelijke Overheidsdienst Brussel	SPRB / GOB	Policy	https://be.brussels/about-the-region/brussels-regional-public-service?set_language=en	
Centre de Génétique Humaine (CGH) des Cliniques universitaires Saint-Luc		Hospital	https://www.saintluc.be/	
Centre de Génétique humaine des Cliniques universitaires Saint-Luc		Research	https://www.saintluc.be/fr/genetique-humaine-presentation	
Centre de Génétique Humaine - ULB		Research	http://ulbgenetics.be/	
Centre Hospitalier Universitaire Brugmann		Research	https://www.chu-brugmann.be/	
Centrum voor Medische Genetica - University Hospital / Universitair Ziekenhuis Brussel -		Hospital	https://www.uzbrussel.be/	
Elixir Belgium		Infrastructure	https://www.elixir-belgium.org/	
Fondation 101 Génomes Genomics for Rare Diseases			https://www.f101g.org/en/	Philanthropic Fundraising Services - Genomics, Rare Diseases, Marfan syndrome, Bioinformatic, and AI
Genetics Department of the Erasmus Hospital, attached to the Human Genetics Center of the ULB		Hospital	https://www.erasme.ulb.ac.be/fr/services-de-soins/laboratoires/genetique	
impulse.brussels		Funding	http://www.impulse.be/en	
E-Health Venture	Digital Health start-up Incubator		Funding	https://www.ehealthventure.com/	
Institut Bordet		Research	https://www.bordet.be/en/jules-bordet-institute	
Institution for scientific research and innovation of Brussels / Institut bruxellois pour la Recherche et l'Innovation / Instituut ter Bevordering van het Wetenschappelijk Onderzoek en de Innovatie van Brussel	Innoviris	Funding	https://be.brussels/about-the-region/regional-bodies/institut-bruxellois-pour-la-recherche-et-l-innovation-innoviris?set_language=en	
lifetech.brussels		Cluster	http://lifetechbrussels.com/	

ULB Cancer Research Center	U-CRC	Research	https://fondationulb.be/fr/cancer/	
Université Libre Bruxelles	ULB	Research	https://www.ulb.be/en/research	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); European Regions Research and Innovation Network (ERRIN)

ULB Cancer Research Center	U-CRC	Research	https://fondationulb.be/fr/cancer/	
Université Libre Bruxelles	ULB	Research	https://www.ulb.be/en/research	

BE2   Vlaams Gewest / Flanders Region

Flanders is a region of Northern Belgium. Belgium has one of highest density of Advanced Therapy Companies in the world. Flanders has showcased as a region with great potential in the pharmaceutical market. The region is characterised by exceptionally rapid approval times for clinical trials and puts heavy emphasis on biotech R&D, through a well-developed ecosystem of startups, SMEs and larger international companies. Different strategic research centra (VIB, imec, VITO) focus on aspects related to personalised medicine and work on the valorisation of their research.

Personalised medicine is furthermore one of the priorities in Flanders' smart specialisation strategy. In this light, Flanders is one of the leading regions in the smart specialisation partnership on personalised medicine (S3P4PM) and coordinator of the SAPHIRe project.

Innovation Performance group (2021)	Innovation leader -
Population Density (per km² (2019)	493
Total population (2019)	6596233
Proportion older 65y % (2019)	20,20%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Personalized cure and care. Personalized medical and social care

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/BE2

PM-related Best Practices

Interregional Collaborations

ATHENA - Augmenting Therapeutic Effectiveness through Novel Analytics	https://portal-uat.athenafederation.org/
B1MG - Beyond 1 Million Genomes Pan-European initiative to create genome-based health data infrastructure	https://b1mg-project.eu/
CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
Codex4SMEs (Companion diagnostics expedited for small and medium-sized businesses)	https://www.nweurope.eu/projects/project-search/codex4smes-companion-diagnostics-expedited-for-smes/
DIALOG - Dialog for Innovation And LOcal Growth	http://www.interregeurope.eu/dialog/
ERA-NET NEURON Cofund2 togther for brain research	https://www.neuron-eranet.eu/

ERA-NET TRANSCAN-2 Aligning national/regional translational cancer research programmes and activities	https://www.era-learn.eu/network-information/networks/transcan-2
ERA-NET TRANSCAN-3	https://www.era-learn.eu/network-information/networks/transcan-3
EurOPDX	https://www.europdx.eu/
ExACT- European network staff eXchange for integrAting precision health in the health Care sysTems	http://www.exactproject.net/site/
Healthy Aging	https://www.interregemr.eu/projects/healthyaging-en
Helium (Health Innovation Experimental Landscape through Policy Improvement)	https://www.interregeurope.eu/helium/
i2-CoRT (Innovation and Implementation acceleration for Complex Rehabilitation Technology)	https://www.i2-cort.eu/
IndividualizedPaediatricCure: Cloud-based virtual-patient models for precision paediatric oncology	https://cordis.europa.eu/project/id/826121
MatMed	https://www.matmed.eu/
MEDIC-NEST project - Precision MEDIcine Clusters integrating Digital Technologies for New EcoSystems in HealThcare	https://echalliance.com/medic-nest-kick-off-cosme-project-on-precision-medicine-clusters-integrating-digital-technologies-for-new-ecosystems-in-healthcare/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
MIRRI - Microbial Resource Research Infrastructure	https://www.mirri.org/
PROPHET - a PeRsOnalized Prevention roadmap for the future HEalThcare	https://cordis.europa.eu/project/id/101057721
RegMedXB Regenerative Medicine Crossing Borders	https://regmedxb.com/
S3 ClusSport	https://s3platform-legacy.jrc.ec.europa.eu/sport
S3P4PM - Smart Specialisation Platform for Personalised Medicine	https://s3platform.jrc.ec.europa.eu/personalised-medicine
SAPHIRe - Securing the Adoption of Personalised Health in Regions	https://www.saphire-eu.eu/
Support for the health workforce planning and forecasting expert network	http://healthworkforce.eu/
TT4CL - Targeted Treatment for Cutaneous Leishmaniasis	https://tt4cl-h2020.eu/
Vaccinopolis	https://www.uantwerpen.be/en/research-groups/centre-for-evaluation-vaccination/vaccine-information/news/
Vanguard Initiative Smart Health Pilot Project	https://www.s3vanguardinitiative.eu/pilots/smart-health
Vanguard Initiative Smart Health Pilot Project Demo Case Diabetes type-II on return / P4 Medicine - Citizen Lab	https://www.topfit.life/mission_programmes/diabetes-on-return-nl/
Vanguard Initiative Smart Health Pilot Project Demo Case We are - Interregional Personal Data Management Platform	https://vito.be/en/news/flanders-invests-platform-secure-data-sharing
wearIT4health	http://www.wearit4health.com/

Project

A European high-performance genome analytics platform for cost-effective DNA analysis.	GAP	https://www.imec-int.com/en/what-we-offer/research-portfolio/gap
Comon challenge : how make healthcare understandable for everyone?		https://comon.gent/nieuws/uitdaging-gekozen-hoe-maken-we-zorg-verstaanbaar-voor-alle-gentenaars
FlandersCare		https://www.flanderscare.be/
Healthouse		https://www.health-house.be/en/
High Performance Computing for the Life Sciences	The Exascience Lab	http://www.exascience.com/
Modernising health services with a new robotic training centre in Belgium		https://ec.europa.eu/regional_policy/en/projects/belgium/modernising-health-services-with-a-new-robotic-training-centre-in-belgium
ORBIT of Organoid-Based tIssue manufacturing plaTform		
VIB Grand Challenges Programma	GCP	https://vib.be/grand-challenges-program

Biobanks, Cohorts and genomic initiatives

Antwerpen registry of congenital anomalies - contributes to the EUROCAT network	https://www.orpha.net/consor/cgi-
Biobank Brussels Health Campus	https://www.vub.be/2020/biobank
Diabetes Biobank Brussels	http://www.diabetesbiobank.org/
Flemish Biobank	https://vlaamsebiobank.cmi-vzw.be/

Digital Innovation Hubs

Flam3D	https://www.flam3d.org
Flanders Make	https://www.flandersmake.be
IMEC	https://www.imec-int.com/en/home
Sirris Hub / Data and software Innovation	https://www.sirris.be/

Policy

nota VR impulsprogramma Innovatie in gezondheid en zorg	https://www.ewi-vlaanderen.be/sites/default/files/bestanden/60cb72e8d129f6000c000c25.pdf
Vlaamse Beleidsplan Gepersonaliseerde Geneeskunde	https://www.vlaio.be/nl/nieuws/vlaanderen-investeert-gepersonaliseerde-geneeskunde
Vlaanderen in transitie	https://www.vario.be/sites/default/files/documents/Vlaanderen_in_transitie_def_web.pdf

FundingProgramme

Personalised Medicine ICON (Interdisciplinary Cooperative Research)	https://www.vlaio.be/nl/subsidies-financiering/personalised-medicine-icons

PM-related Stakeholders

Bio Imaging Core (VI)		Research	http://bio-imaging-core.be/	Molecular bio-imaging, microscopy
Cancer Research Institute Ghent	CRIG	Research	http://www.crig.ugent.be/	academic/research
Cell and tissue Imaging Cluster	CIC	Research	https://gbiomed.kuleuven.be/english/corefacilities/microscopy/cic/cic.htm	Molecular bio-imaging, microscopy
Dynamic Bioimaging lab		Research	https://www.uhasselt.be/UH/DBI/Research/Instrumentation.html	Molecular bio-imaging, microscopy
Expert Group Antwerp Molecular Imaging	EGAMI	Research	https://www.uantwerpen.be/en/research-groups/egami/	Medical bio-imaging
Flanders.bio		Cluster	https://www.flanders.bio/en/home/	industry
Leuven Cancer Institute/ Leuven Kanker Instituut	LKI	Research	https://uzleuven-kuleuven.be/lki/en	academic/research
Limburg Clinical Research Center	LCRC	Research	https://www.lcrc.be/index.html	academic/research
Medical Image and Signal Processing	MEDISIP	Research	http://medisip.elis.ugent.be/	Medical bio-imaging
Medical Imaging research Center	MIRC	Research	https://mirc.uzleuven.be/MedicalImagingCenter/about.php	Medical bio-imaging
Molecubes		Research	http://www.molecubes.com/products/	Medical bio-imaging
UAntwerp bio-imaging lab		Research	https://www.uantwerpen.be/en/research-groups/egami/equipment/bio-imaging-lab/	Medical bio-imaging
Anicells		Infrastructure	https://anicells.com/	advancing innovative cell therapy solutions to the patient
Bio-Accelerator		Infrastructure	http://www.bio-accelerator.com/en/home	
Bio-Incubator Leuven		Infrastructure	https://www.bio-incubator.be/en/	
Biomedical informatics research network Antwerp	Biomina	Cluster	http://www.biomina.be/	academic/research
Biomedical Research Institute / Biomedisch Onderzoeksinstituut	BIOMED	Research	https://www.uhasselt.be/BIOMED-en	academic/research
Bioqubeventures		Funding	http://www.bioqubeventures.com	infrastructure
BioVille		Funding	http://www.bioville.be/en	infrastructure
Caps-It research infrastructure		Infrastructure	https://rega.kuleuven.be/cmt/capsit	research
Centre for Human Genetics / Centrum Menselijke Erfelijkheid	CME	Research	https://www.uzleuven.be/en/centre-human-genetics	academic/research
Centre for Medical Genetics / Centrum voor Medische Genetica	CMG	Research	http://www.brusselsgenetics.be/default.aspx?lang=EN	academic/research
Centre for Medical Genetics Antwerp / Centrum voor Medische Genetica Antwerpen		Research	http://www.genetica-antwerpen.be/	academic/research
Centre for Medical Genetics Ghent / Centrum voor Medische Genetica Gent	CMGG	Research	https://www.cmgg.be/en/	academic/research

Centre for Oncological Research / Centrum voor Oncologisch Onderzoek	CORE	Research	https://www.uantwerpen.be/en/research-groups/core/	academic/research
Centre of Excellence in Sustainable Pharmaceutical Engineering & Manufacturing	CESPE	Infrastructure	https://cespe.be/	
CESPE			https://cespe.be/	E test centre for innovative (bio) pharmaceutical manufacturing in Ghent, operational in 2024
Cryo-EM Facility		Infrastructure	https://vib.be/labs/cryo-em-facility	
Department of Pharmaceutical and Pharmacological Sciences		Research	https://gbiomed.kuleuven.be/english/research/50000715/index.html	academic/research
Department of Welfare, Public Health and Family / Departement Welzijn, Volksgezondheid en Gezin	WVG	Policy - Healthcare	https://www.departementwvg.be/	regional policy health
Department Economy, Science and Innovation / Departement Economie, Wetenschap & Innovatie	DEWI	Policy - Research & Innovation	https://ewi-vlaanderen.be/en	funding; policy
Departement Neurowetenschappen / Department of Neurosciences		Research	https://gbiomed.kuleuven.be/english/research/50000666/index.html	academic/research
DSP Valley		Cluster	http://www.dspvalley.com/	industry
Education Department / Departement Onderwijs & Vorming	OV	Policy	https://www.onderwijs.vlaanderen.be/	regional policy education
Elixir Belgium		Infrastructure	http://www.bio-accelerator.com/en/home	
Flanders BioImaging	FBI	Infrastructure	https://www.flandersbioimaging.org/	
Flanders Innovation & Entrepreneurship / Agentschap Innoveren & Ondernemen	VLAIO	Funding	https://www.vlaio.be/nl/andere-doelgroepen/flanders-innovation-entrepreneurship	funding
Flemish Institute Biotechnology /Vlaams Instituut voor Biotechnologielaams Instituut voor Biotechnologie	VIB	Research	http://www.vib.be/en/Pages/default.aspx	academic/research
Flemish Institute Technological Research / Vlaams Instituut voor Technologisch Onderzoek	VITO	Research	https://vito.be/en	academic/research
Flemish Supercomputer Center (Vlaams Supercomputer Centrum - VSC)	VSC	Infrastructure	https://www.vscentrum.be/	HPC (high-performance research computing)
Genomics Core Leuven		Research	https://www.genomicscore.be/	
IMEC		Research	https://www.imec-int.com/en/home	academic/research
KU Leuven		Research	https://www.kuleuven.be/english/research/	academic/research
KU Leuven Flow and Mass Cytometry Facility	FACS	Infrastructure	https://gbiomed.kuleuven.be/english/corefacilities/facs	
Laboratory for Therapeutic and Diagnostic Antibodies / Labo Therapeutische en Diagnostische Antilichamen		Research	https://gbiomed.kuleuven.be/english/research/50000715/52453312	academic/research

Laboratory for Precision Cancer Medicine	LPCM	Research	https://www.lpcm.be/	academic/research
Leuven Big Data Platform		Research	http://homes.esat.kuleuven.be/~sistawww/leuvenbigdata/	academic/research
Leuven Centre for Artificial Intelligence	LEUVEN.AI	Research	https://wms.cs.kuleuven.be/ai	academic/research
Leuven Institute for Human Genomics and Society	LIGAS	Research	https://www.kuleuven.be/interfacultair/LIGAS/	academic/research
MEDVIA (ex flanders.healthTech)		Cluster	https://medvia.be/	Flemish spearhead cluster
Mobile Health Unit	MHU	Research	http://mobilehealthunit.org/	academic/research
Multimodal Fluorescence Microscopy and Nanoscopy Platform		Infrastructure	https://www.hofkenslab.com/	
Nanobodies4Instruct		Infrastructure	https://instruct-eric.eu/centre/nanobodies4instruct/	
NERF		Research	https://www.nerf.be/research/research-themes	Medical bio-imaging
NextGenQBio		Infrastructure	https://vib.be/news/nextgenqbio-better-view-cells	
NMR@Leuven Chem&Tech, a Nuclear Magnetic Resonance Spectroscopy Platform for Convergent Research		Infrastructure	https://set.kuleuven.be/nmr	
Oncology Center Jessa Ziekenhuis		Hospital	https://www.esmo.org/Patients/Designated-Centres-of-Integrated-Oncology-and-Palliative-Care/Oncology-Center-Jessa-Ziekenhuis-Belgium	academic/research
Ontoforce		Corporate - IT	https://www.ontoforce.com/	visual analytics, semantic search and linked data technologies
Orsi Academy		Training/Education	https://www.orsi-online.com/en/about-orsi	
PACBIO Long Molecule Sequencing		Infrastructure	https://www.genomicscore.be/services/pacbio-long-molecule-sequencing/	
Participatiemaatschappij Vlaanderen	PMV	Funding	https://www.pmv.eu/en	funding
Proton ResearCh beam LinE for interuniversity multidisciplinary translational research		Infrastructure	https://www.uzleuven.be/en/proton-centre	
Platform for interdisciplinary isotopic research by means of multi-collector inductively coupled plasma – mass spectrometry		Infrastructure	https://www.ams.ugent.be/atomic-and-mass-spectrometry-research-group	
Q-MIP Quantitative Molecular Imaging Platform	Q-MIP	Infrastructure	https://mima.research.vub.be/en/home	
Rega Institute for Medical Research			https://rega.kuleuven.be/	
Research Foundation Flanders / Fonds voor Wetenschappelijk Onderzoek - Vlaanderen	FWO	Funding	https://www.fwo.be/	regional execution & funding science
Smart Hub Health Vlaams Brabant		Cluster	https://www.smarthubvlaamsbrabant.be/health/	

Studying PHYsiology with NeXt generation Molecular imaging system	Sphynx	Infrastructure	https://www.ugent.be/ea/ibitech/en/research/medisip/?page_id=370	
Universiteit Antwerpen / University of Antwerp	Uantwerpen	Research	https://www.uantwerpen.be/en/research/	academic/research
Universiteit Gent / Ghent University	Ugent	Research	https://www.ugent.be/en/research	academic/research
Universiteit Hasselt / Hasselt University	Uhasselt	Research	https://www.uhasselt.be/research	academic/research
University Hospital / Universitair Ziekenhuis Antwerpen		Hospital	https://www.uza.be/	
University Hospital / Universitair Ziekenhuis Gent		Hospital	https://www.uzgent.be/	
University Hospital / Universitair Ziekenhuis Leuven		Hospital	https://www.uzleuven.be/	
V-Bio Ventures		Funding	https://v-bio.ventures/	infrastructure
Vrije Universiteit Brussel / Free University Brussel	VUB	Research	https://www.vub.ac.be/en/research - home	academic/research
Wetenschapspark UAntwerpen in Niel		Infrastructure	https://www.wetenschapsparkuantwerpen.be/	
XCT-Centre The KU Leuven X-ray Computed Tomography Centre		Infrastructure	https://nieuws.kuleuven.be/en/content/2020/four-ku-leuven-core-facilities-receive-official-recognition	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); European Regions Research and Innovation Network (ERRIN); European Regional and Local Health Authorities (EUREGHA); ICPerMed

BE3   Wallonie / Walloon Region

The Walloon Region is a region of Southern Belgium. Belgium has one of highest density of Advanced Therapy Companies in the world. The regions' S3 priorities in Health and Well being include: Health biotechnology and medical technologies Biomarkers, Diagnostics in vitro and in vivo, innovative tools and equipment, medication administration systems, innovative therapies (cell therapy, protontherapy), IT applied to human health, medical equipment, drug discovery, innovative processes and organizational innovations. Priorities in Digital technologies and Industry 4.0 include: Smart mobility, e-health, green technologies, Internet of things, serious games, big data, open data, transmedia, 3D stereoscopic imaging, serious games, digital media, Internet and mobile content, scanning and digital archiving, motion recognition. Wallonia has adopted a renewed Smart Specialisation Strategy (2021-2027) - An innovative, competitive, collaborative Wallonia with Innovations for enhanced health as one of the five strategic innovation areas.

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	217
Total population (2019)	3643996
Proportion older 65y % (2019)	18,51%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	innovation for enhanced health; preventive, diagnostic and curative medicine; Biotech; home health; e-Health (electronic health) and m-Health (mobile-health) #Biotherapy #Biopharmacy #Medical Technologies #Radiotherapy #Health system #Preventive health #Curative health #Health electronic #Mobile health #Silver economy
url RIS3 2021-2027	https://economie.wallonie.be/sites/default/files/Strat%C3%A9gie%20de%20Sp%C3%A9cialisation%20intelligente%20de%20la%20Wallonie%202021-2027%20%28S3%29%20-%20Mars%202021_.pdf
RIS3 priorities 2014-20	Health biotechnology and medical technologies Biomarkers, Diagnostics in vitro and in vivo, innovative tools and equipment, medication administration systems, innovative therapies (cell therapy, protontherapy), IT applied to human health, medical equipment, drug discovery, innovative processes and organizational innovations. Digital technologies and Industry 4.0. (e-health)
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/BE3

PM-related Best Practices

Interregional Collaborations

ATHENA - Augmenting Therapeutic Effectiveness through Novel Analytics	https://portal-uat.athenafederation.org/
Boost4Health	https://www.boost4health.eu/
CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/

CE4BIG – Cluster Excellence for Business Innovation and Growth in the Health Sector	http://ce4big.lifescience.pl/
DIGI-B-CUBE	https://digibcube.eu/
ERA CoBioTech	https://www.cobiotech.eu/home
ERA-NET NEURON Cofund2 togther for brain research	https://www.neuron-eranet.eu/
ERA-NET TRANSCAN-2 Aligning national/regional translational cancer research programmes and activities	https://www.era-learn.eu/network-information/networks/transcan-2
ERA-NET TRANSCAN-3	https://www.era-learn.eu/network-information/networks/transcan-3
EuroNanoMed III (2016-2021) the new ERA-Net Cofund Action on Nanomedicine	https://euronanomed.net/
EurOPDX	https://www.europdx.eu/
Healthy Aging	https://www.interregemr.eu/projects/healthyaging-en
i2-CoRT (Innovation and Implementation acceleration for Complex Rehabilitation Technology)	https://www.i2-cort.eu/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
MIRRI - Microbial Resource Research Infrastructure	https://www.mirri.org/
MyPeBS - My Personal Breast Screening	https://www.mypebs.eu/
PNANO4BONE - Nanovectors engineered for plasma enhanced theranostics in regenerative medicine	https://www.era-learn.eu/network-information/networks/m-era-net-2/m-era-net-call-2016/nanovectors-engineered-for-plasma-enhanced-theranostics-in-regenerative-medicine
S³martMed - The European Strategic Cluster Partnership for smart specialisation investments in medical technologies.	https://s3martmed.eu/
Vanguard Initiative Smart Health Pilot Project	https://www.s3vanguardinitiative.eu/pilots/smart-health
wearIT4health	http://www.wearit4health.com/

Project

ATMPWal		https://s3.wallonie.be/home/domaines-dinnovation-strategiques/dis2-innovations-pour-une-sante-renforcee/les-iis-du-dis-2/atmp-wal.html
BENEFIT (Biowin)		https://www.biowin.org/fr/projet/benefit
e-santé Wallonie		https://e-santewallonie.be/
I-Care		
Médecine des réseaux et des systèmes	MedReSyst	https://s3.wallonie.be/home/domaines-dinnovation-strategiques/dis2-innovations-pour-une-sante-renforcee/les-iis-du-dis-2/medresyst.html
WALGEMED (Médecine Génomique en Wallonie)		https://www.chuliege.be/jcms/c2_25009915/en/genetique/soins-intensifs-pediatriques-un-diagnostic-genetique-en-40-heures-chrono

SAPHIRe Regional Report

not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Biobanks, Cohorts and genomic initiatives

Biothèque Wallonie Bruxelles	http://www.biotheque-wallonie-bruxelles.be/en
Hainaut and Namur registry of congenital anomalies - contributes to the EUROCAT network	https://www.orpha.net/consor/cgi-bin/ResearchTrials_RegistriesMaterials.php?lng=EN&data_id=63356&Registry

Digital Innovation Hubs

Haute Ecole Louvain en Hainaut, HELHa	https://www.cerisic.be/
LeanSquare	http://www.leansquare.be/
Made Different | Digital Wallonia	https://www.digitalwallonia.be/fr/publications/made-different-digital-wallonia
Réseau LIEU – LIaisons Entreprises-Universités	http://www.reseaulieu.be/en
Sirris Hub / Data and software Innovation	https://www.sirris.be/
SynHERA	http://www.synhera.be

Policy

Déclaration de politique régionale	https://www.wallonie.be/sites/default/files/2019-09/declaration_politique_regionale_2019-2024.pdf
Le futur de la médecine en 4P	http://www.innovatech.be/le-futur-de-la-medecine-personnalisee-preventive-participative-predictive/
Roadmap 2017-2021 GIGA Research Institute (Liège university)	https://www.giga.uliege.be/books/strategicplan/files/assets/common/downloads/publication.pdf

FundingProgramme

MoveUp III - Digital Transformation of Health & Care	https://www.digital-attraxion.com/past-moveup
Wallonie Santé	https://www.wallonie.be/fr/acteurs-et-institutions/wallonie/autres-acteurs-publics-de-la-region-wallonne/wallonie-sante

PM-related Stakeholders

ATC Pharma		Research	https://www.atc-pharma.be/	Clinical Research Center specialized in carrying out "Early Phase" clinical trials
BIOWin The Health Cluster of Wallonia		Cluster	https://www.biowin.org/en	
Brussels South Charleroi BioPark		Infrastructure	https://biopark.be/en	
Centre de Génétique Humaine - CHU Sart-Tilman		Research	https://www.chuliege.be/jcms/c2_16986339/nl/genetique/accueil	
Centre Hospitalier Universitaire de Liège - Service de Génétique Humaine	CHU Liège	Hospital	https://www.chuliege.be/	
Digital Agency / Agence du Numérique	ADN		https://www.adn.be/	
Elixir Belgium		Infrastructure	https://www.elixir-belgium.org/	

European biotechnology school and a health hub			http://www.investinwallonia.be/news-1/news-2/green-light-for-the-eu-biotech-school-health-hub-in-gosselies	
Genomics platform GIGA institute at Liège université	GIGA-Genomics	Research	https://www.gigagenomics.uliege.be/cms/c_4164592/en/gigagenomics	infrastructure, services
GIGA University of Liège's interdisciplinary research institute in the biomedical sciences		Research	https://www.giga.uliege.be/cms/c_4334872/en/giga-le-giga	
Institut de Cancérologie Arsène Burny		Research	https://www.chuliege.be/jcms/c2_16987523/fr/institut-de-cancerologie-arsene-burny/accueil	
Institut de Pathologie et de Génétique - Institute of Pathology and Genetics	IPG		http://www.ipg.be/	diagnostics Anatomopathology , Genetics , Molecular & Cellular Biology and Molecular Microbiology
Institute for radioelements	IRE	Research	https://www.ire.eu/	
MedTech Wallonia		Cluster	https://www.medtech-wallonia.be/	
NAmur Research Institute for LIfe Sciences - Unamur	NARILIS	Research	https://www.narilis.be/	
N-SIDE			https://www.n-side.com/	advanced analytics AI company
OncoDNA			https://www.oncodna.com/en/main/home/	cancer theranostic company
SOWALFIN		Innovation Agency	https://www.sowalfin.be/	
Service Public de Wallonie Economie, Emploi, Recherche	SPW	Policy - Research & Innovation	https://recherche-technologie.wallonie.be/	
Université Catholique de Louvain	UCLouvain	Research	https://uclouvain.be/en/research	
Université de Liège	ULG	Research	https://www.recherche.uliege.be/cms/c_9307308/en/research-domains	
Wallonia e-health Living Lab	WeLL	Cluster	http://well-livinglab.be/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); European Regions Research and Innovation Network (ERRIN); Other : COSME, Vanguard Initiative

16/05/2023

BG   България / Bulgaria (National level)

Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_bulgaria_english.pdf

Innovation Performance group (2021)	Emerging innovator
Population Density (per km² (2019)	63
Total population (2019)	7000039
Proportion older 65y % (2019)	21,33%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 Smart Health

url RIS3 2021-2027   https://opik.bg/public/uploads/2021/03/nov-programen-period-2021-2027-g-20.pdf

RIS3 priorities 2014-20   Healthy life and biotechnology industries. new approaches to diagnostics and medical instruments and equipment; advanced solutions, nano and biotechnologies to be applied in medicine, health care services, other than in blue economy; green/ bio based economy

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/BG

PM-related Best Practices
Interregional Collaborations

BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
EATRIS - European infrastructure for translational medicinE	https://eatris.eu/
EuroNanoMed III (2016-2021) the new ERA-Net Cofund Action on Nanomedicine	https://euronanomed.net/
HoCare - Delivery of Innovative solutions for Home Care by strengthening quadruple-helix cooperation in regional innovation chains	https://www.interregeurope.eu/hocare/
Screen4Care - Accelerating Diagnosis for Rare Disease Patients Through Genetic Newborn Screening and Artificial Intelligence	https://www.screen4care.eu/

Project

SAPHIRe Regional Report

Biobanks, Cohorts and genomic initiatives

Biobanking and BioMolecular resources Research Infrastructure Bulgaria	https://www.bbmri-eric.eu/national-nodes/bulgaria/
Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-

Digital Innovation Hubs

Digital Health and Innovations Cluster Bulgaria	http://dhicluster.bg/?lang=en

Policy

National Health Strategy 2020	https://www.mh.government.bg/media/filer_public/2016/09/12/nzs_2020.pdf
NATIONAL PROGRAM FOR RARE DISEASES 2009 - 2013 НАЦИОНАЛНА ПРОГРАМА ЗА РЕДКИ БОЛЕСТИ 2009 – 2013 (генетични, вродени малформации и ненаследствени заболявания)	https://www.mh.government.bg/media/filer_public/2015/04/17/programa-redki-bolesti-2009-2013.pdf
ПЛАН ЗА ДЕЙСТВИЕ за изпълнение ACTION PLAN for implementation	https://www.mh.government.bg/media/filer_public/2016/09/12/plan_za_deistvie-nzs_2020.pdf

FundingProgramme

PM-related Stakeholders

AI Cluster Bulgaria		Cluster	https://aicluster.bg/	
Bulgarian National Science Fund		Funding	https://www.fni.bg/?q=node/1353	
Bulgarian Alliance for Precision and Personalized Medicine	BAPPM	Cluster	http://bappm.bg/en/about-us/	
Digital Health and Innovations Cluster Bulgaria		Cluster	http://dhicluster.bg/?lang=en	
Health & Life Sciences Cluster Bulgaria	Biocluster	Cluster	https://www.biocluster.bg/	
Medical University - Sofia		Research	https://mu-sofia.bg/en/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR)

BG34   **Югоизточен (Yugoiztochen) / Southeast Region**

coal-intensive region

Innovation Performance group (2021)	Emerging innovator -
Population Density (per km² (2019)	52
Total population (2019)	1032079
Proportion older 65y % (2019)	20,94%
Mountain, remote, island?	Mix of Non-mountain and > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Industry for a healthy life and biotechnology

url RIS3 2014-2020

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

16/05/2023   not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Digital Innovation Hubs

Southeast Digital Innovation Hub	https://digihub.bg/

Policy

FundingProgramme

PM-related Stakeholders

Memberships/Representations In EU/international projects or initiatives in the area of PM

BG41   Югозападен (Yugozapaden) / Southwest Region

Yugozapaden Planning Region (Southwest Planning Region) is a planning region in Bulgaria. It is the biggest and best performing region in Bulgaria in terms of GDP and innovation. The region also has the highest intensity of R&D expenditures in the country. The region hosts almost half of the universities in the country, as well as the two biggest public R&D performers – the Bulgarian Academy of Sciences and the Agricultural Academy.

Innovation Performance group (2021)	Emerging innovator +
Population Density (per km² (2019)	104
Total population (2019)	2102205
Proportion older 65y % (2019)	19,39%
Mountain, remote, island?	> 50 % of population live and > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   na

url RIS3 2014-2020

PM-related Best Practices

Interregional Collaborations

INNAXE - Inclusive & aligned INNovation Agendas across Europe	https://cordis.europa.eu/project/id/101070847

Project

Center of Competence Personalized Innovative Medicine - perimed		https://nimu.mu-plovdiv.bg/nimu_root/en/projects/project-center-of-competence-personalized-innovative-medicine-perimed/

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

Integrated Territorial Strategy for Development of the South-Western Region for level 2 planning for the period 2021-2027	https://www.moew.government.bg/bg/integrirana-teritorialna-strategiya-za-razvitie-na-yugozapaden-region-za-planirane-ot-nivo-2-za-perioda-2021-2027-g

FundingProgramme

PM-related Stakeholders

University of National and World Economy	UNWE	Research	https://www.unwe.bg/en/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Alliance for Personalised Medicine (EAPM)

CH   Schweiz/Suisse/Svizzera/Switzerland (National level)

Innovation Performance group (2021)	Innovation leader
Population Density (per km² (2019)	215
Total population (2019)	8544527
Proportion older 65y % (2019)	18,46%
Mountain, remote, island?	Mostly mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20

url RIS3 2014-2020

PM-related Best Practices

Interregional Collaborations

BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
DIALOG - Dialog for Innovation And LOcal Growth	http://www.interregeurope.eu/dialog/
ECRIN - European Clinical Research Infrastructure Network	https://ecrin.org/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
ERA CoBioTech	https://www.cobiotech.eu/home
ERA-NET NEURON Cofund2 togther for brain research	https://www.neuron-eranet.eu/
ExACT- European network staff eXchange for integrAting precision health in the health Care sysTems	http://www.exactproject.net/site/
ImmunoSep - Personalized immunotherapy in sepsis: a precision medicine based approach	https://www.immunosep.eu/
imSAVAR	https://imsavar.eu/
IndividualizedPaediatricCure: Cloud-based virtual-patient models for precision paediatric oncology	https://cordis.europa.eu/project/id/826121
JAseHN - Joint Action to support the eHealth Network (2015 -2018)	https://webgate.ec.europa.eu/chafea_pdb/health/projects/677102/summary
PERSONALIS - Personalized medical platform	https://www.interreg-oberrhein.eu/projet/personalis-personalisierte-medizinplattform-fur-patienten-mit-autoimmunkrankheiten/?pk_vid=3daa86e008336322160700615e983d3c
Restore	https://www.restore-horizon.eu/

Screen4Care - Accelerating Diagnosis for Rare Disease Patients Through Genetic Newborn Screening and Artificial Intelligence	https://www.screen4care.eu/
SPIDIA for Personalized Medicine - Standardisation of generic Pre-analytical procedures for In-vitro DIAgnostics for Personalized Medicine	https://cordis.europa.eu/project/id/733112
SYNCHROS - SYNergies for Cohorts in Health: integrating the ROle of all Stakeholders	https://synchros.eu/
TO-REACH Transferring Innovations in Health Systems	https://to-reach.eu/

Project

Health 2030		https://health2030.ch/
Plateforme « Santé personnalisée & Société»	SantéPerSo	
Swiss Kidney Project on Genes in Hypertension	SKIPOGH	https://www.maelstrom-research.org/study/skipogh
Swiss Personalized Health Network (SPHN)	SPHN	https://sphn.ch/

Biobanks, Cohorts and genomic initiatives

EUROCAT VAUD Switzerland - Registry of congenital malformations of canton Vaud	https://www.orpha.net/consor/cgi-bin/OC_Exp.php?lng=en&Expert=60053
Observer Country European '1+ Million Genomes' Initiative	https://digital-strategy.ec.europa.eu/en/policies/1-million-genomes
SACHER: Swiss Adult Congenital HEart disease Registry	https://www.sacher-registry.com/wp-
Swiss registries for Interstitial and Orphan Lung Diseases (SIOLD Registries)	https://www.orpha.net/data/eth/CH/ID26501CH.pdf
Swiss Research registries and databases	https://www.ispm.unibe.ch/research/research_registries_and_databases/inde

Digital Innovation Hubs

Digital Health Hub at Biopôle	https://www.dh2.ch/
lifehub.swiss	http://lifehub.swiss/
MicroHub.Swiss - The Swiss Microtechnology & Micromanufacturing DIH	http://www.microhub.swiss
Swiss Smart Factory (SSF)	https://www.sipbb.ch/ssf

Policy

Federal Act on Human Genetic Testing	https://www.fedlex.admin.ch/eli/cc/2007/131/en
Health 2030 - scientific cooperation program	https://health2030.ch/
Swiss guideline for genetic counselling and testing for predisposition to breast, ovarian, pancreatic and prostate cancer	https://smw.ch/article/doi/smw.2021.w30038

FundingProgramme

Swiss Personalized Health Network	https://www.sphn.ch/en.html

PM-related Stakeholders

Name	Abbrev	Type	Link	Description
Biopôle life sciences campus in Lausanne			https://www.biopole.ch/	
BioValley Basel		Cluster	https://biovalley.ch/	
Business Association Chemistry Pharma Life Science		Cluster	https://www.scienceindustries.ch/	
Campus Biotech			https://www.campusbiotech.ch/	Swiss center of excellence in biotechnology and life sciences research focusing on three domains: Neuroscience & Neurotechnology, Digital Health and Global Health
digitalswitzerland		Cluster	https://digitalswitzerland.com/	cross-industry initiative
ELIXIR Switzerland		Infrastructure	https://elixir-europe.org/about-us/who-we-are/nodes/switzerland	
Federal Office of Public Health	EDI – BAG		https://www.bag.admin.ch/bag/en/home.html	national/federal policy health
Fondation Inartis			http://inartis.ch/	promouvoir l'innovation, notamment dans les domaines technologiques et des sciences de la vie, et de favoriser les interactions entre innovateurs, entreprises et institutions de recherche.
Geneva Biotech			https://geneva-biotech.com/	
Genomics Basel – Genomics Facility Basel | ETH Zurich		Research	https://bsse.ethz.ch/genomicsbasel/genomics-basel.html	
Health 2030 Genome Center		Cluster	https://www.health2030genome.ch/	
Innosuisse , Swiss Innovation Agency		Innovation Agency	https://www.innosuisse.ch/inno/en/home.html	
Institute of Genetics and Genomics of Geneva	iGE3	Research	https://www.ige3.unige.ch/	
Swiss Association for Telemedicine and eHealth	SATMeH		http://www.sgtm.ch/	
Swiss Biotech Association		Cluster	https://www.swissbiotech.org/	

Swiss Institute of Bioinformatics	SIB	Research	https://www.sib.swiss/	
Swiss Personalized Health Network	SPHN	Infrastructure	https://sphn.ch/	
Swiss Society of Medical Genetics	SGMG	Cluster	https://sgmg.ch/fr	
Switzerland Innovation Park Basel	SIP Basel	Infrastructure	https://sip-baselarea.com/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Swiss Institute of Bioinformatics	SIB	Research	https://www.sib.swiss/	
Swiss Personalized Health Network	SPHN	Infrastructure	https://sphn.ch/	
Swiss Society of Medical Genetics	SGMG	Cluster	https://sgmg.ch/fr	
Switzerland Innovation Park Basel	SIP Basel	Infrastructure	https://sip-baselarea.com/	

CY   Κύπρος (Kýpros) / Cyprus (National level)

Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_cyprus_english.pdf

Innovation Performance group (2021)	Moderate innovator
Population Density (per km² (2019)	96
Total population (2019)	875899
Proportion older 65y % (2019)	16,11%
Mountain, remote, island?	Non-mountain Island

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Health, ICTs and biomedical applications. Emphasis will be placed on digitalisation of medical records, quality and safety management, early warning, diagnosis, and early medical care provision, molecular biology, genetics, diagnosis and targeted drugs, public health and quality-of-life issues, medical tourism.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/CY

PM-related Best Practices
Interregional Collaborations

BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
CHERRIES | Constructing Healthcare Environments through Responsible Research Innovation and Entrepreneurship Strategies	https://www.cherries2020.eu/
GenoMed4All	https://genomed4all.eu/
HoCare - Delivery of Innovative solutions for Home Care by strengthening quadruple-helix cooperation in regional innovation chains	https://www.interregeurope.eu/hocare/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/

Project

SAPHIRe Regional Report

Biobanks, Cohorts and genomic initiatives

Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-
Molecular Medicine Research Center (MMRC) Biobank	http://www.ucy.ac.cy/mmrc/en/biobank

Digital Innovation Hubs

Cyprus Digital Innovation Hub	https://www.cyric.eu/cydi_hub/
KIOS Innovation Hub (KIH)	http://www.kios.ucy.ac.cy/

Policy

FundingProgramme

PM-related Stakeholders

Computation-based Science and Technology Research	CaSToRC	Research	https://castorc.cyi.ac.cy/	
Cyprus Institute of Neurology & Genetics		Research	www.cing.ac.cy	Partner GenoMed4All
CyRIC Research and Innovation Center			https://www.cyric.eu/	certified Business Innovation Center (BIC)
ELIXIR Cyprus		Infrastructure	https://elixir-europe.org/about-us/who-we-are/nodes/cyprus	observer
Gravity Ventures			https://gravity.ventures/	incubator
Invest Cyprus		Innovation Agency	https://www.investcyprus.org.cy/	
Ministry of Education, Culture, Youth and Sport		Policy	http://www.moec.gov.cy/en/	
Ministry of Health		Policy - Healthcare	https://www.moh.gov.cy/moh/moh.nsf/index_en/index_en?OpenDocument	national
Ministry of Research, Innovation and Digital Policy		Policy - Research & Innovation	https://www.dmrid.gov.cy/dmrid/research.nsf/home_en/home_en?opendocument	

16/05/2023

NIPD Genetics		Corporate - Medtech	https://nipd.com/	biotech company
Research and Innovation Foundation		Funding	https://www.research.org.cy/en/	
University of Cyprus	UCY	Research	https://www.ucy.ac.cy/en/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

CZ   Česko / Czech Republic (National level)

Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_cs_english.pdf

Innovation Performance group (2021)	Moderate innovator
Population Density (per km² (2019)	138
Total population (2019)	10649800
Proportion older 65y % (2019)	19,59%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	Advanced medicine and Drugs, biotechnology, medical devices, life sciences (KET : Photonics and micro-/nanoelectronics ; Advanced materials and nanotechnologies; Advanced manufacturing technologies; Life sciences technologies/biotechnologies; Artificial Intelligence; Digital security and connectivity)
url RIS3 2021-2027	https://www.mpo.cz/assets/en/business/ris3-strategy/2022/1/National-RIS3-Strategy_2.pdf
RIS3 priorities 2014-20	Health care, advanced medicine. Medicinal Products, Biotechnologies, Medical Devices and Life Sciences
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/CZ

PM-related Best Practices
Interregional Collaborations

BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
EATRIS - European infrastructure for translational medicinE	https://eatris.eu/
ECRIN - European Clinical Research Infrastructure Network	https://ecrin.org/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
EU-OPENSCREEN ERIC - European Infrastructure of Open Screening Platforms for Chemical Biology	https://www.eu-openscreen.eu/index.html
EuroNanoMed III (2016-2021) the new ERA-Net Cofund Action on Nanomedicine	https://euronanomed.net/
HoCare - Delivery of Innovative solutions for Home Care by strengthening quadruple-helix cooperation in regional innovation chains	https://www.interregeurope.eu/hocare/
STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/

ULTRAPLACAD - ULTRAsensitive PLAsmonic devices for early CAncer Diagnosis	https://ultraplacad.eu/
UNCAN - a European Initiative to UNderstand CANcer – Drafting a Blueprint for European Cancer Research	https://uncan.eu/

Project

Analysis of Czech Genomes for Theranostics	A-C-G-T	http://www.acgt.cz/en/
National Center for Medical Genomics	NCMG	https://ncmg.cz/en

Biobanks, Cohorts and genomic initiatives

Biobanking and BioMolecular resources Research Infrastructure Czech Republic	https://www.recamo.cz/en/bbmri/
Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Council for Research, Development and Innovation			http://www.vyzkum.cz/	Advisory body to the Government chaired by its vice-prime minister.
Czech Academy of Sciences / Akademie věd České republiky	AV CR / CAS	Research	https://www.avcr.cz/en/	

Czech Science Foundation / Grantová agentura České republiky	GA CR / CSF	Funding	www.gacr.cz	
Czech State Institute for Drug Control	SÚKL		http://www.sukl.eu/index.php?lang=2	
ELIXIR Czech Republic		Infrastructure	https://www.elixir-czech.cz/	
Institute of Photonics and Electronics - Academy of Sciences	UFE IPE	Research	http://www.ufe.cz/en	
MedChemBio cluster		Cluster	https://medchembio.org/	
Ministry of Education, Youth & Sport / Ministerstvo Školství, Mládeže a Tělovýchovy	MŠMT / MEYS	Policy - Research & Innovation	https://www.msmt.cz/research-and-development-1	MEYS is responsible for R&D and international collaboration therein
Ministry of Health / Ministerstvo zdravotnictví		Policy - Healthcare	https://www.mzcr.cz/en/the-ministry-of-health/	
Ministry of Industry & Trade / Ministerstvo Průmyslu a Obchodu	MPO / MIT	Policy - Research & Innovation	https://www.mpo.cz/	MIT is responsible for policies concerning innovations.
National Center for Medical Genomics / Národní centrum lékařské genomiky		Infrastructure	https://ncmg.cz/	
Nuclear Research Institute Řež	ÚJV Řež	Research	https://www.ujv.cz/en	
Technology Agency of the Czech Republic / Technologická agentura České republiky	TA CR	Funding	https://www.tacr.cz/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

CZ01   Praha /Prague

Innovation Performance group (2021)	Strong innovator -
Population Density (per km² (2019)	2714
Total population (2019)	1308632
Proportion older 65y % (2019)	18,88%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Life Sciences. Industrial and environmental biotechnology, biomedical technology, disease diagnostics and virology, biologically active materials, biopolymers, biocompatible materials, pharmaceutical industry, chemical processes and substances used in medicine.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/CZ01

PM-related Best Practices
Interregional Collaborations

B1MG - Beyond 1 Million Genomes Pan-European initiative to create genome-based health data infrastructure	https://b1mg-project.eu/
CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
PANCAIM - Pancreatic cancer AI for genomics and personalized Medicine	https://pancaim.eu/
Screen4Care - Accelerating Diagnosis for Rare Disease Patients Through Genetic Newborn Screening and Artificial Intelligence	https://www.screen4care.eu/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Czech Institute of Informatics, Robotics, and Cybernetics	https://www.ciirc.cvut.cz/
Research Center for Informatics	http://rci.cvut.cz/

Policy

FundingProgramme

PM-related Stakeholders

Czech Institute of Informatics, Robotics and Cybernetics / Český institut informatiky, robotiky a kybernetiky	CIIRC	Research	https://www.ciirc.cvut.cz/	
Charles University / University Karlova		Research	https://cuni.cz/UK-1.html	
Czech University of Life Sciences, Prague		Research	http://www.czu.cz/en/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

CZ04   Severozápad / Northwest Region

Severozápad (Northwest) a coal-intensive region includes the Karlovy Vary Region and Ústí nad Labem Region.

Innovation Performance group (2021)	Emerging innovator
Population Density (per km² (2019)	132
Total population (2019)	1115685
Proportion older 65y % (2019)	19,44%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   na

url RIS3 2014-2020

PM-related Best Practices
Interregional Collaborations

Project

Regional health projects from the Regional Operational Program of the North-West Cohesion Region		https://www.kzcr.eu/ROP/default.htm

Biobanks, Cohorts and genomic initiatives

16/05/2023

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Memberships/Representations In EU/international projects or initiatives in the area of PM

CZ051   **Liberecký kraj / Liberec**

Innovation Performance group (2021)	Moderate innovator -
Population Density (per km² (2019)	142
Total population (2019)	442356
Proportion older 65y % (2019)	20,00%
Mountain, remote, island?	> 50 % of population live and > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Nanomaterials and Nanotechnology. Nanofibers, nanomembranes, needle-free electrostatic spinning by alternating current for the production of yarn provided with nanofibres, production of coaxial or porous nanofibres, technology of durable antibacterial layers, technology of preparation of nanosurfaces or production of nanocomposites; nanomaterials for biomedical applications. engineering, research is being carried out in the Liberec Region in the area of software information technology supporting human-machine communication, IT or artificial intelligence. Biological data analysis

url RIS3 2014-2020   https://regionalni-rozvoj.kraj-lbc.cz/page1874/regionalni-inovacni-strategie-libereckeho-kraje/ris3/ris3-in-english

PM-related Best Practices

Interregional Collaborations

Project

SAPHIRe Regional Report

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Institute for Nanomaterials, Advanced Technologies and Innovation - Techincal University of Liberec	TUL	Research	https://cxi.tul.cz/en/	
Liberec Region / Liberecký kraj		Policy	https://www.kraj-lbc.cz/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

CZ071   **Olomoucký kraj**

Innovation Performance group (2021)	Moderate innovator -
Population Density (per km² (2019)	121
Total population (2019)	632492
Proportion older 65y % (2019)	20,00%
Mountain, remote, island?	> 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 biomedical and life science

url RIS3 2021-2027   https://www.kr-olomoucky.cz/download.html?id=75530

RIS3 priorities 2014-20   Biomedicine, Life Science and Health Care. The area involves especially health services, pharmacy, biotechnologies, chemical and biological analyses in the GMP, GLP and GCP regimes, specific analysing methods for medical substances and pharmaceutical products, bioinformatics and medical informatics, etc. The field also associates the key research, development and education capacities of the region (Palacký University Olomouc, the University Hospital in Olomouc and others). Advanced diagnostics using nanotechnology. Optics and High-Precision Mechanics, Optoelectronics. The area involves products within the entire value chain in optics, optomechanics, photonics, optoelectronics and high-precision mechanics, including the related production, observation and targeting devices for day and night vision, lighting and imaging systems for industrial applications, lighting technology for automotive, digital projection, semi-conductor industry, modern optical elements and technologies, and medical diagnostic devices.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/CZ071

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Digi2health	https://www.digi2health.com/

Policy

FundingProgramme

PM-related Stakeholders

Czech Nanotechnology Cluster / Český nanotechnologický klastr	ČNK	Cluster	http://www.nanotechnologie.cz/view.php?cisloclanku=2008100023&unvisible=1	
Institute of Molecular and Translational Medicine	IMTM	Research	https://imtm.cz/	
Military Hospital Klášterní Hradisko		Hospital	https://www.vnol.cz/index.php/cs/	
Olomouc Innovation Cluster / Olomoucký klastr inovací		Cluster	https://o-k-i.cz/	
Olomouc region / Olomoucký kraj			https://www.olkraj.cz/index.php	
Palacký University Olomouc		Research	https://www.upol.cz/en/	
University Hospital in Olomouc		Hospital	https://www.fnol.cz/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

DE — Deutschland / Germany (National level)

Germany is a federal state. The German health system as well as the research system has a complex governance structure where decision-making is shared between the federal and state levels, along with strong self-governing bodies. Germany is located in Central and Western Europe and has a population of 80 million. The country's S3 priorities include, digital economy and society: Intelligent mobility: Sustainable economy and energy: Civilian security: Innovative work environment and Healthy life. In the area of Health life there is a focus on combating common illnesses, individualized medicine, prevention and nutrition, innovative care, research on active substances and innovative medical technology. Germany is a federal state. The German health system has a complex governance structure where decision-making is shared between the federal and state levels, along with strong self-governing bodies. (from State of Health in the EU Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_de_english.pdf

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	235
Total population (2019)	83019213
Proportion older 65y % (2019)	21,54%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Combating common illnesses, individualised medicine, prevention and nutrition, innovative care, research on active substances and innovative medical technology.Digital economy and society. Industry 4.0, smart services, smart data, cloud computing, digital networks, digital science, digital education and digital life worlds
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DE

PM-related Best Practices
Interregional Collaborations

AML_PM - Improved Treatments of Acute Myeloid Leukaemias by Personalised Medicine	https://www.era-learn.eu/network-information/networks/era-permed/1st-joint-transnational-call-for-proposals-2018/improved-treatments-of-acute-myeloid-leukaemias-by-
BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
Codex4SMEs (Companion diagnostics expedited for small and medium-sized businesses)	https://www.nweurope.eu/projects/project-search/codex4smes-companion-diagnostics-expedited-for-smes/
ECRIN - European Clinical Research Infrastructure Network	https://ecrin.org/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/

EOSC4Cancer - European Open Science Cloud for Cancer	https://eosc4cancer.eu/
ERA CoBioTech	https://www.cobiotech.eu/home
ERA-NET NEURON Cofund2 togther for brain research	https://www.neuron-eranet.eu/
ERA-NET TRANSCAN-2 Aligning national/regional translational cancer research programmes and activities	https://www.era-learn.eu/network-information/networks/transcan-2
ERA-NET TRANSCAN-3	https://www.era-learn.eu/network-information/networks/transcan-3
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/
EULAC - PerMed	https://www.eulac-permed.eu/
EU-OPENSCREEN ERIC - European Infrastructure of Open Screening Platforms for Chemical Biology	https://www.eu-openscreen.eu/index.html
EuroNanoMed III (2016-2021) the new ERA-Net Cofund Action on Nanomedicine	https://euronanomed.net/
EU-STANDS4PM	https://www.eu-stands4pm.eu/
HEcoPerMed	https://hecopermed.eu/
imSAVAR	https://imsavar.eu/
JAseHN - Joint Action to support the eHealth Network (2015 -2018)	https://webgate.ec.europa.eu/chafea_pdb/health/projects/677102/summary
PERMIT - PERsonalised Medicine Trials	https://permit-eu.org/
Personalised Body Sensor Networks with Built-In Intelligence for Real-Time Risk Assessment and Coaching of Ageing workers, in all types of working and living environments	https://cordis.europa.eu/project/id/826304
STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/
UNCAN - a European Initiative to UNderstand CANcer – Drafting a Blueprint for European Cancer Research	https://uncan.eu/

Project

Genome-based Management of Patients in Precision Medicine (Ge-Med) Towards a Genomic Health Program (GE-MED)		https://clinicaltrials.gov/ct2/show/NCT04760522
German program using whole genome sequencing to diagnose rare diseases and cancer risk		https://www.biopharma-reporter.com/Article/2021/02/25/German-program-using-whole-genome-sequencing-to-diagnose-rare-diseases-and-cancer-risk

Biobanks, Cohorts and genomic initiatives

genomDE - The German Genome Initiative	https://www.bundesgesundheitsministerium.de/themen/gesundheitswesen/pe
German Biobank Node (GBN) - German Biobank Alliance	http://bbmri.de/
German National Cohort - NAKO Gesundheitsstudie	https://www.dkfz.de/en/epidemiologie-
Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-

SAPHIRe Regional Report

Digital Innovation Hubs

Health innovation hub	https://hih-2025.de/

Policy

Life Sciences program Made for Life Sciences Startups	https://www.germanaccelerator.com/our-programs/life-sciences/
Rahmenprogramm Gesundheitsforschung der Bundesregierung / Federal Government Health Research Framework Programme	https://www.gesundheitsforschung-bmbf.de/files/Rahmenprogramm_Gesundheitsforschung_barrierefrei.pdf

FundingProgramme

Ethical, legal and social aspects of modern life sciences	https://fisaonline.de/en/analyse-research-strategically/overview-of-funding-programmes/
i:DSem - Integrative Data Semantics in Systems Medicine	https://www.bmbf.de/foerderungen/bekanntmachung-920.html
ICGC-Mining in the International Cancer Concortium ICGC	http://icgc.org/
Individualized medical technology	https://www.bmbf.de/foerderungen/bekanntmachung-914.html
Individualized medical technology, 2nd call	https://www.bmbf.de/foerderungen/bekanntmachung-1286.html
Innovations for Individualised Medicine	https://www.gesundheitsforschung-bmbf.de/de/innovationen-fur-die-individualisierte-medizin.php
Innovative Stem Cell Technologies for individualized Medicine	https://www.bmbf.de/foerderungen/bekanntmachung-1070.html
Interdisciplinary Summer Schools in Systems Medicine	http://www.sys-med.de/en/young-investigators/summer-schools/
International Human Epigenome Consortium	http://www.ihec-epigenomes.org
Medical Informatics: Networking Data - Improving Health Care	http://www.medizininformatik-initiative.de/en/start
Methods and tools for individualised medicine	https://www.gesundheitsforschung-bmbf.de/de/methoden-werkzeuge-fuer-die-individualisierte-medizin.php
Nationale Forschungsnetzwerke f seltene Erkrankungen / National Research Net	https://www.bmbf.de/
Systems medicine demonstrator projects	http://www.sys-med.de/en/demonstrators/
Systems medicine junior research groups	http://www.sys-med.de/en/young-investigators/junior-research-groups/
Systems Medicine Junior Scientist Consortia	http://www.sys-med.de/en/young-investigators/junior-research-alliances/
Systems medicine research consortia	http://www.sys-med.de/en/consortia/

PM-related Stakeholders

BIO Deutschland		Cluster	https://www.biodeutschland.org/en/	
BioEconomy Cluster		Cluster	https://www.bioeconomy.de/en/	
BioValley Deutschland		Cluster	http://www.biovalley.de/	
Cluster of Excellence Precision Medicine in Chronic Inflammation	PMI	Research	https://www.precisionmedicine.de/en	
ELIXIR Germany		Infrastructure	https://elixir-europe.org/about-us/who-we-are/nodes/germany	
Federal Institute for Drugs and Medical Devices / Bundesinstitut für Arzneimittel und Medizinprodukte	BfArM		https://www.bfarm.de/DE/Home/_node.html	

Name	Abbr.	Type	Website	Notes
Federal Ministry for Economy & Energy / Bundesministerium für Wirtschaft und Energie	BMWi	Policy - Research & Innovation	http://www.bmwi.de	national policy economy
Federal Ministry of Education and Research / Bundesministerium für Bildung und Forschung	BMBF	Policy - Research & Innovation	https://www.bmbf.de/bmbf/en/home/home_node.html	national policy science & education
Federal Ministry of Health / Bundesministerium für Gesundheit	BMG	Policy - Healthcare	https://www.bundesgesundheitsministerium.de/	national policy health
Forschungszentrum Jülich	FZ Jülich	Research	https://www.fz-juelich.de/	national research infrastructure (brain research - neuroscience - nuclear physics -
Fraunhofer Institute for Toxicology and Experiment	Fraunhofer ITEM	Research	https://www.item.fraunhofer.de/en/focuses-of-research/tumortherapy.html	Focuses of research in Personalized Tumor Therapy
Gauss Center for Supercomputing	GCS	Infrastructure	https://www.gauss-centre.eu/	
Gematik			https://www.gematik.de/	
German Aerospace Center - Project Management Agency – Health / Deutsches Zentrum für Luft- und Raumfahrt; Projektträger, Gesundheit	DLR-PT		https://www.dlr.de/pt/en/desktopdefault.aspx/tabid-10722/18685_read-43472/	partner HEcoPerMed
German Biotechnology Industry Association in the Chemical Industry	DIB	Cluster	https://www.vci.de/dib/startseite.jsp	
German Cancer Research Center / Deutsches Krebsforschungszentrum	DKFZ	Research	https://www.dkfz.de/de/index.html	
German Center for Neurodegenerative Diseases / Deutsches Zentrum für Neurodegenerative Erkrankungen	DZNE	Research	https://www.dzne.de/forschung/forschungsbereiche/	
German Consortium for Translational Cancer Research / Deutschen Konsortium für Translationale Krebsforschung	DKTK	Research	https://dktk.dkfz.de/	
German Electron Synchrotron / Deutsches Elektronen-Synchrotron	DESY	Research	https://www.desy.de/	
German Federation of Industrial Research Associations / Arbeitsgemeinschaft industrieller Forschungsverein	AiF	Funding	https://www.aif.de/english/home.html	national research funding
German Network for Bioinformatics Infrastructure	de.NBI	Infrastructure	https://www.denbi.de/	
German Research Center for Artificial Intelligence	DFKI	Research	https://www.dfki.de/en/web	
German Research Foundation / Deutsche Forschungsgemeinschaft	DFG	Funding	https://www.dfg.de/en/index.jsp	national research funding
Institute for Quality and Efficiency in Health Care / Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen	IQWiG		https://www.iqwig.de/en/	
National High-Performance Computing Alliance	NHR	Infrastructure	https://www.nhr-gs.de/	
Oncology Cluster of Excellence "Image Guided and Functionally Instructed Tumor Therapies"	iFIT	Research	https://www.medizin.uni-tuebingen.de/en-de/medizinische-fakultaet/forschung/ifit-exzellenzcluster	

Paul-Ehrlich-Institut Federal Institute for Vaccines and Biomedicines	PEI		https://www.pei.de/DE/home/home-node.html	
Technologie- und Methodenplattform für die vernetzte medizinische Forschung e.V.	TMF	Infrastructure	https://www.tmf-ev.de/EnglishSite/Home.aspx	

Memberships/Representations In EU/international projects or initiatives in the area of PM

ICPerMed

16/05/2023 not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

DE1   Baden-Württemberg

Baden-Württemberg is a state in southwest Germany, east of the Rhine. The regions' S3 priorities in Health include: Health Medical technology: application of health care procedures in acute care, rehab and cures, as well as research into new frontiers, such as neurology or bionics. There is also a focus on Sustainable mobility concepts; ICT, green IT and intelligent products and, Environmental technologies, renewable energies and & resource efficiency

Innovation Performance group (2021)	Innovation leader -
Population Density (per km² (2019)	314
Total population (2019)	11069533
Proportion older 65y % (2019)	20,17%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 Artificial intelligence (AI) in medical technology and robotics (Industry 4.0, human-machine cooperation, robotics) or medical technology and healthcare health industry (smart prosthetics and diagnostic and assistance systems, personalised medicine in the treatment of widespread and rare diseases)/ Biotechnology is one of the most important key technologies for all sectors of the health industry: for the development of new therapeutic and diagnostic procedures in the pharmaceutical and medical technology industry, in diagnostics in connection with personalised medicine, which is becoming increasingly important, and in the production of biopharmaceuticals.increasingly important personalised medicine and in the production of biopharmaceuticals/ health economy

url RIS3 2021-2027   https://www.baden-wuerttemberg.de/fileadmin/redaktion/dateien/PDF/200204_Innovationsstrategie_BW_Fortschreibung_2020.pdf

RIS3 priorities 2014-20   e-Health. Medical technology, application of health care procedures in acute care, rehab and cures, as well as research into new frontiers, such as neurology or bionics

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DE1

PM-related Best Practices
Interregional Collaborations

AML_PM - Improved Treatments of Acute Myeloid Leukaemias by Personalised Medicine	https://www.era-learn.eu/network-information/networks/era-permed/1st-joint-transnational-call-for-proposals-2018/improved-treatments-of-acute-myeloid-leukaemias-by-
Boost4Health	https://www.boost4health.eu/
CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
Clinical trial of autologous adipose-derived mesenchymal stromal cells (ASC) in the treatment of mild to moderate osteoarthritis	https://cordis.europa.eu/project/id/643809
Codex4SMEs (Companion diagnostics expedited for small and medium-sized businesses)	https://www.nweurope.eu/projects/project-search/codex4smes-companion-diagnostics-expedited-for-smes/

SAPHIRe Regional Report

16/05/2023

CoNSENSo - COmmunity Nurse Supporting Elderly iN a changing Society	https://www.alpine-space.org/projects/consenso/en/home
EUCANCan: a federated network of aligned and interoperable infrastructures for the homogeneous analysis, management and sharing of genomic oncology data for Personalized Medicine	https://cordis.europa.eu/project/id/825835
EU-STANDS4PM	https://www.eu-stands4pm.eu/
imSAVAR	https://imsavar.eu/
IndividualizedPaediatricCure: Cloud-based virtual-patient models for precision paediatric oncology	https://cordis.europa.eu/project/id/826121
iNEXT-Discovery Project - Infrastructure for transnational access and discovery in structural biology	https://cordis.europa.eu/project/id/871037
INNAXE - Inclusive & aligned INNovation Agendas across Europe	https://cordis.europa.eu/project/id/101070847
ITHACA - InnovaTion in Health And Care for All	https://www.interregeurope.eu/ithaca/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
PERSONALIS - Personalized medical platform	https://www.interreg-oberrhein.eu/projet/personalis-personalisierte-medizinplattform-fur-patienten-mit-autoimmunkrankheiten/?pk_vid=3daa86e0083363221607006156983d3c
Personalised Body Sensor Networks with Built-In Intelligence for Real-Time Risk Assessment and Coaching of Ageing workers, in all types of working and living environments	https://cordis.europa.eu/project/id/826304
Regions4PerMed	https://www.regions4permed.eu/
S³martMed - The European Strategic Cluster Partnership for smart specialisation investments in medical technologies.	https://s3martmed.eu/
TIMELY - Artificial intelligence-powered apps for a healthy heart	https://cordis.europa.eu/project/id/101017424
TT4CL - Targeted Treatment for Cutaneous Leishmaniasis	https://tt4cl-h2020.eu/

Project

CleanMed Competence network		https://www.interregeurope.eu/policylearning/good-practices/item/3486/cleanmed-competence-network/
Life Science Accelerator Baden-Württemberg		https://www.lifescience-bw.de/
Research Campus M²OLIE - Mannheim Molecular Intervention Environment		https://www.interregeurope.eu/policylearning/good-practices/item/3426/research-campus-m2olie-mannheim-molecular-intervention-environment/

Biobanks, Cohorts and genomic initiatives

OSTEOPETR: International registry of patients suffering from osteopetrosis	https://www.orpha.net/consor/cgi-
The Human Short Stature Gene Allelic Variant Database	https://www.orpha.net/consor/cgi-

not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Digital Innovation Hubs

Application Center for Automation in Healthcare	https://pamb.ipa.fraunhofer.de/en.html
Fraunhofer Future Work Lab (FWL)	http://www.futureworklab.de
Fraunhofer IPA - Robot and Assistive Systems	http://www.ipa.fraunhofer.de/robotsystems
FZI Research Center for Information Technology	http://www.fzi.de/en/home/
Hahn-Schickard Gesellschaft für Angewandte Forschung e.V. (Hahn-Schickard)	https://www.hahn-schickard.de/
Institute of Reliable Embedded Systems and Communication Electronics	https://ivesk.hs-offenburg.de/
Mittelstand 4.0-Kompetenzzentrum Stuttgart	https://digitales-kompetenzzentrum-stuttgart.de/
Smart Data Innovation Lab	http://www.sdil.de/en/
Smart Data Solution Center Baden-Württemberg	https://sdsc-bw.de/
Software-Cluster	http://www.software-cluster.org
Steinbeis-Europa-Zentrum	https://www.steinbeis-europa.de/en/

Policy

Strategy papers on the future of Baden-Württemberg as a health location	Strategy papers on the future of Baden-Württemberg as a health location

FundingProgramme

PM-related Stakeholders

Albert Ludwig University of Freiburg	Uni Freiburg	Research	https://uni-freiburg.de/	
BioLAGO e.V. the health network- das Gesundheitsnetzwerk		Cluster	https://www.biolago.org/en/	
BioPro		Cluster	https://www.bio-pro.de/	
BioRegio STERN		Cluster	https://www.bioregio-stern.de/en	
BioRN Life Science Cluster Rhine-Neckar	BioRN	Cluster	https://www.biorn.org/	
CeGaT GmbH			https://www.cegat.com/	provider of genetic diagnostics and NGS services.
Center for Personalized Medicine | University of Tübingen	ZPM	Research	https://uni-tuebingen.de/exzellenzstrategie/forschung/plattformen/personalisierte-medizin/	

European Molecular Biology Laboratory - Heidelberg	EMBL Heidelberg	Research	https://www.embl.de/about us/general_information/HD_about/index.html	EMBL's headquarters and main laboratory site supports research, services, advanced training, and technology development
Heidelberg Institute for Theoretical Studies	HITS		https://www.h-its.org/de/	
Heidelberg Technology Park		Infrastructure	https://www.technologiepark-heidelberg.de/en/	
ICPO Foundation-International Centers for Precision Oncology			https://www.icpo.foundation/	foster communication between patients, medical experts, industry and governments and to build an international community bringing Precision Oncology and Targeted Isotope Imaging and Therapy to growing numbers of patients worldwide.
M²OLIE ("Mannheim Molecular Intervention Environment")		Infrastructure	http://www.m2olie.de/en/	
MedicalMountains		Cluster	https://medicalmountains.de/	
Medicial Innovations Incubator	MII		http://mi-incubator.com/en/home/	
Ministry for Science, Research and the Arts Baden-Württemberg Ministerium für Wissenschaft, Forschung und Kunst	MWK	Policy	https://mwk.baden-wuerttemberg.de/de/startseite/	regional policy science research
National Centre for Tumor Diseases - Nationales Centrum für Tumorerkrankungen Heidelberg	NCT	Research	https://www.nct-heidelberg.de/en/index.html	
Quantitative Biology Center (QBiC)		Research	https://uni-tuebingen.de/en/research/research-infrastructure/quantitative-biology-center-qbic/	
Universität Ulm		Research	https://www.uni-ulm.de/	
University Hospital and Medical Faculty of the Eberhard Karls University of Tübingen		Research	https://www.medizin.uni-tuebingen.de/de/medizinische-fakultaet/forschung -forschungsschwerpunkte	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); ICPerMed; European Regions Research and Innovation Network (ERRIN); European Connected Health Alliance (ECHA) https://echalliance.com/

DE2   Bayern / Bavaria

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	187
Total population (2019)	13076721
Proportion older 65y % (2019)	20,36%
Mountain, remote, island?	non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	
url RIS3 2021-2027	
RIS3 priorities 2014-20	connected mobility, e-Health, digital care, precision medicine and tele-medicine. Biotechnology and systems biology
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DE2

PM-related Best Practices

Interregional Collaborations

BioEndoCar - Biomarkers for diagnosis and prognosis of Endometrial Carcinoma	https://www.era-learn.eu/network-information/networks/transcan-2/third-joint-transnational-call-jtc-2016/biomarkers-for-diagnosis-and-prognosis-of-endometrial-
CE4BIG – Cluster Excellence for Business Innovation and Growth in the Health Sector	http://ce4big.lifescience.pl/
GenoMed4All	https://genomed4all.eu/
imSAVAR	https://imsavar.eu/
IndividualizedPaediatricCure: Cloud-based virtual-patient models for precision paediatric oncology	https://cordis.europa.eu/project/id/826121
INTERVENE - AI and human genetics to develop tools for disease prevention, diagnosis, and personalised treatment	https://www.interveneproject.eu/
MedIT - Information Technologies in Medicine	http://www.meditcluster.com/
Personalised Body Sensor Networks with Built-In Intelligence for Real-Time Risk Assessment and Coaching of Ageing workers, in all types of working and living environments	https://cordis.europa.eu/project/id/826304
Screen4Care - Accelerating Diagnosis for Rare Disease Patients Through Genetic Newborn Screening and Artificial Intelligence	https://www.screen4care.eu/
SPIDIA for Personalized Medicine - Standardisation of generic Pre-analytical procedures for In-vitro DIAgnostics for Personalized Medicine	https://cordis.europa.eu/project/id/733112

SAPHIRe Regional Report

Project

bioXclusters plus		https://www.bio-m.org/en/about-biom/projects/bioxclusters-plus.html
DigiMed Bayern		https://www.bio-m.org/en/about-biom/projects/digimed-bayern.html

Biobanks, Cohorts and genomic initiatives

Bavarian Genomes	https://www.bavarian-genomes.de/
German PAM/MFM registry: Patient registry for hereditary protein aggregate myopathies (PAM) / myofibrillar myopathies (MFM)	https://www.orpha.net/consor/cgi-bin/ResearchTrials_RegistriesMaterials.php?lng=EN&data_id=122149&Registry
MTCC (Muscle Tissue Culture Collection), Friedrich-Baur-Institute	http://www.klinikum.uni-muenchen.de/Friedrich-Baur-
The human TBX5 gene mutation database	https://www.orpha.net/consor/cgi-

Digital Innovation Hubs

Center Digitisation.Bavaria, ZD.B	https://zentrum-digitalisierung.bayern
Miro Innovation Lab	https://miroinnovationlab.de/de/miro-innovation-lab/
Mittelstand 4.0-Kompetenzzentrum Augsburg	https://kompetenzzentrum-augsburg-digital.de/
Munich Innovation Hub for Applied AI	https://innohubai.fortiss.org

Policy

FundingProgramme

PM-related Stakeholders

Bavarian Ministry of Economic Affairs, Regional Development and Energy / Wirtschaftsministerium Bayern		Policy	https://www.stmwi.bayern.de/	regional policy economy
Bavarian Research and Innovation Agency / Bayerische Forschungs- und Innovationsagentur		Innovation Agency	https://www.forschung-innovation-bayern.de/	regional innovation execution
Bavarian Research Foundation / Bayerischen Forschungsstiftung		Funding	https://forschungsstiftung.de/	regional research funding
Bavarian State Ministry for Science and Art / Bayerisches Staatsministerium für Wissenschaft und Kunst		Policy - Research & Innovation	https://www.stmwk.bayern.de/	regional policy research science

Bavarian State Ministry of Health and Care / Bayerisches Staatsministerium für Gesundheit und Pflege	STMGP	Policy - Healthcare	https://www.stmgp.bayern.de/ministerium/staatsminister/	regional policy health
Bayern Innovativ		Cluster	https://www.bayern-innovativ.de/	regional innovation execution
BioM Biotech Cluster Management for Munich and Bavaria	BioM	Cluster	https://www.bio-m.org/en.html	regional economy execution
BioPark Regensburg GmbH / BioRegio Regensburg			https://www.biopark-regensburg.de/en/	
Center for Nanotechnology	CeNTech	Research	https://www.centech.de/	regional research execution
Helmholtz Zentrum München		Research	https://www.helmholtz-munich.de/helmholtz-zentrum-muenchen/index.html	
Innovation and Start-Up Center Biotechnology	IZB	Infrastructure	https://www.izb-online.de/en/	regional Incubator
m4 Personalized Medicine / m4 Personalisierte Medizin		Cluster	https://m4.de/	
Medical Valley ecosystem European Metropolitan Region Nuremberg		Cluster	https://www.medical-valley-emn.de/en/	
Medical Valley EMN Nuremberg Metropolitan Region		Cluster	https://www.medical-valley-emn.de/	
Munich Leukemia Laboratory / Münchner Leukämielabor	MLL	Research	https://www.mll.com/en.html	regional research execution
Technical University of Munich	TUM	Research	https://www.tum.de/en/	
Universitätsklinikum Würzburg	UKW	Research	https://www.ukw.de/startseite/	
University Hospital Erlangen		Hospital	https://www.uk-erlangen.de/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR)

DE3   Berlin

The State of Berlin and its neighbour Brandenburg launched their Joint Innovation Strategy, also known as "innoBB", in 2011. Aimed at linking the capital region's business and R&D sectors to the international innovation community, the strategy focuses on five clusters: - Life sciences and healthcare ; Energy technology; Mobility (including transport and logistics); ICT, media and creative industries ; Photonics (including microsystems technology). Strong expertise is available in Berlin in various areas of personalised medicine such as single cells approaches, ATMPs, clinical studies, computational biology/medicine, patient derived and/or humanized test models, diagnostics.
For PM-related competences see https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_ba7df6a1180948738db46f6ad1fc4003.pdf

Innovation Performance group (2021)	Innovation leader
Population Density (per km² (2019)	4323
Total population (2019)	3644826
Proportion older 65y % (2019)	19,19%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Healthcare. Biotechnology and pharmaceuticals (regenerative therapies, glycobiotechnology, diagnostics and bio-analytics, companion diagnostics), medical technology (medical imaging, e-Health, biologised medical technology), innovative patient care and rehabilitation (tele-medicine, IT-based optimisation processes, developing innovative forms of patient care), IT-supported prevention, health promotion and health tourism
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DE3

PM-related Best Practices
Interregional Collaborations

Clinical trial of autologous adipose-derived mesenchymal stromal cells (ASC) in the treatment of mild to moderate osteoarthritis	https://cordis.europa.eu/project/id/643809
EUCANCan: a federated network of aligned and interoperable infrastructures for the homogeneous analysis, management and sharing of genomic oncology data for Personalized Medicine	https://cordis.europa.eu/project/id/825835
HRLN - North German association for high and high performance computing	http://www.hlrn.de/
iNEXT-Discovery Project - Infrastructure for transnational access and discovery in structural biology	https://cordis.europa.eu/project/id/871037
LifeTime	https://lifetime-initiative.eu/

OncoTrack - Methods for systematic next generation oncology biomarker development	http://www.oncotrack.eu/
OncoTrack - Methods for systematic next generation oncology biomarker development	http://www.oncotrack.eu/
Restore	https://www.restore-horizon.eu/
ScanBalt BioRegion	https://scanbalt.org/
Screen4Care - Accelerating Diagnosis for Rare Disease Patients Through Genetic Newborn Screening and Artificial Intelligence	https://www.screen4care.eu/
TIMELY - Artificial intelligence-powered apps for a healthy heart	https://cordis.europa.eu/project/id/101017424

Project

Berlin Health Data Space – AI to beat acute kidney failure		https://www.data-infrastructure.eu/GAIAX/Redaktion/EN/Artikel/UseCases/berlin-health-data-space.html
Research Platform Genomics		https://www.data-infrastructure.eu/GAIAX/Redaktion/EN/Artikel/UseCases/research-platform-genomics.html
Smart Health Connect		https://www.data-infrastructure.eu/GAIAX/Redaktion/EN/Artikel/UseCases/berlin-health-data-space.html

Biobanks, Cohorts and genomic initiatives

Zentrale Biobank der Charité	https://biobank.charite.de/

Digital Innovation Hubs

Cluster ICT, media and creative industries Berlin-Brandenburg	http://digital-bb.de/en/home
Competence Centre Mittelstand 4.0 Berlin	https://gemeinsam-digital.de/
EPoSS e.V. - European Technology Platform on Smart Systems Integration	https://www.smart-systems-integration.org

Policy

Charité 2030	https://www.charite.de/fileadmin/user_upload/portal_relaunch/die-charite/Strategie-2030/Strategie_Charite_2030_Wir-denken-Gesundheit-neu.pdf
Digital Health City Berlin Impulse für einen weltweit führenden Standort in der digitalen Gesundheitswirtschaft	https://www.healthcapital.de/files/documents/News/2018/Impulspapier.pdf
Health City Berlin 2030 Report of the Future Commission	https://www.berlin.de/rbmskzl/_assets/aktuelles/2019/oktober/gesundheitsstadt_2030_ergebnisbericht-der-zukunftskommission.pdf
Masterplan Health Capital Berlin Branbenburg 2021	https://www.healthcapital.de/files/user_upload/Masterplan_Broschuere_Web.pdf

FundingProgramme

PM-related Stakeholders

Berlin Institute for Health	BIH	Research	https://www.bihealth.org/en/about-us	strategic institution for translation research and precision medicine
Berlin Institute for Medical Systems Biology	BIMSB	Research	https://www.mdc-berlin.de/bimsb	strategic research centre incl. genome sequencing infrastructure
Sequencing Core Facility at Max Planck Institute		Infrastructure	https://www.molgen.mpg.de/SeqCore	genome sequencing infrastracture
Berlin Center for Advanced Therapies at Charité	BeCAT	Infrastructure	https://becat.charite.de/	
Berlin Partner for Business and Technology		Cluster	https://www.berlin-partner.de/en/	
Dahlem Centre for Genome Research and Medical Systems Biology gGmbH	DCGMS		https://dcgms2020.wixsite.com/dcgms	not-for-profit pioneering systems biology research group focused on the analysis, characterisation and modelling of diseases
DiagnostikNet|BB (Netzwerk Diagnostik Berlin-Brand		Cluster	https://www.diagnostik-bb.de/diagnostiknet-bb/	
Experimental Pharmacology and Oncology	EPO		www.epo-berlin.com	SME in preclinical pharmacology, pharmacokinetics, and toxicology for the characterization of novel anticancer therapeutics and predictive biomarkers like: cytostatics, biologicals (peptides, antibodies), (anti)-hormones, immunomodulators (cytokines), and gene therapeutics
HealthCapital Cluster Gesundheitswirtschaft Berlin-Brandenburg		Cluster	https://www.healthcapital.de/en	
HLRN-IV Complex at ZIB		Infrastructure	https://www.zib.de/research_services/supercomputing	
Institute for Transfusion Medicine at the Charité / Institut für Transfusionsmedizin der Charité	ITM	Research	https://transfusionsmedizin.charite.de/	
Max Delbrück Center for Molecular Medicine	MDC	Research	https://www.mdc-berlin.de/	
Max Planck Institute for Molecular Genetics		Research	https://www.molgen.mpg.de/2168/en	

mHealth-Dx Network			http://www.mhealth-dx.de/	
Pramo Molecular		Research	https://www.pramomolecular.com/	
Technische Universität Berlin	TU Berlin	Research	https://www.tu.berlin/en/	
The Simulated Human	Si-M	Infrastructure	https://www.si-m.org/	
Zuse Institute Berlin	ZIB	Research	https://www.zib.de/	interdisciplinary research institute for applied mathematics and data-intensive high-performance computing

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN); Council of European Bioregions (CEBR)

16/05/2023

DE4   Brandenburg

Innovation Performance group (2021)	Moderate innovator +
Population Density (per km² (2019)	87
Total population (2019)	2511917
Proportion older 65y % (2019)	24,48%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 Life sciences and technologies: Biotechnology ● Pharmaceutical Industry ● Medical Technology ● Digital Health Innovative care: Health promotion ● Prevention ● Care ● Social Security ● Outpatient care ● Inpatient Care ● Rehabilitation

url RIS3 2021-2027   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DE3

RIS3 priorities 2014-20   Healthcare. Biotechnology and pharmaceuticals (regenerative therapies, glycobiotechnology, diagnostics and bio-analytics, companion diagnostics), medical technology (medical imaging, e-Health, biologised medical technology), innovative patient care and rehabilitation (tele-medicine, IT-based optimisation processes, developing innovative forms of patient care), IT-supported prevention, health promotion and health tourism

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DE4

PM-related Best Practices

Interregional Collaborations

HRLN - North German association for high and high performance computing	http://www.hlrn.de/
INTERVENE - AI and human genetics to develop tools for disease prevention, diagnosis, and personalised treatment	https://www.interveneproject.eu/
ScanBalt BioRegion	https://scanbalt.org/
WideHealth - Widening Research on Pervasive and eHealth	https://cordis.europa.eu/project/id/952279

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Innovation Center of Modern Industry in Brandenburg Germany	http://www.imi4bb.de

Policy

Masterplan Health Capital Berlin Branbenburg 2021	https://www.healthcapital.de/files/user_upload/Masterplan_Broschuere_Web.pdf

FundingProgramme

PM-related Stakeholders

Brandenburg Land		Policy	https://www.brandenburg.de/alias/bb1.c.474722.de/	
DiagnostikNet|BB (Netzwerk Diagnostik Berlin-Brandenburg		Cluster	https://www.diagnostik-bb.de/diagnostiknet-bb/	
Hasso Plattner Institute Digital Health Centre	HPI DHC	Research	https://hpi.de/en/digital-health-center/home.html	Personalized Medicine, Machine Learning in Human Health, Connected Health
Health Capital Cluster Gesundheitswirtschaft Berlin-Brandenburg		Cluster	https://www.healthcapital.de/en	
Bioanalytics and Bioprocesses branch of the Fraunhofer Institute for Cell Therapy and Immunology IZI-BB	IZI-BB	Research	https://www.izi-bb.fraunhofer.de/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

DE5   Bremen

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	1744
Total population (2019)	682986
Proportion older 65y % (2019)	21,08%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Health economy and life sciences. Innovative materials.
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DE5

PM-related Best Practices

Interregional Collaborations

HRLN - North German association for high and high performance computing	http://www.hlrn.de/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

BIBA- Bremer Institut für Produktion und Logistik GmbH	http://www.biba.uni-bremen.de/

Policy

FundingProgramme

PM-related Stakeholders

Bremen Land		Policy	https://landesportal.bremen.de/senat/ressorts	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

DE6   Hamburg

Innovation Performance group (2021)	Innovation leader -
Population Density (per km² (2019)	2598
Total population (2019)	1841179
Proportion older 65y % (2019)	18,26%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Life sciences. Bio-technology, pharmaceuticals and medical technologies.Health industry

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DE6

PM-related Best Practices

Interregional Collaborations

CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
ELISE - European LIfe Science Ecosystems	https://www.interregeurope.eu/elise/
HRLN - North German association for high and high performance computing	http://www.hlrn.de/
ScanBalt BioRegion	https://scanbalt.org/

Project

The Biomarker for Cardiovascular Risk Assessment across Europe (BiomarCaRE)	BiomarCaRE	http://www.biomarcare.eu/

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Mittelstand 4.0 centre of excellence Hamburg	http://kompetenzzentrum-hamburg.digital

Policy

FundingProgramme

PM-related Stakeholders

European Molecular Biology Laboratory - Hamburg	EMBL Hamburg	Research	https://www.embl-hamburg.de/aboutus/general_information/HH_about/index.html	research in structural and infection biology
Life Science North Cluster (Hamburg and Schleswig-Holstein) / Life Science Nord	LSN Cluster	Cluster	https://lifesciencenord.de/en/	
University Medical Center Hamburg-Eppendorf / Universitaetsklinikum Hamburg-Eppendorf	UKE	Hospital	https://www.uke.de/english/index.html	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

DE7   Hessen

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	298
Total population (2019)	6265809
Proportion older 65y % (2019)	20,63%
Mountain, remote, island?	non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Life sciences, bio-economy and health industry. e-Health. Nano- and materials technology

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DE7

PM-related Best Practices

Interregional Collaborations

IndividualizedPaediatricCure: Cloud-based virtual-patient models for precision paediatric oncology	https://cordis.europa.eu/project/id/826121
NHC South-West Alliance	

Project

Biobanks, Cohorts and genomic initiatives

MAISTHRO-Registry : multicentric thrombophilia registry (MAIn-ISar-THROmbose-Register)	https://www.orpha.net/consor/cgi-bin/ResearchTrials_RegistriesMaterials.php?lng=EN&data_id=38385&Registry

SAPHIRe Regional Report

Digital Innovation Hubs

Institute of Production Management, Technology and Machine Tools (PTW)	http://www.ptw.tu-darmstadt.de
Mittelstand 4.0-Kompetenzzentrum Darmstadt	https://www.mit40.de

Policy

FundingProgramme

PM-related Stakeholders

Land Hessen		Policy	https://www.hessen.de/Regierung	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

DE8   Mecklenburg-Vorpommern / Mecklenburg-West Pomerania

Innovation Performance group (2021)	Moderate innovator +
Population Density (per km² (2019)	71
Total population (2019)	1609675
Proportion older 65y % (2019)	24,67%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 medical technology and biotechnology (and pharmacy) : Innovative diagnostic methods and products; medical technology; bioinformatics; biotechnology and active substances; preventive and personalised medicine

url RIS3 2021-2027   https://www.regierung-mv.de/Landesregierung/wm/Technologie/Regionale-Innovationsstrategie-2021%E2%80%932027/

RIS3 priorities 2014-20   Health and life sciences. Red bio-technology and pharmaceuticals, medical technology and regenerative medicine, bio-economy, tele-medicine and plasma-medicine

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DE8

PM-related Best Practices

Interregional Collaborations

BIC - Biomarker Commercialization	https://bicguide.biomarker.nu/
Clinical trial of autologous adipose-derived mesenchymal stromal cells (ASC) in the treatment of mild to moderate osteoarthritis	https://cordis.europa.eu/project/id/643809
Dish project	https://www.dishproject.eu/
ELISE - European LIfe Science Ecosystems	https://www.interregeurope.eu/elise/
EU-STANDS4PM	https://www.eu-stands4pm.eu/
HRLN - North German association for high and high performance computing	http://www.hlrn.de/
ScanBalt BioRegion	https://scanbalt.org/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

BioCon Valley Mecklenburg-Vorpommern		Cluster	https://www.bioconvalley.org/	
Department of Systems Biology and Bioinformatics - University of Rostock	SBI Rostock	Research	https://www.sbi.uni-rostock.de/	
Mecklenburg-Western Pomerania / Mecklenburg-Vorpommern		Policy	https://www.regierung-mv.de/	
Science and Technology Park North° East° / Wissenschafts- md Technologiepark Nord°Ost°	WITENO	Infrastructure	https://www.witeno.de/en/witeno/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

DE9 — Niedersachsen / Lower Saxony

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	169
Total population (2019)	7982448
Proportion older 65y % (2019)	21,92%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 Health research and health economics / individualised medicine / tailor-made prevention, diagnosis and therapy

url RIS3 2021-2027   https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_bbed18795be949d09fb98dad7a65a4d7.pdf

RIS3 priorities 2014-20   Health and social industry. Bio-economy

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DE9

PM-related Best Practices

Interregional Collaborations

DIALOG - Dialog for Innovation And LOcal Growth	http://www.interregeurope.eu/dialog/
HRLN - North German association for high and high performance computing	http://www.hlrn.de/
imSAVAR	https://imsavar.eu/
MIND	https://keep.eu/projects/17618/MIND-EN/
Screen4Care - Accelerating Diagnosis for Rare Disease Patients Through Genetic Newborn Screening and Artificial Intelligence	https://www.screen4care.eu/

Project

Recommendations for Biomarker Identification and Qualification in Clinical Proteomics		https://mosaiques-diagnostics.de/mosaiques-diagnostics/

SAPHIRe Regional Report

Biobanks, Cohorts and genomic initiatives

BMFS: Network for Congenital Bone Marrow Failure Syndromes (patient registry)	https://www.orpha.net/consor/cgi-
German Fanconi anemia registry	https://www.orpha.net/consor/cgi-
Hannover Unified Biobank	https://www.mhh.de/institute-zentren-forschungseinrichtungen/hannover-

Digital Innovation Hubs

Digital Innovation Hub for AI and Cybersecurity (DIH4AISec)	https://www.l3s.de/en/innovation/hub
L3S Digital Innovation Hub	https://www.l3s.de/en/innovation/hub

Policy

FundingProgramme

PM-related Stakeholders

Hannover Medical School	MHH	Research	https://www.mhh.de/	
Mosaiques Diagnostics & Therapeutics AG		Corporate - Medtech	https://mosaiques-diagnostics.de/mosaiques-diagnostics/	
Lower Saxony / Niedersachsen		Policy	https://www.niedersachsen.de/politik_staat/landesregierung_ministerien/die-niedersaechsische-landesregierung-20076.html	
University Medical Center Göttingen	UMG	Hospital	https://www.umg.eu/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

DEA — Nordrhein-Westfalen / North Rhine-Westphalia

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	530
Total population (2019)	17932651
Proportion older 65y % (2019)	20,99%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 innovative medicine, health and lifesciences

url RIS3 2021-2027   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DEA

RIS3 priorities 2014-20   Information and communication technologies. Embedded systems, machine-to-machine communication, sensor & actor networks, software engineering, cloud computing, communication networks. medical technology, smart home, smart cities, nano & micro material technologies, lifesciences,

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DEA

PM-related Best Practices

Interregional Collaborations

Boost4Health	https://www.boost4health.eu/
DIGI-B-CUBE	https://digibcube.eu/
Healthy Aging	https://www.interregemr.eu/projects/healthyaging-en
i2-CoRT (Innovation and Implementation acceleration for Complex Rehabilitation Technology)	https://www.i2-cort.eu/
ImmunoSep - Personalized immunotherapy in sepsis: a precision medicine based approach	https://www.immunosep.eu/
MatMed	https://www.matmed.eu/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
MIND	https://keep.eu/projects/17618/MIND-EN/
Personalised Body Sensor Networks with Built-In Intelligence for Real-Time Risk Assessment and Coaching of Ageing workers, in all types of working and living environments	https://cordis.europa.eu/project/id/826304
Restore	https://www.restore-horizon.eu/

Screen4Care - Accelerating Diagnosis for Rare Disease Patients Through Genetic Newborn Screening and Artificial Intelligence	https://www.screen4care.eu/
ULTRAPLACAD - ULTRAsensitive PLAsmonic devices for early CAncer Diagnosis	https://ultraplacad.eu/

Project

Biobanks, Cohorts and genomic initiatives

Nephronophthisis registry for patients in Germany, Austria and Switzerland	https://www.medizin.uni-muenster.de/nephreg/das-register/

Digital Innovation Hubs

Aachen DIH Center for Robotics in Healthcare	http://www.robotics.ukaachen.de/
Digital Hub Logistics	http://www.digitalhublogistics.com
Siegener Mittelstandsinstitut (SMI)	http://www.uni-siegen.de/smi/
Technology Transfer via Multinational Application Experiments (TETRAMAX)	https://www.tetramax.eu

Policy

FundingProgramme

PM-related Stakeholders

Cluster Industrial Biotechnology	CLIB	Cluster	https://www.clib2021.de/	
Institute for Neuroscience and Medicine / Institut für Neurowissenschaften und Medizin	INM	Research	https://www.fz-juelich.de/portal/DE/Institute/InstitutNeurowissenschaftenMedizin/_node.html	

Life and Medical Sciences of Rheinische Friedrich-Wilhelms-Universität Bonn	LIMES UBO	Research	https://www.limes-institut-bonn.de/en/home/	
MedLife - life science network around Aachen		Cluster	https://www.medlife-ev.de/de/	
Network Biotechnology North Rhine-Westphalia / Netzwerk der Biotechnologie Nordrhein-Westfalen	BIO.NRW	Cluster	https://bio.nrw.de/	
Network Health Economy Münsterland / Netzwerk Gesundheitswirtschaft Münsterland	GEWI-Münsterland	Cluster	https://www.gewi-muensterland.de/de/	
North Rhine-Westphalia / Nordrhein-Westfalen		Policy	https://www.land.nrw/	
University Hospital Bonn	UKB	Hospital	https://www.ukbonn.de/patient_innen/international/english/	
University of Siegen		Research	https://www.uni-siegen.de/start/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

DEB   Rheinland-Pfalz / Rhineland-Palatinate

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	207
Total population (2019)	4084844
Proportion older 65y % (2019)	21,73%
Mountain, remote, island?	non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Life sciences and health industry
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DEB

PM-related Best Practices

Interregional Collaborations

BeWell – Blueprint Alliance for a Future Health Workforce Strategy on Digital and Green Skills	https://ehma.org/bewell-blueprint-alliance-for-a-future-health-workforce-strategy-on-digital-and-green-skills/
DIGI-B-CUBE	https://digibcube.eu/
NHC South-West Alliance	
PERSONALIS - Personalized medical platform	https://www.interreg-oberrhein.eu/projet/personalis-personalisierte-medizinplattform-fur-patienten-mit-autoimmunkrankheiten/?pk_vid=3daa86e0083363221607006156983d3c
Personalised Body Sensor Networks with Built-In Intelligence for Real-Time Risk Assessment and Coaching of Ageing workers, in all types of working and living environments	https://cordis.europa.eu/project/id/826304

Project

SAPHIRe Regional Report

Biobanks, Cohorts and genomic initiatives

Mainz registry of congenital anomalies - contributes to the EUROCAT network	https://www.orpha.net/consor/cgi-

Digital Innovation Hubs

DFKI Human Centric AI Innovation Hub	https://www.dfki.de/en/web/
Technologie-Initiative SmartFactory KL e.V.	https://smartfactory.de

Policy

FundingProgramme

PM-related Stakeholders

Cluster for Individualized Immune Intervention	Ci3	Cluster	https://ci-3.de/	
Ministry of Science and Health / Ministeriums für Wissenschaft und Gesundheit	MWG	Policy	https://mwwk.rlp.de/de/startseite/	regional policy science education
Rhineland-Palatinate / Rheinland-Pfalz		Policy	https://www.rlp.de/de/startseite/	
Technische Universität Kaiserslautern	TU Kaiserslautern	Research	https://www.uni-kl.de/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

16/05/2023   not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

DEC   Saarland

Innovation Performance group (2021)	Strong innovator -
Population Density (per km² (2019)	386
Total population (2019)	990509
Proportion older 65y % (2019)	23,75%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Health care and medical technology, nano- and biotechnology

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DEC

PM-related Best Practices

Interregional Collaborations

NHC South-West Alliance	

Project

Biobanks, Cohorts and genomic initiatives

SAPHIRe Regional Report

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Fraunhofer Institute for Biomedical Engineering	IBMT	Research	https://www.ibmt.fraunhofer.de/en.html	
Saarland		Policy	https://www.saarland.de/EN/home/home_node.html	

Memberships/Representations In EU/international projects or initiatives in the area of PM

DED — Sachsen / Saxony

The Free State of Saxony is a landlocked state of Germany, bordering the states of Brandenburg, Saxony-Anhalt, Thuringia, Bavaria, as well as the countries of Poland and the Czech Republic. The regions' S3 priorities include a focus on ICT and digital communication: IT infrastructures, e-commerce, e-business, e-government, software development, IT services, mobile embedded elements for communication among daily objects and towards their environment (embedded systems and internet of things), self-learning systems for the creation and storage of knowledge and learning, time and resource efficient computing systems for simulation and visualisation, applications for IT security with legal implications (identity management, authentification, linking information) and cyber physical systems. There is also a focus on photonics, nanotechnology, biotechnology, new materials and advanced production technologies. For PM-related competences see https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_ed72842248bc490fb44e4b5dfa2410ef.pdf

Innovation Performance group (2021)	Dresden Strong Innovator +; Chemnitz Strong Innovator − ; Leipzig Strong Innovator +
Population Density (per km² (2019)	224
Total population (2019)	4077937
Proportion older 65y % (2019)	26,15%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 Regenerative Medicine / Bio Informatics / Molecular Bio engineering / Cell Therapy / Smart Medical Device / New Therapies / eHealth for Diagnostics

url RIS3 2021-2027   http://innovationsstrategie.sachsen.de/en/index.html

RIS3 priorities 2014-20   nanotechnology, biotechnology

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DED

PM-related Best Practices
Interregional Collaborations

digital Life4CE	https://www.interreg-central.eu/Content.Node/digitalLIFE4CE.html
ERA CoBioTech	https://www.cobiotech.eu/home
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/
GenoMed4All	https://genomed4all.eu/
imSAVAR	https://imsavar.eu/
LEGACy - CeLac and European consortium for a personalized medicine approach to Gastric Cancer	https://legacy-h2020.eu/
OncoTrack - Methods for systematic next generation oncology biomarker development	http://www.oncotrack.eu/

Regions4PerMed	https://www.regions4permed.eu/
TIMELY - Artificial intelligence-powered apps for a healthy heart	https://cordis.europa.eu/project/id/101017424
TITTAN - (Network for Technology,Innovation and Translation in Ageing	https://www.interregeurope.eu/tittan/

Project

CCS Telehealth East Saxony		https://www.carusconsilium.de/de/projekte/telemedizin/ccs-telehealth-ostsachsen
Integrated care portal multiple sclerosis	IBMS	https://www.carusconsilium.de/de/projekte/telemedizin/ibms
SOS care		https://www.carusconsilium.de/de/projekte/telemedizin/sos-care
Telepark		https://www.uniklinikum-dresden.de/de/das-klinikum/universitaetscentren/zegv/projekte/telepark

Biobanks, Cohorts and genomic initiatives

BioBank Dresden	https://www.nct-dresden.de/forschung/core-units/biobank-dresden.html
DKMS Stem Cell Bank	https://www.dkms-nabelschnurblutbank.de/
Leipzig Medical Biobank	https://life.uni-

Digital Innovation Hubs

Digital Innovation Hub 'Smart Production Systems Saxony' – InnoSax	http://innosax-smartproductionsystems.de
Experimental and Digital Factory (EDF)	https://www.tu-chemnitz.de/mb/FabrPlan/edf.php.en
Innovation Platform Smart Production Systems Saxony - InnoSax	http://innosax.de/
simul+InnovationHub	https://www.smul.sachsen.de/simul-innovationhub-25679.html
Smart Infrastructure Hub Leipzig	http://www.smartinfrastructurehub.com
Smart Systems Hub - Enabling IoT	http://www.smart-systems-hub.de

Policy

Guideline of the Saxon State Ministry for Social Affairs and Consumer Protection for the sustainable promotion of digitization in the health system in the Free State of Saxony (RL eHealthSax)	https://www.revosax.sachsen.de/vorschrift/18539-RL-eHealthSax

FundingProgramme

PM-related Stakeholders

BioSaxony, The Biotechnology & Medical Technology	Biosaxony	Cluster	https://www.biosaxony.com/en	
Biotype			http://www.biotype.de/	Molecular diagnostic company
Carus Consilium Saxony health region	CCS health region		https://www.carusconsilium.de/	
Center for Medicine Innovation	CMI	Research	https://medicine-innovation.org/	
Center for Molecular Bioengineering — TU Dresden	B CUBE	Research	https://tu-dresden.de/cmcb/bcube	
Center for Regenerative Therapies TU Dresden	CRTD - TUD	Research	https://tu-dresden.de/cmcb/crtd	
Else Kröne-Fresenius Center for Digital Health		Research	https://digitalhealth.tu-dresden.de/	
Healthy Saxony		Cluster	https://www.healthy-saxony.com/	
Innovation Center Computer Assisted Surgery -Leipzig University	ICCAS	Research	https://www.iccas.de/	
Leipzig University		Research	https://www.uni-leipzig.de/forschung/forschungsprofil/strategische-forschungsfelder/nachhaltige-grundlagen-fuer-leben-und-gesundheit/	
Max Planck Institute of Molecular Cell Biology and Genetics	MPI-CBG	Research	https://www.mpi-cbg.de/home/	
OncoRay - National Center for Radiation Research in Oncology		Research	https://www.oncoray.de/	
Research group "Clinical Artificial Intelligence" Else Kroener Fresenius Center for Digital Health at Technical University Dresden		Research	https://jnkather.github.io/	
SaxoCell® - the Saxon innovation cluster in the area of cell and gene therapy	CGT	Cluster	https://www.saxocell.de/en/home/	
Saxon Incubator for Clinical Translation	SIKT	Research	https://www.sikt.uni-leipzig.de/	
Saxon State Ministry for Science, Culture and Tourism / Sächsisches Staatsministerium für Wissenschaft, Kultur und Tourismus	SMWK	Policy - Research & Innovation	https://www.smwk.sachsen.de/	regional policy science & innovation
Saxon State Ministry for Social Affairs and Social Cohesion / Sächsisches Staatsministerium für Soziales und Gesellschaftlichen Zusammenhalt	SMS	Policy - Healthcare	https://www.sms.sachsen.de/	regional policy health
State Ministry for Culture / Staatsministerium für Kultus	SMK	Policy	https://www.smk.sachsen.de/	
State Ministry of Economy, Labor and Transport / Staatsministerium für Wirtschaft, Arbeit und Verkehr	SMWA	Policy - Research & Innovation	https://www.smwa.sachsen.de/	regional policy economy

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN); Other : ERA-Net PerMed

DEE   Sachsen-Anhalt / Saxony-Anhalt

Innovation Performance group (2021)	Moderate innovator +
Population Density (per km² (2019)	109
Total population (2019)	2208321
Proportion older 65y % (2019)	26,49%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   bioeconomy. Health and medicine

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DEE

PM-related Best Practices

Interregional Collaborations

Vanguard Initiative Smart Health Pilot Project	https://www.s3vanguardinitiative.eu/pilots/smart-health

Project

Biobanks, Cohorts and genomic initiatives

Centre Saxony-Anhalt registry of congenital anomalies - contributes to the EUROCAT network	https://www.orpha.net/consor/cgi-bin/ResearchTrials_RegistriesMaterials.php?lng=EN&data_id=31077&Registry

SAPHIRe Regional Report

Digital Innovation Hubs

VDTC of the Fraunhofer IFF	https://www.produktion.fraunhofer.de/de/forschung-im-verbund/forschungskooperationen/digitalinnovationhubs.html

Policy

FundingProgramme

PM-related Stakeholders

Institute for Experimental Internal Medicine (Uni Magdeburg)		Research	http://www.ieim.ovgu.de/	
Saxony-Anhalt / Sachsen-Anhalt		Policy	https://www.sachsen-anhalt.de/startseite/	
University Medicine Hall Universitätsmedizin		Research	https://www.medizin.uni-halle.de/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

DEF   Schleswig-Holstein

Innovation Performance group (2021)	Strong innovator -
Population Density (per km² (2019)	188
Total population (2019)	2896712
Proportion older 65y % (2019)	22,98%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	Life sciences: medical technology, pharmaceuticals and the healthcare sector / AI for medicine - health
url RIS3 2021-2027	https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_7dd73727982040bdbdf365f128525628.pdf
RIS3 priorities 2014-20	Life sciences. Medical technology/surgery technology, pharmaceuticals, biotechnology, diagnostics, therapies, imaging, laboratory equipment and implantology. e-health with telemedicine and imaging processe
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DEF

PM-related Best Practices

Interregional Collaborations

CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
Dish project	https://www.dishproject.eu/
EU-STANDS4PM	https://www.eu-stands4pm.eu/
EUVECA - European Platform for Vocational Excellence in Health Care	https://ehma.org/euveca-european-platform-for-vocational-excellence-in-health-care/
HRLN - North German association for high and high performance computing	http://www.hlrn.de/
ScanBalt BioRegion	https://scanbalt.org/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

UniTransferKlinik (UTK)	https://www.industrie-in-klinik.de/

Policy

FundingProgramme

PM-related Stakeholders

Center for Open Innovation in Connected Health at University of Lübeck	COPICOH	Research	https://www.copicoh.uni-luebeck.de/zentrum.html	interdisciplinary research network combining clinical, methodological and computer science competencies
Cluster of Excellence "Precision Medicine in Chronic Inflammation"		Research	https://www.medizin.uni-kiel.de/de/forschung/forschungsinitiativen/exzellenzcluster-inflammation-at-interfaces	
Institute of Clinical Molecular Biology at Christian-Albrechts-University Kiel	IKMB		https://www.ikmb.uni-kiel.de/	
Land Schleswig-Holstein		Policy	https://www.schleswig-holstein.de/EN/StateGovernment/state_government_node.html	
Life Science North Cluster (Hamburg and Schleswig-Holstein) / Life Science Nord	LSN Cluster	Cluster	https://lifesciencenord.de/en/	
Ministry of Economic Affairs, Transport, Employment, Technology and Tourism / Ministerium für Wirtschaft, Verkehr, Arbeit, Technologie und Tourismus Schleswig-Holstein		Policy	https://www.schleswig-holstein.de/EN/StateGovernment/VII/vii_node.html	

Ministry of Education, Science and Cultural Affairs / Ministerium für Bildung, Wissenschaft und Kultur Schleswig-Holstein		Policy	https://www.schleswig-holstein.de/EN/StateGovernment/III/iii_node.html	
Ministry of Social Affairs, Health, Youth, Family and Senior Citizens / Ministerium für Soziales, Gesundheit, Jugend, Familie und Senioren Schleswig-Holstein		Policy	https://www.schleswig-holstein.de/EN/StateGovernment/VIII/viii_node.html	
University Hospital Schleswig-Holstein	UKSH	Hospital	https://www.uksh.de/en/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

DEG   **Thüringen / Thuringia**

The Free State of Thuringia is a German federal state, bordered by Saxony, Saxony-Anhalt, Lower Saxony, Hesse and Bavaria. Thuringia was home to 2.16m inhabitants in 2018.

In the region, the RIS3 strategy highlights a number of fields of specialisation, one of which is healthy life and health industry. This Includes medical technology, pharmaceuticals, healthy ageing, nutrition industry, analytics, diagnostics and research on infections, biotechnology and biophotonics.
Other priorities are industrial production and systems; sustainable energy and resource use; sustainable and smart mobility and logistics; ICT and innovative services close to production, and wild cards which includes: adaptive signal analysis and neuroinformatics, textile technologies, fabLabs, internet of things and smart home.

Innovation Performance group (2021)	Strong innovator -
Population Density (per km² (2019)	132
Total population (2019)	2143145
Proportion older 65y % (2019)	25,72%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	Healthy living and the healthcare sector : medical technology, biotechnology, pharmaceuticals, food industry, and healthcare / In-vitro diagnostics - analytics / healthy living - ageing
url RIS3 2021-2027	https://www.cluster-thueringen.de/en/innovation-strategy/
RIS3 priorities 2014-20	Healthy life and health industry. eHealth. Medical technology, pharmaceuticals, healthy ageing, nutrition industry, analytics, diagnostics and research on infections, biotechnology and biophotonics
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DEG

PM-related Best Practices
Interregional Collaborations

ImmunoSep - Personalized immunotherapy in sepsis: a precision medicine based approach	https://www.immunosep.eu/
imSAVAR	https://imsavar.eu/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/

SAPHIRe Regional Report

not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Project

Biobanks, Cohorts and genomic initiatives

Integrierte Biobank Jena	https://www.uniklinikum-jena.de/ikcl/ibbj.html

Digital Innovation Hubs

Mittelstand 4.0 Competence Centre Ilmenau	https://www.kompetenzzentrum-ilmenau.digital/
SpectroNet - International Collaboration Cluster	https://www.spectronet.de

Policy

Thuringian digital strategy	https://www.thueringen.de/mam/th6/pub/digitalstrategie_2017.pdf

FundingProgramme

PM-related Stakeholders

Clinic for Molecular Radiotherapy at Central Clinic Bad Berka		Research	https://www.rhoen-gesundheitsblog.de/molekulare-radiotherapie/	Innovative molecular radiotherapy
InfectoGnostics Research Campus Jena		Research	https://www.infectognostics.de/en/	
Institute for Bioprocessing and Analytical Measurement Techniques	IBA	Research	https://www.iba-heiligenstadt.de/	
Jena University hospital		Hospital	https://www.uniklinikum-jena.de/en/University+Hospital.html	
Leibniz Center for Photonics in Infection Research	Leibniz Health Technologies		Research	https://www.leibniz-healthtech.de/lpi/	
Medways		Cluster	https://www.medways.eu/	

Research Centre of Medical Technology and Biotechnology / Forschungszentrum für Medizintechnik und Biotechnologie	FZMB	Research	https://www.fzmb.de/index_en.html	
State Development Company Thuringia / Landesentwicklungsgesellschaft Thüringen			https://www.leg-thueringen.de/	economic development agency
Thuringa / Thüringen		Policy	https://www.landesregierung-thueringen.de/regierung/kabinett	
Thuringian ClusterManagement	ThCM	Cluster	https://www.cluster-thueringen.de/en/innovation-strategy/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

DK   Danmark / Denmark (National level)

Country Health Profile 2021 https://health.ec.europa.eu/system/files/2021-12/2021_chp_da_english.pdf

Innovation Performance group (2021)	Innovation leader
Population Density (per km² (2019)	138
Total population (2019)	5806081
Proportion older 65y % (2019)	19,57%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 Life Science and Welfare Technology

url RIS3 2021-2027   https://erhvervsfremmebestyrelsen.dk/strategi

RIS3 priorities 2014-20   Life Science and Welfare Technology. Life Science and Welfare Technology covers the whole value chain within medicine, biotech and medico products. Welfare technology includes technical and digital aids and solutions used in elder care and social services as well as in the health sector.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DK

PM-related Best Practices
Interregional Collaborations

BIC - Biomarker Commercialization	https://bicguide.biomarker.nu/
Dish project	https://www.dishproject.eu/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/
EU-OPENSCREEN ERIC - European Infrastructure of Open Screening Platforms for Chemical Biology	https://www.eu-openscreen.eu/index.html
HealthData@EU Pilot POC	https://www.ehds2pilot.eu/
ScanBalt BioRegion	https://scanbalt.org/
UNCAN - a European Initiative to UNderstand CANcer – Drafting a Blueprint for European Cancer Research	https://uncan.eu/

SAPHIRe Regional Report

Project

Biobanks, Cohorts and genomic initiatives

Bio- and Genome Bank Denmark	https://www.regioner.dk/rbgben/
Danish National Biobank	https://www.danishnationalbiobank.com/
GenomeDenmark platform	http://www.genomedenmark.com/english/
Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-

Digital Innovation Hubs

Policy

Action Plan for PM	https://www.regioner.dk/media/1280/handlingsplan-for-personlig-medicin.pdf
Danish Growth Plan for life science	https://eng.em.dk/news/2018/marts/new-growth-plan-to-pave-the-way-for-world-class-danish-life-science/
Danish National Genome Center	https://eng.ngc.dk/
Danish RESEARCH2025 catalogue	https://ufm.dk/en/publications/2018/filer/forsk25_katalog_eng_enkelt.pdf
Denmark – sustainable healthcare for the future	https://www.healthcaredenmark.dk/media/1imp5nvy/sustainable-healthcare-future.pdf
Denmark a telehealth nation - whitepaper	https://www.healthcaredenmark.dk/media/r2rptq5a/telehealth-v1.pdf
Handlingsplan for personlig medicin / Action plan for personal medicine for 5 Danish regions	https://www.regioner.dk/media/1280/handlingsplan-for-personlig-medicin.pdf
National strategi for Personlig Medicin 2017-2020 / National Strategy for Personalized Medicine 2017-2020	https://sum.dk/English/Healthcare-in-Denmark-An-Overview/Personalised-Medicine.aspx
Roadmap for the Danish National Genome Center	https://eng.ngc.dk/news/2019/december/nnf
Strategic contribution to the biobank area	http://www.e-pages.dk/regioner/170/
Strategy for Life Science	https://www.regeringen.dk/media/10337/em_strategi-for-life-science-og-sundhedsinnovation_webtilgaengelig_20210419-1-1.pdf
The Danish Digitalisation Strategy 2018-2022	https://www.healthcaredenmark.dk/media/ljiixkr5/en_the_danish_digitalisation_strategy2018-2022.pdf

FundingProgramme

Grand Solutions	https://innovationsfonden.dk/en/investment/grand-solutions

SAPHIRe Regional Report

PM-related Stakeholders

Danish Health Authority		Policy - Healthcare	https://sst.dk/en/english	
BETA.HEALTH, Danish national health-innovation platform		Funding	https://betahealth.dk/	
BIOPeople Danish Life Science Cluster		Cluster	https://www.danishlifesciencecluster.dk/	
Danish Health Data Authority		Policy	https://sundhedsdatastyrelsen.dk/da/english/about	
Danish Medicines Agency			https://laegemiddelstyrelsen.dk/en	
Danish National Genome Center	NGC	Research	https://ngc.dk/	
Danish Society for Medical Genetics	DSMG	Cluster	https://dsmg.dk/	
digital gateway to the healthcare system			https://www.sundhed.dk/	Everything about your health gathered in one place
Dx-Rx Institute			http://www.dx-rx.dk/	Research and consultancy related to companion diagnostics and drug-diagnostic codevelopment
ELIXIR Denmark		Infrastructure	https://www.elixir-denmark.org/	
Innovation Fund Denmark - Innofond	IFD	Funding	https://innovationsfonden.dk/en	
Lundbeck foundation / Lundbeckfonden		Funding	https://lundbeckfonden.com/en	
MedCom			https://www.medcom.dk/medcom-in-english	non-profit organisation financed and owned by The Ministry of Health, Danish Regions and Local Government Denmark. MedCom facilitates the cooperation between authorities, organizations and private firms linked to the Danish healthcare sector.
Danish Agency for Higher Education and Science within Ministry of Higher Education and Science / Uddannelses- og Forskningsministeriet		Policy - Research & Innovation	https://ufm.dk/en	and funding
Ministry of the Interior and Health	SuM	Policy - Healthcare	https://sum.dk/english	
Novo Nordisk foundation / Novo Nordisk fonden		Funding	https://novonordiskfonden.dk/en/	
Statens Serum Institut	SSI	Policy - Healthcare	https://www.ssi.dk/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); ICPerMed

Council of European Bioregions (CEBR); ICPerMed

DK01   Hovedstaden / Capital Region of Denmark

The Capital Region of Denmark is the easternmost administrative region of Denmark with a population of 1.8 million. The vision for personalized medicine in Eastern Denmark is to improve the quality of citizens' treatment through the implementation of personalized medicine in patient care in Eastern Denmark and to establish the best framework for the further research and development of personalized medicine.Education: STEM-competencies, vocational training and international talent. The Capital Region wants to increase STEM-competencies among its citizen. It is necessary to advance these qualifications in order to meet the demands of technological change and digitalization.

With this in mind the Capital Region, the Zealand Region, the University of Copenhagen SUND and the Technical University of Denmark have joined forces to establish an infrastructure consisting of three common centres: Data Center East, Biobank Center East and Genome Center East.

Innovation Performance group (2021)	Innovation leader +
Population Density (per km² (2019)	756
Total population (2019)	1835562
Proportion older 65y % (2019)	16,96%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	personalized medicine, health data, genetic analysis, artificial intelligence, new technologies. Advancing public health for citizens to promote healthy, active and high-quality living as an easy choice is a top priority for the Capital Region. As part of its smart specialisation strategy, the Capital Region wants to accelerate research and innovation in the health sector, creating digital solutions for e.g. personalized at-home health assessments. Other key areas of interest in this sector are personalized medicine, health data, genetic analysis, artificial intelligence, new technologies and other key areas. In order to fully commit to these ambitions, all relevant stakeholders need to be included and new partnerships instigated.
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DK01

PM-related Best Practices

Interregional Collaborations

EUCAN-Connect	https://eucanconnect.com/
EU-STANDS4PM	https://www.eu-stands4pm.eu/
GCHSP - Greater Copenhagen Health Science Partners	https://gchsp.dk/en/
GenoMed4All	https://genomed4all.eu/
Health Axis Europe; Fostering Health Innovation Across Europe HAE	https://www.health-axis.eu/
INNAXE - Inclusive & aligned INNovation Agendas across Europe	https://cordis.europa.eu/project/id/101070847
iPSYCH	https://ipsych.dk/om-ipsych/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
ReCoDID - Reconciliation of Cohort data in Infectious Diseases	https://recodid.eu/
S3P4PM - Smart Specialisation Platform for Personalised Medicine	https://s3platform.jrc.ec.europa.eu/personalised-medicine
Screen4Care - Accelerating Diagnosis for Rare Disease Patients Through Genetic Newborn Screening and Artificial Intelligence	https://www.screen4care.eu/

Project

Copenhagen Health Innovation	CHI	https://copenhagenhealthinnovation.dk/en/

Biobanks, Cohorts and genomic initiatives

Nordic Database for Rare Diseases	https://www.orpha.net/consor/cgi-

Digital Innovation Hubs

MADE - Manufacturing Academy of Denmark	http://MADE.dk/

Policy

Personalized Medicine in Eastern Denmark (DK01 Capital Region of Denmark & DK02 Region Zealand)	https://www.regionh.dk/personligmedicinioest/Sider/forside.aspx

FundingProgramme

PM-related Stakeholders

Center for Advanced Bioimaging Denmark	CAB	Infrastructure	https://cab.ku.dk/	
Copenhagen Bioscience Cluster		Cluster	https://cph-bioscience.com/en/	
Copenhagen Healthtech Cluster	CHC	Cluster	https://www.cphhealthtech.com/	
Health Tech Hub Copenhagen	HTHC		https://www.healthtechhub.org/	
Medicon Valley		Cluster	https://mediconvalley.greatercph.com/	Danish-Swedish life science cluster
Novo Nordisk Foundation Center for Protein Research – University of Copenhagen	CPR	Research	https://www.cpr.ku.dk/	
PERSIMUNE Centre of excellence for personalised medicine of infectious complications in immune deficiency		Research	https://www.persimune.dk/	
Region Hovedstaden		Policy	https://www.regionh.dk/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

DK02   Sjælland / Region Zealand

Innovation Performance group (2021)	Moderate innovator +
Population Density (per km² (2019)	118
Total population (2019)	836738
Proportion older 65y % (2019)	22,51%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Personalised healthcare. Region Zealand is already engaged in partnerships concerning personalized medicine, focusing on genomics, data-driven health care, patient-reported outcome, etc. This is a scientific field which regional stakeholders wish to pursue even further. The region and its stakeholders are also looking to strengthen the regional expertise within "point of care", focusing on data driven innovation and bottom-up approaches. Region Zealand is therefore interested in partnerships on both subjects.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DK02

PM-related Best Practices
Interregional Collaborations

GCHSP - Greater Copenhagen Health Science Partners	https://gchsp.dk/en/
ITHACA - InnovaTion in Health And Care for All	https://www.interregeurope.eu/ithaca/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

Personalized Medicine in Eastern Denmark (DK01 Capital Region of Denmark & DK02 Region Zealand)	https://www.regionh.dk/personligmedicinioest/Sider/forside.aspx

FundingProgramme

PM-related Stakeholders

Zealand Region Sjælland		Policy	https://www.regionsjaelland.dk/Sider/default.aspx	

Memberships/Representations In EU/international projects or initiatives in the area of PM

16/05/2023

DK03   Syddanmark / Region of Southern Denmark

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	102
Total population (2019)	1223348
Proportion older 65y % (2019)	21,18%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Health and welfare innovation

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DK03

PM-related Best Practices

Interregional Collaborations

BOOST - Boosting Smart Regional Innovation | Ecosystems Interregional collaboration to form an EU-wide innovation ecosystem	https://cordis.europa.eu/project/id/101070737
Dish project	https://www.dishproject.eu/
EUVECA - European Platform for Vocational Excellence in Health Care	https://ehma.org/euveca-european-platform-for-vocational-excellence-in-health-care/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
Screen4Care - Accelerating Diagnosis for Rare Disease Patients Through Genetic Newborn Screening and Artificial Intelligence	https://www.screen4care.eu/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Danish Technological Institute, Robot Technology	https://www.dti.dk/robot

Policy

FundingProgramme

PM-related Stakeholders

Health Innovation Centre of Southern Denmark		Cluster	https://www.innosouth.dk/	
Region of Southern Denmark / Syddanmark		Policy	https://regionsyddanmark.dk/	
University of Southern Denmark - Syddansk University	SDU	Research	https://www.sdu.dk/en	
Welfare Tech		Cluster	https://www.welfaretech.dk/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

DK04 Midtjylland / Central Denmark Region

Midtjylland, also known as Central Denmark Region is an administrative region of Denmark with a population of 1.2 million. The region has a thriving business community with specific strengths within sustainable energy production, processing of foodstuffs, information technology and advanced manufacturing industry. In the health field the region will connect the need for health innovation with research, and make it easier for enterprises to cooperate with the health service on the development of new solutions and services which can both reach the global market and streamline the Danish health care system.

Innovation Performance group (2021)	Innovation leader -
Population Density (per km² (2019)	104
Total population (2019)	1320678
Proportion older 65y % (2019)	19,01%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   In the health field we will connect the needs. bio economy for health innovation with research, and make it easier for enterprises to cooperate with the health service on the development of new solutions and services which can both reach the global market and streamline the Danish health care system.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DK04

PM-related Best Practices
Interregional Collaborations

CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
iNEXT-Discovery Project - Infrastructure for transnational access and discovery in structural biology	https://cordis.europa.eu/project/id/871037
iPSYCH	https://ipsych.dk/om-ipsych/
Smartwork - Smart Age-friendly Living and Working Environment	https://www.smartworkproject.eu/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/

Project

Tværspor		https://www.tvaerspor.dk/

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Aarhus University Centre for Digitalisation, Big Data and Data Analytics (DIGIT)	http://www.digit.au.dk
DigitalLead	https://digitallead.dk/
The Alexandra Institute - ICT-based innovation	https://www.alexandra.dk
Vitus Bering Innovation Park	https://vitusbering.dk/

Policy

Central Jutland Region's development strategy 2019-2030	https://www.rm.dk/regional-udvikling/strategi-2019-2030/

FundingProgramme

PM-related Stakeholders

Central Denmark Region Midtjylland		Policy	https://www.rm.dk/om-os/english	
MedTech Innovation Consortium	MTIC	Cluster	http://www.mtic.dk/	
Welfare Technology & Assistive Technology Aarhus		Research	https://velfaerdsteknologi.aarhus.dk/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

DK05   **Nordjylland / North Jutland Region**

The Region of Central Denmark had a population of 1.3 million. The Central Region in Denmark defines itself as a globally competitive region and among the best in Europe. The regions' S3 priorities include a focus on: Tourism and experience economies; Construction industry; Energy: Food; Health and life science; Intelligent transport; Maritime sector.

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	76
Total population (2019)	589755
Proportion older 65y % (2019)	21,40%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	ICT and Digitalisation
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/DK05

PM-related Best Practices

Interregional Collaborations

BIC - Biomarker Commercialization	https://bicguide.biomarker.nu/

Project

Relaps		https://aalborguh.rn.dk/forskning/forskningsomraader/specialer/haematologi/relapsprojektet

SAPHIRe Regional Report

not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

BrainsBusiness ICT North Denmark	http://www.brainsbusiness.dk/

Policy

Handlingsplan for personlig medicin	https://www.regioner.dk/media/1280/handlingsplan-for-personlig-medicin.pdf

FundingProgramme

PM-related Stakeholders

Aalborg university	AAU	Research	https://www.en.aau.dk/	
Aalborg university hospital		Hospital	https://aalborguh.rn.dk/service/english	
Idea Clinic			https://ideklinikken.rn.dk/	Nordic region's leading competence center within health innovation
Life Science Innovation North Denmark	LSI	Cluster	https://www.lifescienceinnovation.dk/	
North Jutland Region Nordjylland		Policy	https://rn.dk/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Committee of the Regions: CoR Interregional Group on Health @ Wellbeing; European Regions Research and Innovation Network (ERRIN); Council of European Bioregions (CEBR)

EE	**Eesti / Estonia (National level)**

Estonia is a country on the eastern coast of the Baltic Sea in Northern Europe, it has a population of 1.3 million. The countries S3 priorities include e-health; biotechnology; ICT: industry, robotics and embedded systems; ICT: e-governance and data science; materials technologies and enhancement of resources. The country has a national strategy for health research and innovation, and a strategy for e-health. Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_et_english.pdf

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	30
Total population (2019)	1324820
Proportion older 65y % (2019)	19,76%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	
url RIS3 2021-2027	
RIS3 priorities 2014-20	Biotechnology : medicine: diagnostics, therapeutic; biobanking. Data Science. incl. big data and data mining. Ehealth
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/EE

PM-related Best Practices
Interregional Collaborations

B1MG - Beyond 1 Million Genomes Pan-European initiative to create genome-based health data infrastructure	https://b1mg-project.eu/
BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
BIC - Biomarker Commercialization	https://bicguide.biomarker.nu/
BioEndoCar - Biomarkers for diagnosis and prognosis of Endometrial Carcinoma	https://www.era-learn.eu/network-information/networks/transcan-2/third-joint-transnational-call-jtc-2016/biomarkers-for-diagnosis-and-prognosis-of-endometrial-
BOOST - Boosting Smart Regional Innovation	Ecosystems Interregional collaboration to form an EU-wide innovation ecosystem	https://cordis.europa.eu/project/id/101070737
CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
EDAH - Interconnecting innovation ecosystems for common European data space in Health	The future of health and care data in Europe	https://cordis.europa.eu/project/id/101070811
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
ERA CoBioTech	https://www.cobiotech.eu/home

ERA-NET NEURON Cofund2 togther for brain research	https://www.neuron-eranet.eu/
ERA-NET TRANSCAN-2 Aligning national/regional translational cancer research programmes and activities	https://www.era-learn.eu/network-information/networks/transcan-2
ERA-NET TRANSCAN-3	https://www.era-learn.eu/network-information/networks/transcan-3
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/
EuroNanoMed III (2016-2021) the new ERA-Net Cofund Action on Nanomedicine	https://euronanomed.net/
Gen.era	https://www.generaproject.com/
INTERVENE - AI and human genetics to develop tools for disease prevention, diagnosis, and personalised treatment	https://www.interveneproject.eu/
PROPHET - a PeRsOnalized Prevention roadmap for the future HEalThcare	https://cordis.europa.eu/project/id/101057721
Regions4PerMed	https://www.regions4permed.eu/
ScanBalt BioRegion	https://scanbalt.org/
STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/
UNCAN - a European Initiative to UNderstand CANcer – Drafting a Blueprint for European Cancer Research	https://uncan.eu/

Project

Clinical validation of genomic risk scores for prediction of cardiovascular diseases and breast cancer		https://sisu.ut.ee/pmkliinilisedjuhtprojektid/avaleht
EHR		https://e-estonia.com/solutions/healthcare/e-health-records/
My e-Health		https://www.digilugu.ee/login?locale=en
Pharmacogenetic Recommendations for Personalised Medicine		https://www.nature.com/articles/s41436-018-0337-5
Realisation of information from genomic data to healthcare services. ERF funding for project "Realisation of personalised medicine in Estonia"		

Biobanks, Cohorts and genomic initiatives

Estonian Genome Centre / Estonian Biobank	http://www.biobank.ee/
Estonian Rare Diseases Registry for Wolfram syndrome, Alström syndrome, Bardet-Biedl syndrome and other rare diabetes syndromes - contribuiting to EURO-WABB	https://www.orpha.net/consor/cgi-bin/ResearchTrials_RegistriesMaterials.php?lng=EN&data_id=108346&RegistryMaterialName=Wolframi-sundroomi--Alstromi-sundroom--Bardet-Biedli-sundroomi--WABB--ja-teiste-harvaesinevate-suhkrut-ve-sundroomide-Eu-
Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-

Digital Innovation Hubs

DIH Tartu	https://www.cs.ut.ee/en/DIHTartu
Eliko	https://www.eliko.ee/
Smart Industry Centre (SmartIC)	http://www.smartic.ee
Software Technology and Applications Competence Centre (STACC)	https://www.stacc.ee/

Tallinn Science Park Tehnopol	https://www.tehnopol.ee/

Policy

e-health strategy for 2020	https://www.sm.ee/et/eesti-e-tervise-strateegia
Estonian framework of the personalised medicine programme 2016–2020	https://www.sm.ee/en/personalised-medicine
Estonian Human Genes Research Act (IGUS - HGRA)	https://www.riigiteataja.ee/en/eli/531102013003/consolide
Estonian Personal Data Protection Act	https://www.riigiteataja.ee/en/eli/ee/Riigikogu/act/507032016001/consolide?leiaKehtiv
Research and innovation for health. Research, Development and Innovation Strategy for the Estonian Health System 2015–2020	https://www.sm.ee/sites/default/files/content-editors/eesmargid_ja_tegevused/Tervis/strategy_research_and_innovation_for_health.pdf

FundingProgramme

100 000 new gene donors	https://geenidoonor.ee/
Application of personalised medicine in Estonia	https://tai.ee/et/tegevused/personaalmeditsiin
Clinical Decision Support Tool for primary care	https://www.haigekassa.ee/en/node/1082
Clinical project of personalised medicine in the precise prevention of breast canc	https://sisu.ut.ee/pmkliinilisedjuhtprojektid/avaleht
EJP Rare Disease European Joint Programme Cofund	http://www.ejprarediseases.org
Maintenance of Estonian Genome Center	https://www.sm.ee/sites/default/files/content-editors/sisekomm/lisa_1.pdf

PM-related Stakeholders

Active Life Cluster SportEST		Cluster	https://www.sportest.eu/en/home/	
Bioinformatics, Algorithmics and Data Mining Group	BIIT	Research	https://biit.cs.ut.ee/	
ELIXIR Estonia		Infrastructure	https://elixir.ut.ee/	
Estonian Connected Health Cluster		Cluster	https://connectedhealth.ee/	
Estonian Research Council	ETAg	Funding	https://www.etag.ee/en/estonian-research-council/	
Institute for Health Development / Tervise Arengu Instituut	TAI	Research	https://www.tai.ee/et	
Institute of Genomics, University of Tartu	UT	Research	https://genomics.ut.ee/en	
Medicine Estonia		Cluster	https://www.medicineestonia.eu/en/	
Ministry of Social Affairs / Sotsiaalministeerium	MSA	Policy	https://www.sm.ee/en	
State Agency of Medicines	SAM		https://www.ravimiamet.ee/en	
Tartu Health Cluster		Cluster	https://biopark.ee/tartu-biotechnology-cluster?lang=en	
University of Tartu Ülikool	UT	Research	https://www.ut.ee/et	

Memberships/Representations In EU/international projects or initiatives in the area of PM

16/05/2023

ICPerMed

ICPerMed

EL   Ελλάδα (Ellada) / Greece (National level)

Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_gr_english.pdf

Innovation Performance group (2021)	Moderate innovator
Population Density (per km² (2019)	82
Total population (2019)	10724599
Proportion older 65y % (2019)	22,04%
Mountain, remote, island?	Mix of mountain & non-mountain & islands

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20 | Health and pharmaceuticals. Biomaterials, tissue engineering, functional foods and nutraceuticals, diagnostic techniques, drug-delivery mechanisms, customized medication, biosensors, bioinformatics and nanomedical applications, telemedicine. Informatics and telecommunication services. Focus on outward-looking competitiveness, on exploring links with horizontal, enabling technologies, and transversal applications throughout the Greek economy (e.g. health). Key emerging technologies and aspects will be pursued (big data, gamification, future internet structures, 5G technologies, data mgmt. and computational models, learning technologies, human-machine interaction, 'smart' transversal applications).

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/EL

PM-related Best Practices
Interregional Collaborations

BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
DIGI-B-CUBE	https://digibcube.eu/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
ERA-NET NEURON Cofund2 togther for brain research	https://www.neuron-eranet.eu/
ERA-NET TRANSCAN-2 Aligning national/regional translational cancer research programmes and activities	https://www.era-learn.eu/network-information/networks/transcan-2
ERA-NET TRANSCAN-3	https://www.era-learn.eu/network-information/networks/transcan-3
EuroNanoMed III (2016-2021) the new ERA-Net Cofund Action on Nanomedicine	https://euronanomed.net/
MEDIC-NEST project - Precision MEDIcine Clusters integrating Digital Technologies for New EcoSystems in HealThcare	https://echalliance.com/medic-nest-kick-off-cosme-project-on-precision-medicine-clusters-integrating-digital-technologies-for-new-ecosystems-in-healthcare/

MIRRI - Microbial Resource Research Infrastructure	https://www.mirri.org/
TIMELY - Artificial intelligence-powered apps for a healthy heart	https://cordis.europa.eu/project/id/101017424

Project

Biobanks, Cohorts and genomic initiatives

Hellenic BBMRI Network	https://biobank.bioacademy.gr/
Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Bionian Cluster, the First Health Sciences Cluster		Cluster	https://www.bionian.com/index.php/en/	
ELIXIR Greece		Infrastructure	https://www.elixir-greece.org/	
Hellenic Foundation for Research and Innovation	HFRI	Funding	https://www.elidek.gr/en/homepage/	
Hellenic BioCluster	Hbio	Cluster	http://hbio.gr/	
Hellenic Digital Health Cluster	HDHC	Cluster	http://www.hdhc.gr/en	

Hellenic Network of Precision Medicine on Cancer		Cluster	https://oncopmnet.gr/?page_id=2921&lang=en	
National Infrastructures for Research and Technology	GRNET	Infrastructure	https://grnet.gr/en/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR)

EL30   Αττική (Attiki) / Attica Region

Αττική, or the Attica Region is an administrative region of Greece, that encompasses the entire metropolitan area of Athens, the country's capital and largest city, it has a population of 3.75 million. The region aims to strengthen its capacities and develop infrastructure among local authorities, educational and research centres private SMEs and to become a leading metropolitan centre for innovation research, production and export in the wider region of Eastern Mediterranean. In order to do so, the region will utilise its competent scientific and technical human capital. In this context, the RIS3 priorities are: Sustainable economy of needs – this includes: Medicine - Health; Smart city, smart building, smart transport; Environmental technology; Energy: RES, energy saving, smart grids Agri-food; Materials - Construction.

Innovation Performance group (2021)	Moderate innovator
Population Density (per km² (2019)	988
Total population (2019)	3742235
Proportion older 65y % (2019)	20,74%
Mountain, remote, island?	Athens is surrounded by mountains

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Every day aspects of quality-of-life & sustainability (smart cities, agri-food, health)
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/EL30

PM-related Best Practices

Interregional Collaborations

B1MG - Beyond 1 Million Genomes Pan-European initiative to create genome-based health data infrastructure	https://b1mg-project.eu/
CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
EOSC4Cancer - European Open Science Cloud for Cancer	https://eosc4cancer.eu/
ExACT- European network staff eXchange for integrAting precision health in the health Care sysTems	http://www.exactproject.net/site/
GenoMed4All	https://genomed4all.eu/
iNEXT-Discovery Project - Infrastructure for transnational access and discovery in structural biology	https://cordis.europa.eu/project/id/871037
KATY - AI-Empowered Personalised Medicine System to Improve Cancer Treatments	https://katy-project.eu/

Personalised Body Sensor Networks with Built-In Intelligence for Real-Time Risk Assessment and Coaching of Ageing workers, in all types of working and living environments	https://cordis.europa.eu/project/id/826304
Smartwork - Smart Age-friendly Living and Working Environment	https://www.smartworkproject.eu/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

ATHENA Research and Innovation Center	http://www.athena-innovation.gr
Attica Hub for the Economy of Data and Devices- ahedd	http://ahedd.demokritos.gr/
Foundation for Research and Technology – Hellas (FORTH) / PRAXI Network	https://www.praxinetwork.gr
Internet of Things, Intelligent Systems, Data Engineering and Media DIH [National Technical University of Athens - Institute of Communication and Computer Systems]	https://www.dih-ntua.gr/services/
National Documentation Centre / National Hellenic Research Foundation	http://www.ekt.gr/en

Policy

FundingProgramme

PM-related Stakeholders

Biomedical Research Foundation Academy Of Athens	BRFAA	Research	http://www.bioacademy.gr/	
Foundation for Research and Technology - Hellas	ITE / FORTH	Research	https://www.forth.gr/	Institute of Computer Science (ICS) and the Computational BioMedicine Laboratory (CBML), with a focus on personalized, predictive and preventive medicine, computational biomedical informatics, hybrid imaging techniques and citizen-centered
Greek Research Infrastructure for Precision Medicine	pMedGR	Research	https://www.precisionmedicine.gr/	
Medical School of National & Kapodistrian University of Athens	NKUA	Research	https://school.med.uoa.gr/	
National & Kapodistrian University Of Athens		Research	https://en.uoa.gr/research/university_hospitals_and_clinical_departments/	
National Technical University of Athens		Research	https://www.ntua.gr/en/	
University of Piraeus Research centre	UniPi	Research	https://teeslab.unipi.gr/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

EL43   Κρήτη (Kriti) / Crete

Innovation Performance group (2021)	Moderate innovator
Population Density (per km² (2019)	76
Total population (2019)	634930
Proportion older 65y % (2019)	19,41%
Mountain, remote, island?	Islands, > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 Health and Wellness (Artificial Intelligence ; Telemedicine applications - self-care; Screening; Data Analytics; Bioinformatics; Precision Medicine; Wearables Telemetries; Biosensors; Technological solutions to support the exercise of the disabled; Modern Diet; Pharmaceutical; Virtual education applications)

url RIS3 2021-2027   http://ris3.crete.gov.gr/wp-content/uploads/2021/08/ana8ewrisi-ris3crete-2021-2027-web.pdf

RIS3 priorities 2014-20   The knowledge innovation nexus. Emphasis will be placed on promising cutting edge research (biomedical, nanotech, computing, materials), which can support the expansion of the productive tissue towards new competitive knowledge-intensive activities, the launching of start-ups springing from this high quality RTD, the attraction of relevant investment, and of researchers, from around the world, promoting brain circulation, and building human capital, focusing on the interaction of local research prowess coupled with local advantages (e.g. strong laser RTD coupled with cultural heritage exploration and exploitation). Technology and education (research centres, universities, technology park). health/quality-of-life aspects of the Cretan brand (Cretan diet).

url RIS3 2014-2020   https://s3platform-legacy.jrc.ec.europa.eu/documents/20182/244533/RIS-Crete-Translation-ENG.pdf/dc854cd4-1f0a-44c1-b459-ed38a2bbf199

PM-related Best Practices
Interregional Collaborations

GenoMed4All	https://genomed4all.eu/

Project

SAPHIRe Regional Report

16/05/2023

not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Hellenic Mediterian university Research Center	HMU	Research	https://www.hmu.gr/en	
University of Crete	UOC	Research	https://en.uoc.gr/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

EL51   Ανατολική Μακεδονία, Θράκη (Anatoliki Makedonia, Thraki)/ Eastern Macedonia and Thrace

Innovation Performance group (2021)	Emerging innovator +
Population Density (per km² (2019)	43
Total population (2019)	599723
Proportion older 65y % (2019)	23,15%
Mountain, remote, island?	> 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Emerging activities dealing with growing pains. Emphasis will be placed on difficulties commonly faced in emerging activities/areas, such as scale considerations in introducing technological and organisational innovation, difficulties in joining global value chains, in penetrating export markets. Key enabling technologies will be explored in this regard, as will scope expansion and investment attraction for important areas such as tourism, cluster formation, and incubators for start-up firms. These emerging activity areas include pharmaceuticals, electrical/electronic appliances, innovative structural materials, hybrid energy and environmental technologies. A new take on tourism and alternative, targeted services therein (ecotourism, gastrotourism, etc.) is also an important activity under this rubric.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/EL11

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Region of East Macedonia & Thrace		Policy	https://www.pamth.gov.gr/index.php/en	

Memberships/Representations In EU/international projects or initiatives in the area of PM

EL52   **Κεντρική Μακεδονία (Kentriki Makedonia) / Central Macedonia**

Innovation Performance group (2021)	Moderate innovator -
Population Density (per km² (2019)	101
Total population (2019)	1873777
Proportion older 65y % (2019)	22,29%
Mountain, remote, island?	> 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Electronics, electrical appliances and ICT.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/EL12

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

16/05/2023

Digital Innovation Hubs

Central Macedonia Digital Innovation Hub on Agrofood	http://www.thessinnozone.gr/
Centre for Research and Technoloy Hellas	https://www.certh.gr/
Nanotechnology Lab LTFN (Lab for Thin Films - Nanobiomaterials - Nanosystems - Nanometrology)	http://www.ltfn.gr/
nZEB Smart House	https://smarthome.iti.gr

Policy

FundingProgramme

PM-related Stakeholders

Memberships/Representations In EU/international projects or initiatives in the area of PM

EL54   Ήπειρος (Ipeiros) / Epirus

Innovation Performance group (2021)	Moderate innovator -
Population Density (per km² (2019)	37
Total population (2019)	333696
Proportion older 65y % (2019)	27,01%
Mountain, remote, island?	> 50 % of population live and > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Health & Well-being. Actions: Evaluation and exploitation of research projects already completed, Financing SMEs for the development of new research programs in collaboration with research bodies, Scholarships for graduate and postgraduate students to obtain qualifications and upgrade their skills, Strengthening partnerships among businesses and clusters within Greece and abroad, Upgrade health services (certification of clinics and laboratories to international standards), Financing SMEs for the development of new products. ICT linked to university research, innovation and youth entrepreneurship

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/EL21

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Development Agency of Epirus			www.epirussa.gr	
Region of Epirus			www.php.gov.gr	
Technological Educational Institute of Epirus	TEI		http://www.teiep.gr/en/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

EL61   Θεσσαλία (Thessalia) / Thessaly

Innovation Performance group (2021)	Moderate innovator -
Population Density (per km² (2019)	51
Total population (2019)	718640
Proportion older 65y % (2019)	24,60%
Mountain, remote, island?	> 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Emerging area: Rehabilitation and advanced health services

url RIS3 2014-2020

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Memberships/Representations In EU/international projects or initiatives in the area of PM

EL62   **Ιόνια Νησιά (Ionia Nisia)/ Ionian Islands**

Innovation Performance group (2021)	Emerging innovator +
Population Density (per km² (2019)	89
Total population (2019)	203869
Proportion older 65y % (2019)	23,05%
Mountain, remote, island?	Islands, > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Biomedical services. ICTs, biology and medical services nexus, neurodiagnostics, bioinformatics, pharmaceutical and diagnostic applications
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/EL22

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

SAPHIRe Regional Report

16/05/2023

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Region of Ionian Islands			www.pin.gov.gr	
Technological Educational Institute of Ionian Islands	TEI		http://www.teiion.gr/	
University Hospital of Ioannina	PGNI	Hospital	www.uhi.gr	

Memberships/Representations In EU/international projects or initiatives in the area of PM

EL63   **Δυτική Ελλάδα (Dytiki Ellada) / Western Greece**

Innovation Performance group (2021)	Moderate innovator -
Population Density (per km² (2019)	59
Total population (2019)	655189
Proportion older 65y % (2019)	22,38%
Mountain, remote, island?	> 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Life Science. Bioeconomy
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/EL23

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

SAPHIRe Regional Report

Digital Innovation Hubs

Embedded System Design & Application Laboratory	https://dih.esdalab.ece.uop.gr

Policy

FundingProgramme

PM-related Stakeholders

Memberships/Representations In EU/international projects or initiatives in the area of PM

Digital Innovation Hubs

Embedded System Design & Application Laboratory	https://dih.esdalab.ece.uop.gr

ES | España / Spain (National level)

Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_es_english.pdf

Innovation Performance group (2021)	Moderate innovator
Population Density (per km² (2019)	94
Total population (2019)	46937060
Proportion older 65y % (2019)	19,40%
Mountain, remote, island?	Mix of mountain & non-mountain & islands

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20

url RIS3 2014-2020

PM-related Best Practices

Interregional Collaborations

B1MG - Beyond 1 Million Genomes Pan-European initiative to create genome-based health data infrastructure	https://b1mg-project.eu/
BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
Biotechnology applied to Healthcare	https://ibecbarcelona.eu/el-ibec-liderara-el-mayor-consorcio-estatal-de-biotecnologia-para-salud/
DIGI-B-CUBE	https://digibcube.eu/
EATRIS - European infrastructure for translational medicinE	https://eatris.eu/
ECRIN - European Clinical Research Infrastructure Network	https://ecrin.org/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
ERA CoBioTech	https://www.cobiotech.eu/home
ERA-NET NEURON Cofund2 togther for brain research	https://www.neuron-eranet.eu/
ERA-NET TRANSCAN-2 Aligning national/regional translational cancer research programmes and activities	https://www.era-learn.eu/network-information/networks/transcan-2
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/
EULAC - PerMed	https://www.eulac-permed.eu/

EU-OPENSCREEN ERIC - European Infrastructure of Open Screening Platforms for Chemical Biology	https://www.eu-openscreen.eu/index.html
EuroNanoMed III (2016-2021) the new ERA-Net Cofund Action on Nanomedicine	https://euronanomed.net/
JAseHN - Joint Action to support the eHealth Network (2015 -2018)	https://webgate.ec.europa.eu/chafea_pdb/health/projects/677102/summary
MIRRI - Microbial Resource Research Infrastructure	https://www.mirri.org/
PANCAIM - Pancreatic cancer AI for genomics and personalized Medicine	https://pancaim.eu/
PERMIT - PERsonalised Medicine Trials	https://permit-eu.org/
STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
UNCAN - a European Initiative to UNderstand CANcer – Drafting a Blueprint for European Cancer Research	https://uncan.eu/

Project

Precision Medicine infrastructure associated with Science and Technology - Infraestructura de Medicina de Precisión asociada a la Ciencia y Tecnología	IMPaCT	https://www.cnag.crg.eu/projects/impact

Biobanks, Cohorts and genomic initiatives

Biobank Foundation National Cancer Research Center (CNIO)	https://www.cnio.es/en/research-innovation/services/biobank/
Biobank of the Institute of Rare Diseases Research/Institute of Health Carlos III (IIER-ISCIII)	http://bioner.isciii.es/home/
DNA National Bank - Banco Nacional de ADN	https://www.bancoadn.org/en
Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-
National Network of Biobanks	https://redbiobancos.es/
Pulmonary Biobank Platform	https://biobancopulmonar.ciberes.org/en

Digital Innovation Hubs

Policy

"Personalized Precision Medicine, focus of interest in all the autonomous communities"	https://www.institutoroche.es/notasdeprensa/168/la_medicina_personalizada_de_precision_foco_de_interes_en_todas_las_comunidades_autonomas/?any=2019
A status report about personalized medicine in Spain	https://www.institutoroche.es/static/pdfs/MPP_EN_ESPANA_MAPA_DE_CCAA.pdf
Ponencia de estudio sobre genómica, constituida en el seno de la Comisión de Sanidad, Consumo y Bienestar Social / Study group on genomics (Spanish senate)	https://www.senado.es/legis12/publicaciones/pdf/senado/bocg/BOCG_D_12_341_2574.PDF

Propouesta Estrategia Nacional Medicina Precision (Roche Institute)	https://www.institutoroche.es/estrategia_estatal_medicina_personalizada_de_precision
Propuesta de Recomendaciones para una Estrategia Estatal de Medicina Personalizada de Precisión / Proposed Recommendations for a State Strategy for Personalised Precision Medicine	https://aegh.org/wp-content/uploads/2017/04/Propuesta-de-Recomendaciones-MPP-_-Def.pdf
Spanish Strategy for Science, Technology & Innovation 2021-2027	http://www.ris3extremadura.es/wp-content/uploads/2020/09/EECTI-2021-2027-1.pdf

FundingProgramme

Accion Estrategica en Salud	http://www.isciii.es/
Independent Clinical Research Projects in Advanced Therapies (PIC 2018)	https://www.isciii.es/QueHacemos/Financiacion/Paginas/Accion-Estrategica-en-Salud.aspx

PM-related Stakeholders

Center for Networked Biomedical Research on Neurodegenerative Diseases / Centro de Investigación Biomédica en Red sobre Enfermedades Neurodegenerativas	CIBERNED	Research	https://ciberned.es/	
Centre for the Development of Industrial Technology / Centro para el Desarrollo Tecnológico Industrial	CDTI	Funding	https://www.cdti.es/index.asp	national execution & funding innovation
Consorcio Centro de Investigación Biomédica en Red of the Carlos III Health Institute	CIBER ISCIII	Research	https://www.ciberisciii.es/	
Superior Council of Scientific Investigations (Spanish National Research Council) / Consejo Superior de Investigaciones Científicas	CSIS	Research	https://www.csic.es/	national execution & funding science
ELIXIR Spain		Infrastructure	https://elixir-europe.org/about-us/who-we-are/nodes/spain	
Health Institute Carlos III / Instituto de Salud Carlos III	ISCIII	Research	https://eng.isciii.es/eng.isciii.es/Paginas/Inicio.html	national execution & funding health
Ministry of Education and Professional Training / Ministerio de Educación y Formación Profesional		Policy	https://www.educacionyfp.gob.es/portada.html	national policy education
Ministry of Health, Consumer Affairs and Social Welfare / Ministerio de Sanidad, Consumo y Bienestar Social		Policy - Healthcare	https://www.mscbs.gob.es/en/home.htm	national policy health
Ministry of Science and Innovation / Ministerio de Ciencia e Innovación		Policy - Research & Innovation	https://www.ciencia.gob.es/portal/site/MICINN/?lang_choosen=en	national policy R&D/Innovation/Science

National Center for Cancer Research / Centro Nacional de Investigaciones Oncológicas	CNIO	Research	https://www.cnio.es/	7 scientific programs (Molecular Oncology, Cancer Cell Biology, Structural Biology, Human Cancer Genetics, Clinical Research, Experimental Therapeutics and Biotechnology) in the areas of Basic and Translational Cancer Research
Spanish Agency of Medicines and Medical Devices	AEMPS		https://www.aemps.gob.es/?lang=en	
Spanish Association of Human Genetics / Asociación Española de Genética Humana	AEGH		https://aegh.org/	
Spanish Bioindustry Association / Asociación Española de Bioempresas	AseBio	Cluster	https://asebio.com/en	
Spanish Foundation for Science and Technology / Fundación Española para la Ciencia y Tecnología	FECYT	Funding	https://www.fecyt.es/en	national funding science

Memberships/Representations In EU/international projects or initiatives in the area of PM

ES11   Galiza / Galicia

Innovation Performance group (2021)	Moderate innovator -
Population Density (per km² (2019)	92
Total population (2019)	2700441
Proportion older 65y % (2019)	25,16%
Mountain, remote, island?	> 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 preventive, regenerative & precision medicine

url RIS3 2021-2027   https://ris3galicia.es/wp-content/uploads/Presentacion-Patricia-Argerey-II-Foro-RIS3.pdf

RIS3 priorities 2014-20   Healthy ageing. New technologies in active ageing and a healthy lifestyle, as well as in boosting self-autonomy

url RIS3 2014-2020   https://ris3galicia.es/wp-content/uploads/ESTRATEXIA-_REXIONAL_RIS3_GALICIA.pdf

PM-related Best Practices
Interregional Collaborations

Biotechnology applied to Healthcare	https://ibecbarcelona.eu/el-ibec-liderara-el-mayor-consorcio-estatal-de-biotecnologia-para-salud/
CONNECTINGHEALTH - CONNECTing the dots withIN diGItal HEALTH Innovation Ecosystems	https://cordis.europa.eu/project/id/101070756
Innovative solutions on Active - Healthy Ageing in the framework of personalized medicine	https://www.interregeurope.eu/project-ideas/innovative-solutions-on-active-healthy-ageing-in-the-framework-of-personalized-medicine
Regions4PerMed	https://www.regions4permed.eu/
TIMELY - Artificial intelligence-powered apps for a healthy heart	https://cordis.europa.eu/project/id/101017424
TITTAN - (Network for Technology,Innovation and Translation in Ageing	https://www.interregeurope.eu/tittan/

Project

Code 100 - Therapies		https://codigo100.sergas.gal/Contidos/Terapias
Innova MicroLab project - Challenge 2: The study of the evolution of the microbiome in patients with metabolic diseases		https://innovamicrolab.sergas.es/cartafol/En-que-consiste-o-proxecto-Innova-MicroLab

SAPHIRe Regional Report

Biobanks, Cohorts and genomic initiatives

Biobank A Coruña	http://www.inibic.es/
Biobank of the Instituto de Investigación Sanitaria Galicia Sur (IISGS)	http://www.iisgaliciasur.es/home/biobanco/
Biobank of the University Hospital Complex of Santiago de Compostela	https://www.idisantiago.es/en/technology-platforms/biobank/
RERGA: Registry for rare diseases in Galicia (Spain)	https://www.orpha.net/consor/cgi-

Digital Innovation Hubs

AI4GALICIA: Artificial Intelligence for Galicia	http://ai4galicia.eu
DATAlife	http://dihdatalife.com/
GALician manufACTuring Innovation ConsortiA (GALACTICA)	http://www.galacticaDIH.eu/

Policy

Galician Biotechnology Strategy 2021-2025	http://gain.xunta.gal/repo/3-ResumenEjecutivoEGCB.pdf
Galician Oncology strategy	
Galician strategy for personalised medicine	https://www.youtube.com/watch?v=SBqfpjfQdMM

FundingProgramme

PM-related Stakeholders

Advanced Scientific Research Center at University of Coruña (UDC)	CICA	Research	https://cica.udc.gal/en	
Biomedical Research Institute of A Coruña	INIBIC	Research	https://www.udc.es/en/investigacion/institutos_investigacion/instituto/?codigo=I907	
Business Technology Cluster of Life Sciences	Bioga	Cluster	https://www.bioga.org/	
Galician Agency for Health Technology Assessment / Unidade de Asesoramento Científico-técnico	AVALIA-T	Policy - Research & Innovation	https://avalia-t.sergas.gal/Paxinas/web.aspx	
Galician Health Cluster / Cluster Saúde de Galicia	CSG	Cluster	https://clustersaude.com/en/	
Galician Health Knowledge Agency / Axencia de Coñecemento en Saúde	ACIS	Policy - Research & Innovation	https://acis.sergas.es/	
Galician Immunotherapy Manufacturing Center		Research		
Galician Innovation Agency / Axencia Galega de Innovación	GAIN	Innovation Agency	http://gain.xunta.gal/	

Galician Public Foundation of Genomic Medicine / Fundación Pública Galega de Medicina Xenómica	FPMX		https://xenomica.sergas.gal/	regional execution research health
Ministry of Health - Galician Health Service / Servizo Galego de Saúde	SERGAS	Policy - Healthcare	https://www.sergas.es/	
Regional Government of Galicia / Xunta de Galicia		Policy	https://www.xunta.gal/portada	
South Galicia Health Research Institute / Instituto de Investigación Sanitaria Galicia Sur	IISGS	Research	http://www.iisgaliciasur.es/	
University of A Coruña		Research	https://www.udc.es/	
University of Santiago de Compostela		Research	https://www.usc.gal/en	
University of Vigo		Research	https://www.uvigo.gal/en	
Xenomic Medicine Group / Grupo de Medicina Xenómica	GMX	Research	https://www.xenomica.eu/?lang=en	regional execution research

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

ES12   Principáu d'Asturies / Principado de Asturias / Principality of Asturias

Innovation Performance group (2021)	Moderate innovator -
Population Density (per km² (2019)	97
Total population (2019)	1022205
Proportion older 65y % (2019)	25,66%
Mountain, remote, island?	> 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	Personalised Nutrition (senior microbiome) / personalisation in the treatment of cancer and genetically based pathologies
url RIS3 2021-2027	https://www.asturias.es/documents/217090/556240/20211213-AMBITOS+DE+ESPECIALIZACION-FINAL+2.pdf/db8282fc-5b25-ec43-be7e-056ee702ce11?t=1639395814304
RIS3 priorities 2014-20	Health Research and Medical Care. Health research and management; biomedicine and ageing population medical care; demographic change effects and well-being. Advance manufacturing and materials. Digital manufacturing and additive manufacturing; nanomaterials. big data. sensors
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ES12

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Biobank of the Principality of Asturias	https://www.astursalud.es/noticias/-/noticias/biobanco-del-principado-de-
Registro MEN: Spanish registry of multiple endocrine neoplasia, pheochromocitomas and paragangliomas	https://www.orpha.net/consor/cgi-bin/ResearchTrials_RegistriesMaterials.php?lng=EN&data_id=78701&Registry
RenalTube: Database of patients with primary tubulopathies	https://www.orpha.net/consor/cgi-

Digital Innovation Hubs

Asturias Digital Innovation Hub	https://www.asturiasindustria40.es/en/

Policy

FundingProgramme

PM-related Stakeholders

Asturias Biosanitary Research Foundation / Fundación para la Investigación Biosanitaria de As	FINBA	Policy - Research & Innovation	https://www.astursalud.es/noticias/-/noticias/finba-fundacion-para-la-investigacion-e-innovacion-biosantiaria-de-asturias	
Cluster TIC Asturias		Cluster	https://www.clustertic.net/	
General Assembly of the Principality of Asturias / Junta General del Principado de Asturias		Policy	https://www.jgpa.es/	
Innovative Knowledge Business Association of Asturias / AEI Conocimiento Asturias		Cluster	http://aeiconocimiento.org/web/guest	
Instituto de Medicina Oncológica y Molecular de Asturias	IMOMA	Research		
Nanomaterials and Nanotechnology Research Center	CINN	Research	https://cinn.es/en/health/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

ES13   Cantabria

Innovation Performance group (2021)	Moderate innovator -
Population Density (per km² (2019)	110
Total population (2019)	581641
Proportion older 65y % (2019)	21,90%
Mountain, remote, island?	> 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Health and biotechnology : Business innovation based on biotech research and links with the health sector. Advanced manufacturing for better production processes. Design and production of components, pieces and metallic structures of any shape and size for the manufacture of final products in a variety of sectors (nuclear, food and drinks, chirurgical material and hospital equipment, etc.)

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ES13

PM-related Best Practices

Interregional Collaborations

INCENTIVE - Innovation and technology to improve customer-oriented healthcare services	https://www.interregeurope.eu/intencive/
TIMELY - Artificial intelligence-powered apps for a healthy heart	https://cordis.europa.eu/project/id/101017424

Project

Biobanks, Cohorts and genomic initiatives

Population registry of rare diseases and congenital anomalies of Cantabria	https://www.orpha.net/consor/cgi-
Valdecilla Biobank	https://www.idival.org/en/Soporte/Biobanco-valdecilla

Digital Innovation Hubs

IoT-SmartSantander DIH	http://dih.smartsantander.eu/

Policy

FundingProgramme

PM-related Stakeholders

Regional Government of Cantabria / Gobierno de Cantabria		Policy	https://www.cantabria.es/	
Valdecilla Health Research Institute	IDIVAL		https://www.idival.org/en	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

ES21   Euskadi / País Vasco / Basque Country

Innovation Performance group (2021)	Strong innovator -
Population Density (per km² (2019)	304
Total population (2019)	2177880
Proportion older 65y % (2019)	22,60%
Mountain, remote, island?	> 50 % of population live and > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 Personalised Health Bio-sciences and health high-level scientific-technology capacities (convergence of facilitator technologies, micro-nano-bio-tic)

url RIS3 2021-2027   https://www.science.eus/en/rd-euskadi

RIS3 priorities 2014-20   Health research focused on rare diseases, personalised medicine, equipment and applied ICT. mprovement of human capital skills and capabilities by promotion of STEM

url RIS3 2014-2020   http://www.spri.eus/euskadinnova/documentos/2697.aspx

PM-related Best Practices
Interregional Collaborations

BigDATia - cross-border hub of excellence in Artificial Intelligence and Big Data incl health	http://www.competitiveko.eu/en/bigdatia-2/
Biotechnology applied to Healthcare	https://ibecbarcelona.eu/el-ibec-liderara-el-mayor-consorcio-estatal-de-biotecnologia-para-salud/
EUCANCan: a federated network of aligned and interoperable infrastructures for the homogeneous analysis, management and sharing of genomic oncology data for Personalized Medicine	https://cordis.europa.eu/project/id/825835
ExACT- European network staff eXchange for integrAting precision health in the health Care sysTems	http://www.exactproject.net/site/
INNOVMEDICA - cross-border center of excellence for medical devices and e-health	http://www.competitiveko.eu/innovmedica-alliance/
ITHACA - InnovaTion in Health And Care for All	https://www.interregeurope.eu/ithaca/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
TITTAN - (Network for Technology,Innovation and Translation in Ageing	https://www.interregeurope.eu/tittan/

SAPHIRe Regional Report

not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Project

Biobanks, Cohorts and genomic initiatives

Biobanco Vasco	https://www.biobancovasco.org/en/
RACAV: Registry of congenital anomalies of the Basque Country - contributes to the EUROCAT network	https://www.orpha.net/consor/cgi-bin/ResearchTrials_RegistriesMaterials.php?lng=EN&data_id=31178&Registry

Digital Innovation Hubs

Basque Digital Innovation Hub (BDIH)	http://www.spri.eus/en/basque-industry/basque-digital-innovation-hub/
DIH on Healthcare – Basque Country (SALUD 4.0)	https://dih-hero.eu/
Innovalia ZDM Digital Innovation Hub	http://digiware.org
SmartCityTech	http://www.smartcitytech.eu/

Policy

Plan de Ciencia,Tecnología e Innovación Euskadi 2030	https://www.euskadi.eus/contenidos/informacion/despliegue_pcti_euskadi/es_def/adjuntos/Bases_PCTI_Euskadi_2030_documento.pdf

FundingProgramme

PM-related Stakeholders

Basque Agency for Business Development	SPRI	Innovation Agency	https://www.spri.eus/en	
Basque foundation for health research and innovation / berrikuntza + ikerketa + osasuna eusko fundazioa	BIOEF	Policy - Research & Innovation	https://www.bioef.org/	
Basque Government / Euskal Autonomia Erkidegoa		Policy	http://www.euskadi.eus/hasiera/	
Basque Network of Science, Technology and Innovation	RVCTI	Cluster	https://apps.euskadi.eus/aa40paWebPublicaWar/webPublicaJSP/aa40painicio.do?idioma=es	
Basque Office for Health Technology Assessment	OSTEBA		https://www.euskadi.eus/web01-a2ikeost/en/	

Basque Research and Technology Alliance	BRTA	Cluster	https://www.brta.eus/	
GAIA Association of Knowledge and Applied Technologies industries in the Basque Country		Cluster	https://www.gaia.es/	
Tecnalia			https://www.tecnalia.com/ambitos/salud-personalizada	center for applied research and technological development

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN); ICPerMed

ES22   Comunidad Foral de Navarra / Chartered Community of Navarre

Navarre is an autonomous community and province in northern Spain with a population of 647,000. The regions' S3 priorities include a focus on public health and security and public health and well-being in the areas of health care services and bio medicine. The region Is Involved in a number of major initiatives including NAGEN 1000, DIANA and PharmaNAGEN.

Innovation Performance group (2021)	Moderate innovator +
Population Density (per km² (2019)	63
Total population (2019)	649946
Proportion older 65y % (2019)	19,80%
Mountain, remote, island?	> 50 % of population live & > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 Personalised Medicine : Navarra is a pioneer at the national level in the approval of a Comprehensive Strategy for Personalised Medicine integrating the fields of health, innovation and economic development. It is emerging as one of the most dynamic Biomedical clusters in Spain and among the technological fields with a very high rate of specialization, food chemistry, pharmaceutical products and biotechnology stand out. Focus: Development and production of customised prevention, diagnosis, and treatment solutions Big data and artificial intelligence applied to clinical care Healthy nutrition and well-being

url RIS3 2021-2027   https://www.redpoliticasidi.es/es/system/files?file=repositorio-archivos/castellano_SODENA_DOSSIER-ESTRATEGIA_AF_web.pdf

RIS3 priorities 2014-20   Bio medicine. Medical equipment. Healthcare services. Education and knowledge generation.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ES22

PM-related Best Practices
Interregional Collaborations

BigDATia - cross-border hub of excellence in Artificial Intelligence and Big Data incl health	http://www.competitiveko.eu/en/bigdatia-2/
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/
INNOVMEDICA - cross-border center of excellence for medical devices and e-health	http://www.competitiveko.eu/innovmedica-alliance/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
Regions4PerMed	https://www.regions4permed.eu/

SAPHIRe Regional Report

Project

DIANA: Diagnóstico biomédico e Innovación Abierta en Navarra		www.proyectodiana.es
NAGEN 1000		https://www.nagen1000navarra.es/es
PharmaNAGEN		https://www.navarrabiomed.es/en/research/projects/pharmanagen
Pregraduate Medical School Itinerary		https://navarra.elespanol.com/articulo/sociedad/upna-impulsa-medicina-personalizada/20190618184717270216.html
Primary school dissemination		https://www.navarra.es/home_es/Actualidad/Sala+de+prensa/Noticias/2019/03/14/Presentado+nuevo+libro+de+divulgacion+cientifica+para+escolares.htm

Biobanks, Cohorts and genomic initiatives

Biobank of the University of Navarra	https://cima.cun.es/investigacion/plataformas-tecnologicas/plataforma-
Navarra BIOMED Biobank	https://www.navarrabiomed.es/en/servicios/plataformas/biobank
Population registry of rare diseases of Navarra	https://www.orpha.net/consor/cgi-

Digital Innovation Hubs

IRIS: European Digital Innovation Hub Navarra	https://www.irisnavarra.com/
NAVARDMIHub: Navarra Region Digital Manufacturing Innovation HUB	https://www.clustercollaboration.eu/cluster-organisations/industrial-transformation-cluster-ain

Policy

Plan de Ciencia, Tecnología e Innovación	https://gobiernoabierto.navarra.es/sites/default/files/20170802_plan_de_ciencia_y_tecnologia_final.pdf
Science and Technology Law of the Government of Navarra / Ley Foral 15/2018, de 27 de junio, de Ciencia y Tecnología	https://www.boe.es/buscar/pdf/2018/BOE-A-2018-10582-consolidado.pdf

FundingProgramme

PM-related Stakeholders

Government of Navarra - Department of Health / Gobierno de Navarra - Departamento de Salud		Policy - Healthcare	https://www.navarra.es/home_en/	
Government of Navarra - University Department, Innovation and Digital Transformation / Gobierno de Navarra - Departamento de Universidad		Policy - Research & Innovation	https://www.navarra.es/es/gobierno-de-navarra/departamento-de-universidad-innovacion-y-transformacion-digital	
Navarra Hospital Complex	NHC	Hospital	https://www.pamplona.es/entidades/complejo-hospitalario-de-navarra-hospital-de-navarra	

Navarrabiomed | Biomedical Research Center		Research	https://www.navarrabiomed.es/en	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN); European Alliance for Personalised Medicine (EAPM); European Association for Predictive, Preventive and Personalised Medicine (EPMA); ICPerMed

Navarrabiomed | Biomedical Research Center			https://www.navarrabiomed.es/en	

Memberships/Representations In EU/international projects or initiatives in the area of PM

ES24   Aragón / Aragon

Innovation Performance group (2021)	Moderate innovator
Population Density (per km² (2019)	28
Total population (2019)	1320586
Proportion older 65y % (2019)	21,65%
Mountain, remote, island?	> 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Healthy ageing. Improvement of the quality of life with special attention to the dispersed and ageing population. ICT. Digital Agenda

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ES24

PM-related Best Practices

Interregional Collaborations

KATY - AI-Empowered Personalised Medicine System to Improve Cancer Treatments	https://katy-project.eu/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/

Project

Biobanks, Cohorts and genomic initiatives

Biobank of the Aragon Health System	https://www.iacs.es/servicios/biobanco/
Rare disease registry of Aragon	https://www.orpha.net/consor/cgi-

Digital Innovation Hubs

HPC-Cloud and Cognitive Systems for Smart Manufacturing processes, Robotics and Logistics.	https://www.aragondih.com

Policy

FundingProgramme

PM-related Stakeholders

Aragonese Institute of Health Sciences / Instituto Aragonés de Ciencias de la Salud	IACS	Policy - Research & Innovation	https://www.iacs.es/	
Arahealth, Health Cluster of Aragón		Cluster	http://www.arahealth.com/Default.asp?lang=en	
ITAINNOVA Technological Institute of Aragon / Instituto Tecnológico de Aragón	ITAINNOVA	Research	https://www.itainnova.es/	
University of Zaragoza	UNIZAR	Research	http://www.unizar.es/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

ES30 — Comunidad de Madrid / Community of Madrid

Innovation Performance group (2021)	Strong innovator -
Population Density (per km² (2019)	840
Total population (2019)	6641649
Proportion older 65y % (2019)	17,86%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Health - Biomedical engineering, instrumentation and information technology in biomedicine. Pharmacology, medicinal chemistry and advanced therapies. Pathophysiology and interactome includes molecular and cellular communication. Clinical and Translational Research. Transfer and genetic modification. Development of new detection methods, genomics, proteomics, metabolomics and bioinformatics. Biotechnology. Nanosciences. Advanced materials. Development of instrumentation, microsystems and sensors. Robotics

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ES30

PM-related Best Practices

Interregional Collaborations

DIGICORE - DIGital Institute for Cancer Outcomes Research	
DIHsP4 - Action plan to shape corridors among DIHs to foster innovation ecosystems and accelerate the deployment of the P4 Medicine Paradigm| Fostering collaboration among Digital Innovation Hubs in the area of P4 medicine	https://cordis.europa.eu/project/id/101070719
EurOPDX	https://www.europdx.eu/
GenoMed4All	https://genomed4all.eu/
iNEXT-Discovery Project - Infrastructure for transnational access and discovery in structural biology	https://cordis.europa.eu/project/id/871037
Personalised Body Sensor Networks with Built-In Intelligence for Real-Time Risk Assessment and Coaching of Ageing workers, in all types of working and living environments	https://cordis.europa.eu/project/id/826304
PROPHET - a PeRsOnalized Prevention roadmap for the future HEalThcare	https://cordis.europa.eu/project/id/101057721
SYNCHROS - SYNergies for Cohorts in Health: integrating the ROle of all Stakeholders	https://synchros.eu/

16/05/2023

not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Project

Biobanks, Cohorts and genomic initiatives

Alcorcón Foundation University Hospital Biobank	https://www.comunidad.madrid/hospital/fundacionalcorcon/profesionales/bio
Biobank Biomedical Research Foundation Hospital de La Princesa	https://www.iis-princesa.org/infrastructure/biobanco/?lang=en
Biobank Centro Oncológico MD Anderson-International Spain	https://fundacionmdanderson.es/biobanco
Biobank Hospital Ramón y Cajal IRYCS	https://www.irycis.org/es/servicios/1/biobanco
Biobank i+12 Hospital October 12	https://imas12.es/en/services/i12-biobank/
Biobank of the Health Research Institute of the San Carlos Clinical Hospital	http://www.idissc.org/investigacion-servicios-unidades-soporte-
HGM HIV Biobank (regorio Marañón Hospital	http://hivhgmbiobank.com/
Hospital La Paz Institute for Health Research Biobank	https://idipaz.es/PaginaDinamica.aspx?IdPag=25&Lang=EN
Jiménez Díaz Foundation Biobank	https://www.fjd.es/iis-fjd/en/support-units/core-facilities/biobank
Neurological Diseases Research Center Foundation Biobank - Brain Bank	https://bt.fundacioncien.es/
Puerta de Hierro Majadahonda University Hospital Biobank (HUPHM)	https://investigacionpuertadehierro.com/biobanco/
ReeR: Spanish National Registry of Rare Diseases	https://www.orpha.net/consor/cgi-
SIERMA: Information system on rare diseases in Madrid	https://www.orpha.net/consor/cgi-
SpainRDR: Spanish Rare Disease Registries Research Network (patient registries)	https://www.orpha.net/consor/cgi-
Spanish Registry of Patients with Fanconi Anemia	https://www.orpha.net/consor/cgi-

Digital Innovation Hubs

5TONIC Open 5G Lab 5TONIC	https://www.5tonic.org
AIR4S - Artificial Intelligence & Robotics for Sustainable Development Goals	http://www.upm.es/dih-air4s
Centro Nacional de Tecnología de Riegos (CENTER)	http://www.mapama.gob.es/es/desarrollo-rural/temas/centro-nacional-tecnologia-regadios/
Digital Health-Biosciences (DIH·bio)	https://www.knode.eu/en/dihbio
RoboCity2030	http://www.robocity2030.org/

Policy

FundingProgramme

16/05/2023

PM-related Stakeholders

Biohope - IVD, Precision medicine in immunosupression		Corporate - Medtech	https://biohope.eu/	
MD Anderson Cancer Center Spain Foundation		Research	https://fundacionmdanderson.es/	
San Carlos Health Research Institute	IdISSC	Research	http://www.idissc.org/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

ES41   Castilla y León

Innovation Performance group (2021)	Moderate innovator -
Population Density (per km² (2019)	26
Total population (2019)	2407733
Proportion older 65y % (2019)	25,23%
Mountain, remote, island?	Some parts mountains

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	Quality of life / Open and collaborative health and innovation / Immunotherapy using biological drugs / biotechnology applied to vaccine development / Development of cancer diagnostic tools including the use of big data and artificial intelligence / Person-centred care /Biotechnology, precision medicine, e-health, cancer (diagnosis and treatment), molecular biology /new technologies for personalised care / Within precision medicine, the application of big data to the diagnosis, prognosis and treatment of big data to the diagnosis, prognosis and treatment of chronic diseases, the digitalisation of the sector (from tele-assistance to the to the application of AI to the diagnosis and treatment of diseases, to the treatment of diseases, to the management of healthcare and clinical research)
url RIS3 2021-2027	https://cienciaytecnologia.jcyl.es/web/jcyl/binarios/293/632/Grupo%20EDP%203%20Salud%20y%20Atenci%C3%B3n%20Social%20resultados.pdf?blobheader=application%2Fpdf%3Bcharset%3DUTF-8&blobnocache=true
RIS3 priorities 2014-20	Health, social care, demographic change and well-being. Biomedical research and applications, innovative medicines, research and innovation in social care, ageing and ambient-assisted living. - Cancer research and new therapeutic and diagnostic solutions, biomedical research, attention to long-term patients, technologies for social inclusion. - KETs: biotechnology (cellular therapy, molecular diagnostic, pharmacology, tissue engineering), ICT (e-Health), and advanced materials (biopolymers, nanomaterials). Big Data Cloud
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ES41

PM-related Best Practices
Interregional Collaborations

CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
GenoMed4All	https://genomed4all.eu/
MEDIC-NEST project - Precision MEDIcine Clusters integrating Digital Technologies for New EcoSystems in HealThcare	https://echalliance.com/medic-nest-kick-off-cosme-project-on-precision-medicine-clusters-integrating-digital-technologies-for-new-ecosystems-in-healthcare/

SAPHIRe Regional Report

Project

Biobanks, Cohorts and genomic initiatives

National DNA Bank: Rare diseases sample collection	https://www.orpha.net/consor/cgi-
University Hospital of Salamanca Biobank	

Digital Innovation Hubs

Cybersecurity Innovation HUB	https://www.cyberdih.com/
DIGIS3 - Smart, Sustainable and coheSive Digitalization	https://digis3.eu/en
Digital Silver Economy (DIHDSE)	https://www.dihsilvereconomy.com/en
DIHBU Industry 4.0	https://dihbu-industry.fundingbox.com/
IoT DIH	http://innovationhub.es
Smart City Valladolid and Palencia (Smart City VyP)	http://www.smartcity-vyp.es/en/

Policy

Plan persona - Centrando la atención sanitaria en ti	https://www.saludcastillayleon.es/institucion/es/planes-estrategias/plan-persona.ficheros/2007708-Plan%20Persona.pdf
Regional Strategy for Oncology Patient Care in Castilla y León - ONcyl Strategy-	https://www.saludcastillayleon.es/institucion/es/atencion-paciente-oncologico

FundingProgramme

PM-related Stakeholders

Government of Castile and León / Junta de Castilla y León		Policy	http://www.jcyl.es/	
Health Cluster of Castile and León / Cluster de Salud de Castilla y León	BIOTECYL	Cluster	https://www.biotecyl.com/	
Institute for Biomedical Research of Salamanca / Instituto de Investigación Biomédica de Salamanca	IBSAL	Research	https://ibsal.es/en/	Partner GenoMed4All
Institute of Cancer Molecular and Cellular Biology / Instituto de Biología Molecular y Celular del Cáncan de Salamanca	IBMCC	Research	https://www.usal.es/instituto-universitario-de-biologia-molecular-y-celular-del-cancer-ibmcc	

Institute of Molecular Biology and Genetics / Instituto de Biología y Genética Molecular	IBGM	Research	http://www.ibgm.med.uva.es/	
Invest in Castilla y León	ICE	Innovation Agency	https://www.investincastillayleon.com/	
Junta de Castilla y León - Ministry of Health		Policy - Healthcare	https://www.saludcastillayleon.es/es	
Salamanca Cancer Research Center / Centro de investigación del Cáncer /	CIC / USAL-CSIC	Research	https://www.cicancer.org/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

ES42   Castilla-La Mancha

Innovation Performance group (2021)	Emerging innovator +
Population Density (per km² (2019)	26
Total population (2019)	2034877
Proportion older 65y % (2019)	18,99%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Bioeconomy. Bioproducts ICT

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ES42

PM-related Best Practices

Interregional Collaborations

Biotechnology applied to Healthcare	https://ibecbarcelona.eu/el-ibec-liderara-el-mayor-consorcio-estatal-de-biotecnologia-para-salud/
DIALOG - Dialog for Innovation And LOcal Growth	http://www.interregeurope.eu/dialog/

Project

Biobanks, Cohorts and genomic initiatives

SAPHIRe Regional Report

Digital Innovation Hubs

i4CAM HUB (Innovation for competitiveness and advanced manufacturing)	http://www.i4camhub.com

Policy

FundingProgramme

PM-related Stakeholders

Government Castilla-La Mancha - Health / Junta de Castilla-La Mancha - Sanidad		Policy - Healthcare	https://www.castillalamancha.es	

Memberships/Representations In EU/international projects or initiatives in the area of PM

ES43   Extremadura

Extremadura is an autonomous community of the western Iberian Peninsula with a population of 1 million. The strategic activities of the region include a focus on socio-health care and those aimed at the diagnosis and treatment of diseases. Thus, tele-medicine, tele-care, or the development of applications for care and assistance in the home, as well as the monitoring of chronic patients.

The region also has a focus on the use of the use of "omic" techniques (genomics, proteomics, among others), and the development of health technologies, medical devices and new drugs. The health sector is also focussing on making infrastructure and public services a model of a "living laboratory" in which to generate and validate technologies that improve the quality of life of citizens. For PM-related competences see https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_2fb616ea0859469fbb8bd47d7dfc9082.pdf

Innovation Performance group (2021)	Emerging innovator +
Population Density (per km² (2019)	26
Total population (2019)	1065424
Proportion older 65y % (2019)	20,64%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	BioMedicine / Health and well-being / personalised healthcare services / Personalised Medicine Technologies
url RIS3 2021-2027	http://www.ris3extremadura.es/
RIS3 priorities 2014-20	The strategic activities of the region in healthcare are grouped into two large categories. 1. activities related to socio-health care; and 2. those aimed at the diagnosis and treatment of diseases. Thus, tele-medicine, tele-care, or the development of applications for care and assistance in the home, as well as the monitoring of chronic patients, are considered key activities for the region. In the same way, the development of materials for biomedical applications, or of biosensors and nano-sensors to monitor health status are examples of potential regional specialisation activities in the sector. In the category of diagnosis and treatment of diseases, the use of "omic" techniques (genomics, proteomics, among others), or the development of health technologies, medical devices and new drugs is essential. Likewise, there is a high potential in the connection between health and food in the field of functional foods, pro-biotics or food supplements. Finally, it is worth highlighting the opportunity that is opened in the health sector to make infrastructure and public services a model of "living laboratory" in which to generate and validate technologies that improve the quality of life of citizens. ICT. Information and Communication Technologies, beside being a transversal S&T domain that facilitate the development of other regional specialisation areas, it is an area of excellence itself with capacity and potential in Extremadura. A series of key activities with high potential for specialisation in the sector in the region are Data management (Big Data, Sensor Networks, Remote Sensing, Linked Data and Open Data), Cloud Computing (provision of ICT resources and computer applications that contribute to

the improvement of competitiveness, internationalisation and/or cost reduction by companies, citizens or Public

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ES43

PM-related Best Practices

Interregional Collaborations

Biotechnology applied to Healthcare	https://ibecbarcelona.eu/el-ibec-liderara-el-mayor-consorcio-estatal-de-biotecnologia-para-salud/
S3P4PM - Smart Specialisation Platform for Personalised Medicine	https://s3platform.jrc.ec.europa.eu/personalised-medicine

Project

MedeA Personalized Medicine Clinical Implementation in the Health Care Service Implementation		proyectomedea.es

Biobanks, Cohorts and genomic initiatives

Biobank of the Badajoz Health Area	https://www.areasaludbadajoz.com/index.php/biobanco
Registry for rare diseases in Extremadura (Spain)	https://www.orpha.net/consor/cgi-

Digital Innovation Hubs

Ecosistema W	http://www.conectoride.com/
FIWARE Space	https://www.fiware.space/
Technologies for Efficiency Digital Innovation Hub Extremadura (T4E DIH)	http://www.dih4e.eu

Policy

FundingProgramme

PM-related Stakeholders

Badajoz Health Area Management / Gerencia del Área de Salud de Badajoz			https://www.areasaludbadajoz.com/	local health execution
Center for Scientific and Technological Research of Extremadura / Centro de Investigaciones Científicas Y Tecnológic	CICYTEX	Research	http://cicytex.juntaex.es/en/	regional execution & funding R&D
Computation and Advanced Technologies Foundation of Extremadura / Fundación Computación y Tecnologías Avanzadas de E	COMPUTAEX	Policy - Research & Innovation	http://www.cenits.es/fundacion	regional execution & funding R&D
Extremadura Health Services / Servicio Extremeño de Salud Extremadura	SES		https://saludextremadura.ses.es/web/	regional execution & funding health
Extremadura Science and Technology Park / Parque Científico y Tecnológico de Extremadura	FUNDECYT	Infrastructure	http://www.fundecyt.es/	regional execution & funding innovation
Foundation for Training and Research of Health Professionals of Extremadura / Fundación para la Formación e Investigación de los Profesionales de la Salud de Extremadura	FundeSalud		http://fundesalud.es/web/inicio?hl=en_GB	regional execution & funding R&D
Healthcare Cluster de la Salud		Cluster	http://www.clustersalud.es/	
Jesús Usón Minimally Invasive Surgery Center / Centro de Cirugía de Mínima Invasión Jesús Usón	CCMIJU	Research	https://www.ccmijesususon.com/en/	regional execution & funding R&D
Ministry of Health and Social Policy of the Government of Extremadura / Consejería de Sanidad y Políticas Sociales de la Junta de Extremadura		Policy	http://www.juntaex.es/con05/	regional policy
Regional Government of Extremadura / Junta de Extremadura		Policy	http://www.juntaex.es/web/	regional policy
University of Extremadura / Universidad de Extremadura	Uex	Research	https://www.unex.es/	regional execution & funding R&D

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

ES51   **Catalunya / Cataluña / Catalonia**

The North-Eastern region of Cataluña is one of Spain's most prosperous. It has population of 7.3 million. With strong government backing, the region is now focused on developing its capabilities in personalised medicine and the use of big data.

The Catalan government's Research and Innovation in Health Directorate have stated that personalised medicine is a key priority for the region. The science and infrastructure are already available, the goal is to move to make personalised healthcare an area of interest and build on the available assets that exist within the region.

Innovation Performance group (2021)	Moderate innovator +
Population Density (per km² (2019)	238
Total population (2019)	7566431
Proportion older 65y % (2019)	19,11%
Mountain, remote, island?	> 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Health industries (fine chemicals,pharmaceutical preparations, medical technology industry, insurance industry and hospital system)
url RIS3 2014-2020	http://catalunya2020.gencat.cat/ca/ris3cat/

PM-related Best Practices

Interregional Collaborations

B1MG - Beyond 1 Million Genomes Pan-European initiative to create genome-based health data infrastructure	https://b1mg-project.eu/
Biotechnology applied to Healthcare	https://ibecbarcelona.eu/el-ibec-liderara-el-mayor-consorcio-estatal-de-biotecnologia-para-salud/
BOOST - Boosting Smart Regional Innovation	Ecosystems Interregional collaboration to form an EU-wide innovation ecosystem	https://cordis.europa.eu/project/id/101070737
Boost4Health	https://www.boost4health.eu/
CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
EDAH - Interconnecting innovation ecosystems for common European data space in Health	The future of health and care data in Europe	https://cordis.europa.eu/project/id/101070811

EOSC4Cancer - European Open Science Cloud for Cancer	https://eosc4cancer.eu/
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/
EUCANCan: a federated network of aligned and interoperable infrastructures for the homogeneous analysis, management and sharing of genomic oncology data for Personalized Medicine	https://cordis.europa.eu/project/id/825835
EUCAN-Connect	https://eucanconnect.com/
EurOPDX	https://www.europdx.eu/
GenoMed4All	https://genomed4all.eu/
IndividualizedPaediatricCure: Cloud-based virtual-patient models for precision paediatric oncology	https://cordis.europa.eu/project/id/826121
iNEXT-Discovery Project - Infrastructure for transnational access and discovery in structural biology	https://cordis.europa.eu/project/id/871037
INNAXE - Inclusive & aligned INNovation Agendas across Europe	https://cordis.europa.eu/project/id/101070847
KATY - AI-Empowered Personalised Medicine System to Improve Cancer Treatments	https://katy-project.eu/
LEGACy - CeLac and European consortium for a personalized medicine approach to Gastric Cancer	https://legacy-h2020.eu/
MedIT - Information Technologies in Medicine	http://www.meditcluster.com/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
MyPeBS - My Personal Breast Screening	https://www.mypebs.eu/
OncoTrack - Methods for systematic next generation oncology biomarker development	http://www.oncotrack.eu/
PNANO4BONE - Nanovectors engineered for plasma enhanced theranostics in regenerative medicine	https://www.era-learn.eu/network-information/networks/m-era-net-2/m-era-net-call-2016/nanovectors-engineered-for-plasma-enhanced-theranostics-in-regenerative-medicine
PRECeDI - Personalized PREvention of Chronic Diseases	http://www.precedi.eu/site/index.php
S3 ClusSport	https://s3platform-legacy.jrc.ec.europa.eu/sport
Screen4Care - Accelerating Diagnosis for Rare Disease Patients Through Genetic Newborn Screening and Artificial Intelligence	https://www.screen4care.eu/
SPIDIA for Personalized Medicine - Standardisation of generic Pre-analytical procedures for In-vitro DIAgnostics for Personalized Medicine	https://cordis.europa.eu/project/id/733112
SYNCHROS - SYNergies for Cohorts in Health: integrating the ROIe of all Stakeholders	https://synchros.eu/

Project

La Meva Salut - my Health		https://web.gencat.cat/en/tramits/que-cal-fer-si/catsalut-la-meva-salut/
MedPerCan - Personalised Medicine in Cancer - Catalunya		https://cnag.crg.eu/projects/medpercan
Urdcat "Undiagnosed rare diseases Catalunya"		https://cesarafern.wixsite.com/urdcat

SAPHIRe Regional Report

Biobanks, Cohorts and genomic initiatives

Biobank of the Children's Hospital for research San Joan de Deu for research	https://www.sjdrecerca.org/ca/
Biobank of the Hospital Clínic de Barcelona	http://www.clinicbiobanc.org/
Biobank Pere Virgili Health Research Institute Foundation	https://www.iispv.cat/en/plataforma-de-suport/biobanc-iispv/
DNA repair biobank	https://www.orpha.net/consor/cgi-
GCAT- Genomics for life	http://www.gcatbiobank.org/qui-som/en_index/
HUB-ICO-IDIBELL Biobank	https://idibell.cat/en/services/scientific-and-technical-services/biobank/
IDIBGI Biobank (Girona Biomedical Research Institute Dr. Josep Trueta)	https://idibgi.org/en/biobanc/
IGTP-HUGTP Biobank	http://www.germanstrias.org/technology-services/biobank/
IRBLleida BioBank	https://www.irblleida.org/en/technical-scientific-services/biobank/
MAR Health Park Biobank	https://marbiobanc.imim.es/
Vall d'Hebron University Hospital Biobank	http://www.vhir.org/services_portfolio/BIOBANK/biobank_services.html

Digital Innovation Hubs

5GBarcelona	http://www.5gbarcelona.cat/
Associació Clúster Digital de Catalunya	http://www.clusterdigital.cat
Barça Innovation Hub (BIHUB)	http://barcainnovationhub.com/
Barcelona Activa SA SPM	http://www.barcelonactiva.cat
Barcelona Science Park	http://www.pcb.ub.edu
Catalonia AI DIH	https://www.bigdatabcn.com/en/catalonia-ai-dih/
Catalonia Digital Innovation Hub (DIH4CAT)	https://dih4cat.cat/
Centre d'Innovació i Tecnologia de la UPC (CIT UPC)	https://cit.upc.edu/en
Digital Water Innovation Hub (Digital Water)	https://eurecat.org/en/centres-of-excellence/centre-for-water-management-excellence/
Experience-based industries Hub (e!xperience)	https://eurecat.org/en/sectors/cultural-and-creative-industries/
Industrial Ring	http://anellaindustrial.cat
International Advanced Manufacturing 3D Hub (IAM 3D HUB)	http://www.iam3dhub.org
IoT Catalan Alliance	https://www.cataloniaiot.com/
La Salle Technova Barcelona	http://technovabarcelona.com/en
Neàpolis	http://www.neapolis.cat
Tecnocampus Technology Park	https://www.tecnocampus.cat/

Policy

FundingProgramme

PM-related Stakeholders

Agency for Management of University and Research Grants / Agència de Gestió d'Ajuts Universitaris i de Recerca	AGAUR	Policy - Research & Innovation	https://agaur.gencat.cat/en/inici/index.html	regional execution research education
Agency of Research Centers of Catalonia / Agència de Centres de Recerca de Catalunya	CERCA		https://cerca.cat/	
August Pi i Sunyer Biomedical Research Institute	IDIBAPS-FCRB	Research	www.idibaps.org	Biological aggression, Cardiopulmonary Bioengineering, Digestive and Liver, Metabolism, Neurosciences, Oncology
Barcelona Biomedical Research Park	PRBB	Infrastructure	https://www.prbb.org/	regional execution innovation
Barcelona Health Hub		Cluster	https://barcelonahealthhub.com/	
Barcelona Institute of Global Health	ISGlobal	Research	https://www.isglobal.org/	Bacterial, Cancer, Climate, Pollution, Malaria, Environment, Migration, Infectious Pathology, Radiation, Global Health, Children's Health, International Health, Viral, HIV/aids
Barcelona Institute of Science and technology	BIST	Research	http://bist.eu/	
Barcelona Supercomputing Centre - Marenostrum	BSC-CNS	Research	https://www.bsc.es/research-and-development/research-development	Super computer, Genomics, molecular modelin
Bellvitge Biomedical Research Institute	Idibell	Research	www.idibell.cat	Cancer, Diabetes, Epigenetics, Molecular genetics, Inflammatory diseases, Neurosciences, Infectious pathology, Transplantation
Biocat		Cluster	https://www.biocat.cat/en	
Catalan Agency for Health Quality and Evaluation / Agència de Qualitat i Avaluació Sanitàries de Catalunya	AQuAS	Policy - Research & Innovation	http://aquas.gencat.cat/ca/inici/	policy
Catalan Association of Research Entities / Associació Catalana d'Entitats de Recerca	ACER		http://www.acer-catalunya.org/entidades.php	

Catalan Foundation for Research and Innovation / Fundació Catalana per a la Recerca i la Innovació	FCRI	Funding	https://www.fundaciorecerca.cat/en/	regional funding research and innovation
Catalan Institute of Nanoscience and Nanotechnology / Institut Català de Nanociència i Nanotecnologia	ICN2	Research	https://icn2.cat/en/	Nanobiomedicine, Nanoscience, Nanostructures, Nanophysics
Catalan Institute of Oncology / Institut Català d'Oncologia	ICO	Research	http://ico.gencat.cat/ca/inici/	
Catalonia Mental Health Cluster		Cluster	http://www.clustersalutmental.cat/	
CataloniaBio & HealthTech	CataloniaBioHT	Cluster	https://www.cataloniabioht.org/	
Centre for Genomic Regulation	CRG	Research	https://www.crg.eu/	international biomedical research institute regional execution research
Biomedical Research Institute in Barcelona	IIBB	Research	https://www.iibb.csic.es/en	
Department of Education / Departament d'Educació		Policy	http://educacio.gencat.cat/	regional policy education
Department of Health / Departament de Salut		Policy - Healthcare	https://salutweb.gencat.cat/ca/inici/	regional policy health
Department of Research and Universities / Departament de Recerca i Universitats		Policy - Research & Innovation	https://universitatsirecerca.gencat.cat/en/inici/index.html	regional policy research
European Molecular Biology Laboratory - Barcelona	EMBL Barcelona	Research	https://www.embl.org/sites/barcelona/	focus on tissue biology and disease modelling
European Molecular Biology Laboratory - Barcelona	EMBL	Research	https://www.embl.es/aboutus/general_information/index.html	research tissue biology and disease modelling
Fundació Eurecat			https://eurecat.org/en/	KET (Key Enabling Technologies) Technology Centre , tech transfer
Germans Trias i Pujol Research Institute	IGTP	Research	http://www.germanstrias.org/	Bioengineering, Bioinformatics, Biotechnology, Cancer, Epidemiology, Inflammation, International Health, Public Health
Girona Biomedical Research Institute / Institut d'Investigació Biomèdica de Girona	IDIBGI	Research	https://idibgi.org/	Cancer, Epidemiology, Public Health
Government of Catalonia / Generalitat de Catalunya		Policy	https://web.gencat.cat/en/generalitat/	

Hospital del Mar Medical Research Institute / Institut Hospital del Mar d'Investigacions Mudique	IMIM	Research	https://www.imim.cat/programesrecerca/es_index.html	regional funding research Biomedicine Health Sciences Translational Clinical Research Program; cancer biomedical computing neuroscience Cancer, Epidemiology, Cardiovascular diseases, Inflammatory diseases, Neurosciences, Public health
Institute for Bioengineering of Catalonia	IBEC	Research	www.ibecbarcelona.eu	Biophysics, Biomechanics, Cell biotechnology, Nanobiotechnology, Medical robotics, nanomedicine, bioengineering
Institute for Research in Biomedicine	IRB	Research	www.irbbarcelona.org	Cancer, Genomics, Metastasis, Proteomics
Institute of Applied Radiopharmacy of Barcelona / Institut de Radiofarmàcia Aplicada de Barcelona	IRAB	Research	https://www.irab.cat/	regional execution research nuclear medicine
Institute of Evolutionary Biology	IBE	Research	https://www.ibe.upf-csic.es/presentation	regional execution research functional and evolutionary genomics
Josep Carreras Leukaemia Research Institute	IJC	Research	www.carrerasresearch.org	Collaboration, Donors, Leukaemia, Lymphoma, Hematological diseases, Bone marrow, Myeloma
Lleida Biomedical Research Institute	IRB Leida	Research	www.irblleida.org	Clinical medicine, Experimental medicine, Neurosciences, Clinical pathologies, Biological systems
Parc Sanitari Sant Joan de Déu	PSSJD		https://www.pssjd.org/	network of healthcare, teaching and research services

Pere Virgili Institute for Health Research / Institut d'Investigació Sanitària Pere Virgili	IISPV	Research	http://www.iispv.cat/	Pain, Haematology, Cardiovascular diseases, Environment, Metabolism, Microbiology, Neurosciences, Nutrition, Obesity, Oncology, Health, Mental health, Toxicology
Rovira i Virgili University	URV	Research	https://www.urv.cat/en/	
TIC Salut Social	TICSS		https://ticsalutsocial.cat/	regional execution health
Vall d'Hebron Institute of Oncology	Vhio	Research	www.vhio.net	Biomarkers, Cancer, Genetics, Oncology. Partner GenoMed4All

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); European Regional and Local Health Authorities (EUREGHA); European Regions Research and Innovation Network (ERRIN); European Alliance for Personalised Medicine (EAPM)

ES52   Comunitat Valenciana / Valencian Community

Innovation Performance group (2021)	Moderate innovator +
Population Density (per km² (2019)	216
Total population (2019)	4974969
Proportion older 65y % (2019)	19,51%
Mountain, remote, island?	> 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   promotion and efficient healthcare systems. Personalized health management, prevention and diagnosis. Health technologies of treatment and interaction between users and health professionals

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ES52

PM-related Best Practices
Interregional Collaborations

CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
Dish project	https://www.dishproject.eu/
EUVECA - European Platform for Vocational Excellence in Health Care	https://ehma.org/euveca-european-platform-for-vocational-excellence-in-health-care/
LEGACy - CeLac and European consortium for a personalized medicine approach to Gastric Cancer	https://legacy-h2020.eu/
MIRRI - Microbial Resource Research Infrastructure	https://www.mirri.org/
Personalised Body Sensor Networks with Built-In Intelligence for Real-Time Risk Assessment and Coaching of Ageing workers, in all types of working and living environments	https://cordis.europa.eu/project/id/826304
S3 ClusSport	https://s3platform-legacy.jrc.ec.europa.eu/sport

Project

SAPHIRe Regional Report

Biobanks, Cohorts and genomic initiatives

Biobank for Biomedical and Public Health Research of the Valencian Community (IBSP-CV)	http://grupos.fisabio.san.gva.es/web/rvb/inicio
CIBERER Biobank	http://www.ciberer-biobank.es/
La Fe Hospital Biobank	https://bancodepatentes.gva.es/en/iisf/-
SIER-CV: Information System on rare diseases in Valencian Community	https://www.orpha.net/consor/cgi-

Digital Innovation Hubs

Dinapsis DIH	https://www.dinapsis.es/dih-dinapsis/
espaitec Science and Technology Park	http://www.espaitec.uji.es
Hub 4.0 of Manufacturing Sectors in Valencian Region	http://hub4manuval.ai2.upv.es
Insomnia Digital Innovation Hub	http://www.innsomnia.es/
ITI Data Hub (The Data Cycle Hub)	https://thedatacyclehub.com/en/
University of Valencia Science Park DIH	https://www.pcuv.es/en/dih

Policy

FundingProgramme

PM-related Stakeholders

Faculty of Medicine and Dentistry at the University of Valencia		Research	https://www.uv.es/uvweb/medicine/en/faculty-medicine-dentistry-1285849537235.html	
Fundació per al Foment de la Investigació Sanitària i Biomèdica de la Comunitat Valenciana / Foundation for the Promotion of Health and Biomedical Research of the Valencian Community	Fisabio		http://fisabio.san.gva.es/en/fisabio	
Health Research Institute– Instituto de Investigación Sanitaria	INCLIVA	Research	https://www.incliva.es/	
Health Research Institute La Fe	HULAFE IIS La Fe	Research	https://www.iislafe.es/en/iis-la-fe/	
Igenomix Foundation		Research	https://igenomixfoundation.com/	
Institute of Biomechanics	IBV	Research	http://www.ibv.org/	

Region of Valencia / Comunitat Valenciana		Policy	https://www.gva.es/va/inicio/presentacion	
Technological Innovation for Health and Well-Being of Institute of Applied Information Technologies and Advanced Communication (ITACA) at universitat Politècnica de València (UPV)	UPV-SABIEN	Research	http://www.sabien.upv.es/	
University Hospital Clínic - Hospital Clínico Universitario de Valencia		Hospital	http://clinicomalvarrosa.san.gva.es/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

16/05/2023

ES53   Illes Balears / Balearic Islands

Innovation Performance group (2021)	Emerging innovator +
Population Density (per km² (2019)	241
Total population (2019)	1188220
Proportion older 65y % (2019)	15,82%
Mountain, remote, island?	Non mountain Islands

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   bio-economy and its related industries.developing innovative and competitive strategies by increasing the human capital quality. health and active aging demands

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ES53

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Population registry of rare diseases of Balearic Islands	https://www.orpha.net/consor/cgi-

Digital Innovation Hubs

DIH-BAITUR: Digital Innovation Hub of the Balearic Islands for Artificial Intelligence and Tourism	http://www.dihbai-tur.com

Policy

FundingProgramme

PM-related Stakeholders

Biotechnological and biomedical cluster of the Balearic Islands		Cluster	https://www.bioib.org/	
Government of the Balearic Islands / Govern de les Illes Balears	BIOIB	Policy	http://www.caib.es/govern/index.do?lang=ca	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); European Regions Research and Innovation Network (ERRIN)

ES61 — Andalucía / Andalusia

Innovation Performance group (2021)	Emerging innovator +
Population Density (per km² (2019)	97
Total population (2019)	8427405
Proportion older 65y % (2019)	17,16%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 cell therapy and regenerative medicine, clinical genetics and genomic medicine, nanomedicine, personalised medicine / e-health

url RIS3 2021-2027   https://s4andalucia.es/

RIS3 priorities 2014-20   Health and well-being systems. Fostering the public health and welfare systems through new integrated models of health and well-being management based on e-health and big data exploitation; biotechnology, regenerative medicine, healthy leaving and ageing. Digital Economy. Incorporation of ICT infrastructure, development, and digital processes to strategic industries, business activities, civil society and for the development of e-government. This will include IoT, Big Data, Could Computing, etc.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ES61

PM-related Best Practices

Interregional Collaborations

Regions4PerMed	https://www.regions4permed.eu/

Project

Proyecto Genoma Médico Andalucia Medical Genome Project	MGP	http://www.clinbioinfosspa.es/content/medical-genome-project

SAPHIRe Regional Report

Biobanks, Cohorts and genomic initiatives

Biobank of the Andalusian Public Health System	https://www.juntadeandalucia.es/salud/biobanco/es
Biobank-Valencian Institute of Oncology Foundation	https://www.ivo.es/en/investigation/biobank/
INCLIVA Biobank	https://www.incliva.es/servicios/plataformas/biobanco/
Registry for rare diseases in Andalusia	https://www.orpha.net/consor/cgi-

Digital Innovation Hubs

BIC EURONOVA S.A.	http://www.bic.es
Data Science and Artificial Intelligence (DASAI)	https://dasciihub.dasci.es/
Data Science and Computational Intelligence Innovation Hub (DaSCII Hub)	http://dasci.es
Digital Innovation Hub Andalucía Agrotech	https://juntadeandalucia.es/organismos/agriculturapescaydesarrollorural/areas/desarrollo-rural/dih-andalucia-agrotech.html
ETICOM, Digital economy cluster in Andalusia	http://www.eticom.com
FIWARE Zone	https://fiware.zone/
Granada Health Technology Park	http://www.ptsgranada.com/
Granada Plaza Tecnológica y Biotecnológica	https://www.ongranada.com/
Industrial Technology Knowledge Linares DIH	http://dih-itkl.es/
National Digital Contents Hub, POLO	http://polodigital.eu/
Parque Tecnológico de Andalucía (PTA)	http://www.pta.es/es/
Robotics Digital Innovation Hub	https://robotics-dih.eu
STP CARTUJA	http://www.pctcartuja.es/

Policy

FundingProgramme

PM-related Stakeholders

Health Technology Park Granada	PTS	Infrastructure	http://www.ptsgranada.com/	
onGranada Tech City, Asociación Clúster Granada Plaza Tecnológica y Biotecnológica		Cluster	https://www.ongranada.com/?lang=en	
Regional Government of Andalusia / Junta de Andalucía		Policy	https://www.juntadeandalucia.es	
Technological Corporation of Andalusia / Corporacion Tecnologica de Andalucia CTA BioTech	CTA	Cluster	https://www.corporaciontecnologica.com/en/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

ES62   **Región de Murcia / Region of Murcia**

Innovation Performance group (2021)	Moderate innovator -
Population Density (per km² (2019)	132
Total population (2019)	1487663
Proportion older 65y % (2019)	15,78%
Mountain, remote, island?	> 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Health, Bio Medecine and Welfare. Housing Care and Social Services (care for the elderly and dependents), Specialised care, Fine chemistry (pharmacy), Sport and health, ICT for hospital management, Access to services, Remote Assistance, Biomedical research. BioTechnology. Nanotechnology
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ES62

PM-related Best Practices
Interregional Collaborations

HealthChain - Boosting value chains in Health at regional and EU level	https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/how-to-participate/org-details/969492400/project/101094676/program/44416173/details

Project

Biobanks, Cohorts and genomic initiatives

Online Biobank of the Region of Murcia	http://www.biobanco.imib.es/
SIERrm: Information System on rare diseases in the Region of Murcia	https://www.orpha.net/consor/cgi-

Digital Innovation Hubs

Innovation for Manufacturing in the South (I4MSOUTH)	https://i4msouth.fundingbox.com/

Policy

FundingProgramme

PM-related Stakeholders

Région de Murcia		Policy	https://www.carm.es/web/pagina?IDCONTENIDO=1&IDTIPO=180	
TIC Biomed		Cluster	https://ticbiomed.org/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

16/05/2023

ES70   Canarias / Canary Islands

Innovation Performance group (2021)	Emerging innovator
Population Density (per km² (2019)	299
Total population (2019)	2206901
Proportion older 65y % (2019)	16,22%
Mountain, remote, island?	Remote Islands, > 50 % of population live and > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Research and development activities in the fields of biotechnology and biomedicine related to biodiversity and tropical diseases.
url RIS3 2014-2020	https://www3.gobiernodecanarias.org/aciisi/ris3/estrategia-ris3-canarias/prioridades

PM-related Best Practices
Interregional Collaborations

ERA-NET TRANSCAN-2 Aligning national/regional translational cancer research programmes and activities	https://www.era-learn.eu/network-information/networks/transcan-2
ERA-NET TRANSCAN-3	https://www.era-learn.eu/network-information/networks/transcan-3

Project

Biobanks, Cohorts and genomic initiatives

SAPHIRe Regional Report

Digital Innovation Hubs

Canary Island Digital Innovation Hub (CIDIHub)	http://www.avantalia.net/dih_canarias.html

Policy

FundingProgramme

PM-related Stakeholders

Canarias Excelencia Tecnológica		Cluster	https://www.canariasexcelenciatecnologica.com/	
Foundation for the Promotion of Applied Scientific Research and Technology in Asturias / Fundación para el Fomento en Asturias de la investigación Científica Aplicada y la Tecnología			http://www.ficyt.es/	
Ministry of Economy, Knowledge and Employment / Gobierno de Canarias - Consejería de Economía, Conocimiento y Empleo	ECE	Policy - Research & Innovation	https://www.gobiernodecanarias.org/ece/	
Ministry of Education, Universities, Culture and Sports / Gobierno de Canarias - Consejería de Educación, Universidades, Cultura y Deportes	EUCD	Policy	https://www.gobiernodecanarias.org/eucd/	
Ministry of Health / Gobierno de Canarias - Consejería de Sanidad	SAN	Policy - Healthcare	https://www.gobiernodecanarias.org/san/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

16/05/2023   not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

EU   European Union - European level

Innovation Performance group (2021)

Population Density (per km² (2019)   109

Total population (2019)   446824564

Proportion older 65y % (2019)   20,25%

Mountain, remote, island?   Mix of mountain & non-mountain / Remote & non-Remote / Islands & non Islands

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20

url RIS3 2014-2020

PM-related Best Practices

Interregional Collaborations

B1MG - Beyond 1 Million Genomes Pan-European initiative to create genome-based health data infrastructure	https://b1mg-project.eu/
BeWell – Blueprint Alliance for a Future Health Workforce Strategy on Digital and Green Skills	https://ehma.org/bewell-blueprint-alliance-for-a-future-health-workforce-strategy-on-digital-and-green-skills/
BIC - Biomarker Commercialization	https://bicguide.biomarker.nu/
CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
Clinical trial of autologous adipose-derived mesenchymal stromal cells (ASC) in the treatment of mild to moderate osteoarthritis	https://cordis.europa.eu/project/id/643809
Codex4SMEs (Companion diagnostics expedited for small and medium-sized businesses)	https://www.nweurope.eu/projects/project-search/codex4smes-companion-diagnostics-expedited-for-smes/
DIGICORE - DIGital Institute for Cancer Outcomes Research	
Dish project	https://www.dishproject.eu/
EDAH - Interconnecting innovation ecosystems for common European data space in Health	The future of health and care data in Europe	https://cordis.europa.eu/project/id/101070811
EOSC4Cancer - European Open Science Cloud for Cancer	https://eosc4cancer.eu/
EUCANCan: a federated network of aligned and interoperable infrastructures for the homogeneous analysis, management and sharing of genomic oncology data for Personalized Medicine	https://cordis.europa.eu/project/id/825835

EUCAN-Connect	https://eucanconnect.com/
EULAC - PerMed	https://www.eulac-permed.eu/
EU-STANDS4PM	https://www.eu-stands4pm.eu/
ExACT- European network staff eXchange for integrAting precision health in the health Care sysTems	http://www.exactproject.net/site/
HealthData@EU Pilot POC	https://www.ehds2pilot.eu/
iNEXT-Discovery Project - Infrastructure for transnational access and discovery in structural biology	https://cordis.europa.eu/project/id/871037
INNAXE - Inclusive & aligned INNovation Agendas across Europe	https://cordis.europa.eu/project/id/101070847
INTERVENE - AI and human genetics to develop tools for disease prevention, diagnosis, and personalised treatment	https://www.interveneproject.eu/
LEGACy - CeLac and European consortium for a personalized medicine approach to Gastric Cancer	https://legacy-h2020.eu/
PERMIT - PERsonalised Medicine Trials	https://permit-eu.org/
PRECeDI - Personalized PREvention of Chronic Diseases	http://www.precedi.eu/site/index.php
PROPHET - a PeRsOnalized Prevention roadmap for the future HEalThcare	https://cordis.europa.eu/project/id/101057721
ReCoDID - Reconciliation of Cohort data in Infectious Diseases	https://recodid.eu/
Screen4Care - Accelerating Diagnosis for Rare Disease Patients Through Genetic Newborn Screening and Artificial Intelligence	https://www.screen4care.eu/
Smartwork - Smart Age-friendly Living and Working Environment	https://www.smartworkproject.eu/
SPIDIA for Personalized Medicine - Standardisation of generic Pre-analytical procedures for In-vitro DIAgnostics for Personalized Medicine	https://cordis.europa.eu/project/id/733112
STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
Support for the health workforce planning and forecasting expert network	http://healthworkforce.eu/
SYNCHROS - SYNergies for Cohorts in Health: integrating the ROle of all Stakeholders	https://synchros.eu/
TO-REACH Transferring Innovations in Health Systems	https://to-reach.eu/

Project

#EuropeansAgainstCOVID19 exchange platform		https://cor.europa.eu/en/engage/Pages/covid19-stories.aspx
COMPARE		https://www.compare-europe.eu/
EU Health Policy Platform		https://webgate.ec.europa.eu/hpf/
European Commission Initiative on Breast Cancer	ECIBC	https://healthcare-quality.jrc.ec.europa.eu/
European Genome-phenome Archive	EGA	https://ega-archive.org/
European Health Data Space	EHDS	https://ec.europa.eu/chafea/health/funding/joint-actions/documents/ja-european-health-data-space-2020_en.pdf

EXSCALATE4CoV (EXaSCale smArt pLatform Against paThogEns)		https://www.exscalate4cov.eu/
Human Brain Project	HBP	https://www.humanbrainproject.eu/en/
Important Project of Common European Interest on High Performance Computing & Big Data enabled Applications Smart Health	IPCEI HPC BDA	http://knowledgebase.e-irg.eu/documents/243153/299805/IPCEI-HPC-BDA.pdf
Innovative Health Initiative Europe's partnership for innovative health	IHI	https://8375a1bf-d451-4822-8345-3c49cddb85f6.filesusr.com/ugd/624c43_f0cd845a94034a67997a3db9204339fd.pdf
Innovative Medicines Initiative Europe's partnership for health	IMI	https://www.imi.europa.eu/
Joint Actions to support the eHealth Network	eHAction	http://ehaction.eu/
KRAKEN (BroKeRage and MArKet platform for pErsoNal data)		https://www.krakenh2020.eu/the_project/overview
Project ValueCare		https://projectvaluecare.eu/
Scirocco Exchange		https://aer.eu/scirocco-exchange-project-personalised-knowledge-transfer-and-access-to-tailored-evidence-based-assets-on-integrated-care/
Training Blueprint for the Digital Transformation of Health and Care	TBDTHC	http://trainblue.eu/

Biobanks, Cohorts and genomic initiatives

Biobanking and Biomolecular Resources Research Infrastructure	http://www.bbmri-eric.eu/
EuroBioBank	http://www.eurobiobank.org/
Euro-Bioimaging	https://www.eurobioimaging.eu/

Digital Innovation Hubs

Policy

1+MG Roadmap 2020-2022	https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=69606
100,000 Genomes Project Pilot Investigators et al. 100,000 Genomes Pilot on Rare-Disease Diagnosis in Health Care - Preliminary Report. N. Engl. J. Med. 385, 1868–1880 (2021)	100,000 Genomes Project Pilot Investigators et al. 100,000 Genomes Pilot on Rare-Disease Diagnosis in Health Care - Preliminary Report. N. Engl. J. Med. 385, 1868–1880 (2021)
Assessment of the EU Member States' rules on health data in the light of GDPR	https://ec.europa.eu/health/sites/health/files/ehealth/docs/ms_rules_health-data_en.pdf
ATMP recommendations in SME BioForum 2022 - EuropaBio	https://www.europabio.org/wp-content/uploads/2022/09/SME_Report_ATMP.pdf
COCIR Recommendations on better healthcare systems and for a vibrant medical & digital technology sectors in Europe	https://www.cocir.org/fileadmin/Publications_2019/19040_COC_Manifesto_A5_ENG_web.pdf
Convention on Human Rights and Biomedicine (ETS No 164) - Oviedo Convention- is the first international legally binding instrument in the field of bioethics.	https://www.coe.int/en/web/bioethics/oviedo-convention
CoR Action Plan to help regions and cities fight the COVID-19 in the European Union	https://cor.europa.eu/en/engage/Documents/CoR-Action-plan-on-Covid19_24March2020%20.pdf

Early Cost Effectiveness of Whole-Genome Sequencing as a Clinical Diagnostic Test for Patients with Inoperable Stage IIIB,C/IV Non-squamous Non-small-Cell Lung Cancer. Pharmacoeconomics 39, 1429–1442 (2021) Simons, M. J. H. G. et al	https://link.springer.com/article/10.1007%2Fs40273-021-01073-y
Early technology assessment of using whole genome sequencing in personalized oncology. Expert Rev. Pharmacoecon. Outcomes Res. 21, 343–351 (2021) Simons, M. et al	https://www.tandfonline.com/doi/full/10.1080/14737167.2021.1917386
EU industrial and pharmaceutical strategy an opportunity to drive Europe's health and growth	https://www.efpia.eu/media/413646/eu-industrial-and-pharmaceutical-strategy-an-opportunity-to-drive-europe-s-health-and-growth.pdf
EU Medical Device Regulations (MDR)	https://www.medical-device-regulation.eu/wp-content/uploads/2019/05/CELEX_32017R0745_EN_TXT.pdf
Europabio's Vision for a EU Life Science and Biotechnology Strategy	https://www.europabio.org/wp-content/uploads/2021/02/2020_01_A-Vision-for-a-EU-Life-Science-and-Biotechnology-Strategy_EuropaBio.pdf
Europe's Beating Cancer Plan	https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12154-Europe-s-Beating-Cancer-Plan
European Health Parliament Recommendations by the Next Generation	https://www.healthparliament.eu/wp-content/uploads/2020/09/EHP_Recommendations_by_the_next_Generation.pdf
European Strategy Forum on Research Infrastructures (ESFRI) Roadmap 2021 (Strategy Report Landscape analysis incl)	https://roadmap2021.esfri.eu/
Financing and Reimbursement Models for Personalised Medicine: A Systematic Review to Identify Current Models and Future Options	https://link.springer.com/epdf/10.1007/s40258-021-00714-9?sharing_token=CVXL0h2USuTXzocDZ0ZL1Pe4RwlQNchNByi7wbcMAY6B6S2HNI-dMiSMUEyx8xOvCQjKIaAalgN2RgViGOWYFaqGZgqLqBtQ3U5b52JWgiIP8H8jksnRpiQi0TXRJOnP-wTU-pMvWLMAXvFMdvLFMUspGYXLnY4ZRBGHLntmigI%3D
GDPR and Biobanking: Individual Rights, Public Interest and Research Regulation across Europe	https://link.springer.com/book/10.1007/978-3-030-49388-2
Guidance for the Harmonisation and Improvement of Economic Evaluations of Personalised Medicine Pharmacoeconomics 39, 771–788 (2021) Vellekoop, H. et al.	https://link.springer.com/article/10.1007/s40273-021-01010-z
Microbial Resource Research Infrastructure (MIRRI)'s Strategic Research & Innovation Agenda 2021 - 2030	https://www.mirri.org/wp-content/uploads/2021/03/MIRRI_SRIA2021-30_Web-version_20210319.pdf
Personalised Medicine : a guide for the patient (an initiative of the European Cancer Patient Coalition)	https://ecpc.org/wp-content/uploads/2020/12/ECPC-personalised-medicine-booklet-V.pdf
Policies on eHealth Shaping Europe's digital future	https://ec.europa.eu/digital-single-market/en/policies/75992/3553
Policy report of the OD Expert Group "Orphan Medicine Incentives. How to address the unmet needs of rare disease patients by transforming the European OMP landscape"	https://od-expertgroup.eu/our-policy-proposals/
Recommendation of the Committee of Ministers of the Council of Europe to member States on research on biological materials of human origin -CM/Rec(2016)6	https://search.coe.int/cm/Pages/result_details.aspx?ObjectId=090000168064e8ff
Recommendation Rec(2006)4 of the Committee of Ministers to EU member states on research on biological materials of human origin and its Explanatory Memorandum	https://www.coe.int/t/dg3/healthbioethic/Activities/10_Biobanks/Rec(2006)4%20EM%20E.pdf
Recommendations for the use of next-generation sequencing (NGS) for patients with metastatic cancers: a report from the ESMO Precision Medicine Working Group Ann. Oncol. 31, 1491–1505 (2020) Mosele, F. et al	https://www.annalsofoncology.org/article/S0923-7534(20)39971-3/fulltext
Recommendations from the Rare 2030 foresight study EURORDIS	https://www.eurordis.org/publication/recommendations-rare-2030-foresight-study
Regional digital health action plan for the WHO European Region 2023–2030	https://apps.who.int/iris/handle/10665/360950

Report of the EU Health Policy Platform Stakeholder Network on 'Profiling and Training the Healthcare Workforce of the Future' : Essential Skills for a Resilient and Effective European Health Workforce (Sept 2022)	https://ehma.org/wp-content/uploads/2022/09/Report-of-the-EU-HPP-Stakeholder-Network-on-%E2%80%98Profiling-and-Training-the-Healthcare-Workforce-of-the-Future.pdf
right of access to preventive health care (EU Charter of Fundamental Rights art 35)	https://fra.europa.eu/en/eu-charter/article/35-health-care
The European Convention on Human Rights and Biomedicine	https://www.coe.int/en/web/conventions/full-list?module=treaty-detail&treatynum=164
ThinkThank AI in Healthcare	https://eithealth.eu/wp-content/uploads/2020/10/Think-Tank-Round-Table-Proceedings_Warsaw_15.09.2020_fin.pdf

FundingProgramme

EU4Health Programme	https://eu4health.eu/

PM-related Stakeholders

Adriatic Ionian Euroregion	AIE	Policy		
AGE Platform Europe		Cluster	https://www.age-platform.eu/	
Alliance4Life		Cluster	http://alliance4life.ceitec.cz/	Alliance4Life is a bottom-up initiative of twelve leading life science institutions from eleven EU-13 countries (CZ, PL, SK, HR, LV, SI, HU, RO, BG, EE, LT) that aims at closing the divide in European health research and innovation.
Assembly of European Regions	AER		https://aer.eu/secretariat/	
Biomedical Alliance in Europe		Cluster	https://www.biomedeurope.org/	
Biotech Social Pact		Cluster	https://biotechsocialpact.com/	
EBRAINS Research Infrastructure		Infrastructure	https://ebrains.eu/	
EITHealth			https://eithealth.eu/	
ELIXIR Europe - distributed infrastructure for biological data		Infrastructure	https://elixir-europe.org/	
EU Health Coalition		Policy - Healthcare	https://www.euhealthcoalition.eu/	
EU-LIFE		Cluster	https://eu-life.eu/	alliance of independent European research institutes in the life sciences building and promoting excellence in the life sciences.

EU-OPENSCREEN ERIC - European Infrastructure of Open Screening Platforms for Chemical Biology		Infrastructure	https://www.eu-openscreen.eu/index.html	
EURACAN - European Reference Network (ERN) on Rare Adult Solid Cancers		Cluster	https://euracan.eu/	
Euro BioImaging	IZB	Infrastructure	https://www.izb-online.de/en/	Incubator
EuroHPC	PTS	Infrastructure	http://www.ptsgranada.com/	
EurOPDX		Infrastructure	https://www.europdx.eu/	
European Alliance for Innovation	EAI	Cluster	https://eai.eu/	
European Alliance for Personalised Medicine	EUAPM	Cluster	https://www.euapm.eu/	
European Alliance of Medical Research Infrastructures	EU-AMRI	Infrastructure	https://eu-amri.org/	collaboration between BBMRI-ERIC, EATRIS-ERIC, and ECRIN-ERIC
European Assocation of Research and Technology Organisations	EARTO	Cluster	https://www.earto.eu/	
European Association of Nuclear Medicine	EANM	Cluster	https://www.eanm.org/	
European Association of Systems Medicine	EASyM	Cluster	https://easym.eu/	
European Bioindustry Association	EuropaBio	Cluster	https://www.europabio.org/	
European Bioinformatics Institute on the Wellcome Genome Campus in Hinxton, UK	EMBL-EBI	Research	https://www.ebi.ac.uk/	Infrastructure big biological data
European Cancer Patient Coalition	ECPC	Cluster	https://ecpc.org/	
European Clinical Research Infrastructrure Network	ECRIN	Infrastructure	www.ecrin.org	
European Confederation of Pharmaceutical Entrepreneurs	EUCOPE	Cluster	https://www.eucope.org/	
European Connected Health Alliance	ECHA	Cluster	https://echalliance.com/	
European Expert Group on Orphan Drug Incentives	OD Expert Group		http://www.od-expertgroup.eu/	
European Federation of Pharmaceutical Industries and Associations	EFPIA	Cluster	https://www.efpia.eu/ - /	
European Health Data & Evidence Network	EHDEN	Cluster	https://www.ehden.eu/	
European Health Management Association	EHMA	Cluster	https://ehma.org/	
European Health Telematics Association	EHTel	Cluster	https://www.ehtel.eu/	European eHealth Multidisciplinary Stakeholder Platform
European infrastructure for translational medicine	EATRIS	Infrastructure	https://eatris.eu/	
European Innovation and Knowledge mHealth Hub		Cluster	https://mhealth-hub.org/	
European Innovation Partnership on Active and Healthy Ageing	EIP on AHA	Cluster	https://ec.europa.eu/eip/ageing/about-the-partnership_en	
European Institute for Innovation through Health Data	i~HD		https://www.i-hd.eu/	
European Molecular Biology Laboratory - Barcelona	EMBL Barcelona	Research	https://www.embl.org/sites/barcelona/	focus on tissue biology and disease modelling

European Molecular Biology Laboratory - Grenoble	EMBL Grenoble	Research	https://www.embl.fr/aboutus/general_information/GR_about/index.html	research and services for structural biology
European Molecular Biology Laboratory - Hamburg	EMBL Hamburg	Research	https://www.embl-hamburg.de/aboutus/general_information/HH_about/index.html	research in structural and infection biology
European Molecular Biology Laboratory - Heidelberg	EMBL Heidelberg	Research	https://www.embl.de/aboutus/general_information/HD_about/index.html	EMBL's headquarters and main laboratory site supports research, services, advanced training, and technology development
European Molecular Biology Laboratory - Rome	EMBL Rome	Research	https://www.embl.it/aboutus/general_information/MR_about/index.html	centre for research in Epigenetics and Neurobiology
European Network of Living Labs	ENoLL	Cluster	https://enoll.org/	
European Observatory on Health Systems and Policies			https://www.euro.who.int/en/about-us/partners/observatory	
European Open Science Cloud	EOSC	Infrastructure	https://eosc-portal.eu/	
European Organisation for Research and Treatment of Cancer	EORTC		https://www.eortc.org/	
European Parliamentary Research Service | Epthinktank	EPRS		https://epthinktank.eu/	
European Patients' Academy on Therapeutic Innovation	EUPATI	Cluster	https://eupati.eu/	
European Reference Networks	ERN	Research	https://ec.europa.eu/health/ern_en	
European Research Infrastructure for biobanking	BBMRI-ERIC	Infrastructure	http://www.bbmri-eric.eu/	
European Society for Medical Oncology	ESMO	Cluster	https://www.esmo.org/	
European Society of Human Genetics	ESHG	Cluster	https://www.eshg.org/index.php?id=home	
European Synchrotron Radiation Facility	ESRF	Research	https://www.esrf.fr/home.html	infrastructure
European Technology Platform for Nanomedicine	ETPN	Cluster	https://etp-nanomedicine.eu/	
European Trade Association representing the medical imaging, radiotherapy, health ICT and electromedical industries	COCIR	Cluster	https://www.cocir.org/index.html	industry
European University Hospital Alliance		Cluster	http://www.euhalliance.eu/	
EURORDIS-Rare Diseases Europe		Cluster	https://www.eurordis.org/	
Gaia-X		Infrastructure	https://www.data-infrastructure.eu/GAIAX/Navigation/EN/Home/home.html	
Health-NCP-Net 3.0	HNN	Cluster	https://www.healthncp.net/	
ICA Regional Network for Central and South Eastern Europe Life Science Universities of Central and South Eastern Europe	CASEE	Cluster	http://www.ica-casee.eu/	
Information Technologies in Medicine (MedIT)	MedIT	Cluster	http://www.meditcluster.com/	

INFRAFRONTIER - The European Research Infrastructure for Modelling Human Diseases		Infrastructure	https://www.infrafrontier.eu/	
Institut Laue-Langevin	ILL	Research	https://www.ill.eu/	international research centre at the leading edge of neutron science and technology
Instruct-ERIC		Infrastructure	https://www.structuralbiology.eu/	Instruct-ERIC is a pan-European distributed research infrastructure 15 Member Countries: BE, CZ, DK, EMBL, FI, FR, Israel, Italy, LV, LT, NL, PT, SK, ES & UK, Observer Country: EL. innovation in biomedical science
Integrating the Healthcare Enterprise Europe	IHE-Europe		https://www.ihe-europe.net/for-governments	
Joint Action to Support the eHealth Network	JAseHN	Cluster	https://jasehn.eu/	
Knowledge Centre on Cancer			https://knowledge4policy.ec.europa.eu/cancer_en	
MedTech Europe		Cluster	https://www.medtecheurope.org/	
MIRRI - Microbial Resource Research Infrastructure		Infrastructure	https://www.mirri.org/	
Personalized PREvention of Chronic DIseases consortium	PRECeDI		http://www.precedi.eu/site/index.php	
SAPIENS European Training Network		Cluster	http://sapiens-itn.eu/	
SHARE - Survey of Health, Ageing and Retirement in Europe		Infrastructure	http://www.fundecyt.es/	regional execution & funding innovation
South-Eastern Europe Health Network	SEEHN	Cluster	http://seehnsec.blogspot.com/	
Strategic Forum on Important Projects of Common European Interest (IPCEI)				
TBMED consortium, An Open Innovation test bed for the development of high-risk medical devices	TBMED	Cluster	https://www.tbmed.eu/	
Vaccines Europe		Cluster	https://www.vaccineseurope.eu/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

FI   Suomi / Finland (National level)

Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_fi_english.pdf

Innovation Performance group (2021)	Innovation leader
Population Density (per km² (2019)	18
Total population (2019)	5517919
Proportion older 65y % (2019)	21,83%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20

url RIS3 2014-2020

PM-related Best Practices

Interregional Collaborations

B1MG - Beyond 1 Million Genomes Pan-European initiative to create genome-based health data infrastructure	https://b1mg-project.eu/
BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
EATRIS - European infrastructure for translational medicinE	https://eatris.eu/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
ERA-NET NEURON Cofund2 togther for brain research	https://www.neuron-eranet.eu/
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/
EU-OPENSCREEN ERIC - European Infrastructure of Open Screening Platforms for Chemical Biology	https://www.eu-openscreen.eu/index.html
HealthData@EU Pilot POC	https://www.ehds2pilot.eu/
INTERVENE - AI and human genetics to develop tools for disease prevention, diagnosis, and personalised treatment	https://www.interveneproject.eu/
ScanBalt BioRegion	https://scanbalt.org/
STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/

TO-REACH Transferring Innovations in Health Systems	https://to-reach.eu/
ULTRAPLACAD - ULTRAsensitive PLAsmonic devices for early CAncer Diagnosis	https://ultraplacad.eu/
UNCAN - a European Initiative to UNderstand CANcer – Drafting a Blueprint for European Cancer Research	https://uncan.eu/

Project

CleverHealth Network		https://www.cleverhealth.fi/en/home
FinnGen		https://www.finngen.fi/en
Sequencing Initiative Suomi	SISu	http://www.sisuproject.fi/

Biobanks, Cohorts and genomic initiatives

Finnish National Node of BBMRI-ERIC	http://www.bbmri.fi/
Hematological Biobank (FHRB)	https://www.helsinki.fi/en/infrastructures/biobank-
Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-
THL Biobank (Finnish Institute for Health and Welfare)	https://thl.fi/en/web/thl-biobank

Digital Innovation Hubs

Policy

Finnish Biobank Act	https://www.finlex.fi/fi/laki/kaannokset/2012/en20120688.pdf
Finnish eHealth and eSocial Strategy 2020	https://stm.fi/julkaisu?pubid=URN:ISBN:978-952-00-3575-4
IMPROVING HEALTH THROUGH THE USE OF GENOMIC DATA Finland´s Genome Strategy Working Group Proposal 2015	https://media.sitra.fi/2017/02/28142539/Improving_health_trough_the_use_of_genomic_data.pdf
Innovating together: Finnish Health Sector Growth Strategy for Research and Innovation Activities, Roadmap for 2016–2018	https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/75145/MEE_guidelines_8_2016_Health_sector_growth_strategy_17062016_web.pdf
Secondary use of health and social data	https://stm.fi/en/secondary-use-of-health-and-social-data
Well-being and Health Sector's Artificial Intelligence and Robotics Programme (Hyteairo) (2021-2022)	https://thl.fi/fi/tutkimus-ja-kehittaminen/tutkimukset-ja-hankkeet/hyvinvoinnin-tekoaly-ja-robotiikka-ohjelma-hyteairo-

FundingProgramme

Health from Cohorts and Biobanks (COHORT) of Academy of Finland	https://www.aka.fi/en/about-us/whats-new/press-releases/20202/finland-makes-use-of-excellent-population-research-
Personalised Health " From Genes to Society" (pHealth) of Academy of Finland	http://www.aka.fi/en/research-and-science-policy/academy-programmes/current-programmes/phealth/
Personalized Health Program of Business Finland	https://www.businessfinland.fi/en/for-finnish-customers/services/programs/personalized-health-finland
ProHealth Growth Programme	https://prohealthgrowth.turkubusinessregion.com/

PM-related Stakeholders

Academy of Finland	AKA	Funding	https://www.aka.fi/en/	national funding research
Biocenter Finland	BF	Research	https://www.biocenter.fi/	infrastructure
Business Finland		Funding	https://www.businessfinland.fi/en/	
ELIXIR Finland		Infrastructure	https://www.elixir-finland.org/en/frontpage/	
Finnish Bioindustry Association	FiB	Cluster	https://finbio.net/	
Finnish Institute for Health and Welfare	THL		https://thl.fi/en/web/thlfi-en	national execution health
Finnish Medicines Agency	FIMEA		https://www.fimea.fi/	
Finnish National Agency for Education			https://www.oph.fi/en	
Finnish National Genome Center		Research	https://stm.fi/en/genome-center	
Finnish Social and Health Data Permit Authority	Findata		https://findata.fi/en/	
Health Startup Association of Finland		Cluster	https://www.upgraded.fi/	national execution innovation
Institute for Molecular Medicine Finland	FIMM	Research	https://www.fimm.fi/node/20	
IT Centre for Science	CSC		https://www.csc.fi/en/home	
Ministry of Economic Affairs and Employment		Policy	https://tem.fi/etusivu	national policy economy & regional affairs
Ministry of Education and Culture		Policy	https://minedu.fi/en/frontpage	national policy education
Ministry of Social Affairs and Health		Policy - Healthcare	https://stm.fi/en/frontpage	national policy health
National Cancer Center Finland	FICAN	Research	https://stm.fi/en/personalized-medicine/national-cancer-center	
Research and Innovation Council			https://valtioneuvosto.fi/en/research-and-innovation-council	
Spark Finland			https://sparkfinland.fi/	
VTT		Research	https://www.vttresearch.com/en	VTT is actively involved in the Finnish Smart Health ecosystem

Memberships/Representations In EU/international projects or initiatives in the area of PM

FI19   **Länsi-Suomi / West Finland**

The Western Finland province (1997-2009) has been divided into seven regions :

Central Finland / Keski-Suomi (FI193)
Southern Ostrobothnia / Etelä-Pohjanmaa (FI194)
Ostrobothnia / Pohjanmaa (FI195)
Satakunta (FI196)
Tampere Region / Pirkanmaa (FI197)
SouthWest Finland / Varsinais-Suomi (FI1C1)
Central Ostrobothnia / Keski-Pohjanmaa (FI1D5)

West Finland is now a larger region at NUTSlevel 2

Innovation Performance group (2021)	Innovation leader -
Population Density (per km² (2019)	24
Total population (2019)	1379749
Proportion older 65y % (2019)	23,10%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Advanced materials. Industrial Biotechnology

url RIS3 2014-2020

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

IoT Compass Hub (DIH)	https://www.seamk.fi/en/iot-compass-hub/
ROBOCOAST	http://www.robocoast.eu
Smart Manufacturing	http://smacc.fi/

Policy

FundingProgramme

PM-related Stakeholders

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); European Regions Research and Innovation Network (ERRIN); Other : Scanbalt

FI193   **Keski-Suomi / Central Finland**

Innovation Performance group (2021)	Innovation leader -
Population Density (per km² (2019)	16
Total population (2019)	275104
Proportion older 65y % (2019)	23,70%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Digital economy. Bioeconomy. Knowledge based economy, Health and Well-being Ecosystem

url RIS3 2014-2020   https://keskisuomi.fi/en/strategic-choices-and-success-stories/smart-specialisation-strategy-for-central-finland/

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Central Finland Biobank	https://www.ksshp.fi/fi-FI/Potilaalle/Biopankki

SAPHIRe Regional Report

Digital Innovation Hubs

Policy

Central Finland Strategy 2040	https://keskisuomi.fi/en/strategic-choices-and-success-stories/central-finland-strategy-2040/

FundingProgramme

PM-related Stakeholders

East Finland Cancer Center (Central Finland, North Savo, South Savo, North Karelia)	FINCAN East	Research	https://www.ficaneast.fi/	
University of Jyväskyla		Research	https://www.jyu.fi/en/research	

Memberships/Representations In EU/international projects or initiatives in the area of PM

FI194   Etelä-Pohjanmaa / Southern Ostrobothnia

Innovation Performance group (2021)	Innovation leader -
Population Density (per km² (2019)	14
Total population (2019)	188685
Proportion older 65y % (2019)	26,00%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Research and development of intelligent materials. well-being

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FI194

PM-related Best Practices

Interregional Collaborations

CONNECTINGHEALTH - CONNECTing the dots withIN diGItal HEALTH Innovation Ecosystems	https://cordis.europa.eu/project/id/101070756
INCENTIVE - Innovation and technology to improve customer-oriented healthcare services	https://www.interregeurope.eu/intencive/

Project

Biobanks, Cohorts and genomic initiatives

SAPHIRe Regional Report

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Central-Finland Cancer Centre - Tays Cancer Centre (Southern Ostrobothnia, Kanta-Häme and Pirkanmaa)	FICAN Mid	Research	https://www.ficanmid.fi/	
University of Applied Sciences Seinäjoki	SeAMK	Research	https://www.seamk.fi/en/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

FI196   Satakunta

Innovation Performance group (2021)	Innovation leader -
Population Density (per km² (2019)	28
Total population (2019)	216752
Proportion older 65y % (2019)	27,70%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 welfare economy - health technologies - prevention and treatment of diseases - health maintenance

url RIS3 2021-2027   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FI196

RIS3 priorities 2014-20   Bioeconomy.well-being enhancing technology and services. The region's well-being technology expertise enhances smart specialisation and growth opportunities.Automation and robotics. Satakunta region has a wide and strong automation and robotics cluster: The Robocoast network includes more than 100 companies of automation, robotics, internet and artificial intelligence (AI) together with research, education and training institutions and development agencies. In these organisations work more than 1000 top experts. In the field of automation and robotics technology expertise and in particular software competence are emphasized. Robocoast network is also internationally connected and recognized having tight cooperation contacts both in Europe and China. Automation, robotics and AI are key cross-cutting issues fostering region?s competitiveness and growth, today and in the future.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FI196

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

ROBOCOAST	http://www.robocoast.eu

Policy

FundingProgramme

PM-related Stakeholders

Finnish Western Cancer Center (Southwest Finland , Satakunta and Ostrobothnia)	FICAN West	Research	https://ficanwest.fi/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

FI197   ## Pirkanmaa / Tampere region

Innovation Performance group (2021)	Innovation leader -
Population Density (per km² (2019)	41
Total population (2019)	517666
Proportion older 65y % (2019)	22,10%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Health of the Future, biomedical systems. Human spare parts, medicines, biomedical systems and devices, health services

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FI197

PM-related Best Practices
Interregional Collaborations

CoHeWe - Co-Created Health and Wellbeing	https://www.eura2014.fi/rrtiepa/projekti.php?projektikoodi=A74215
Vanguard Initiative Smart Health Pilot Project	https://www.s3vanguardinitiative.eu/pilots/smart-health

Project

Biobanks, Cohorts and genomic initiatives

SAPHIRe Regional Report

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Central-Finland Cancer Centre - Tays Cancer Centre (Southern Ostrobothnia, Kanta-Häme and Pirkanmaa)	FICAN Mid	Research	https://www.ficanmid.fi/	
Council of Tampere Region / Pirkanmaan liitto		Policy - Research & Innovation	https://www.pirkanmaa.fi/?lang=en	
Tampere University Hospital		Hospital	https://www.tays.fi/en-US	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

FI1B1   ## Helsinki-Uusimaa / Region of Helsinki

Innovation Performance group (2021)	Innovation leader +
Population Density (per km² (2019)	185
Total population (2019)	1689725
Proportion older 65y % (2019)	17,90%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 healthcare for well-being for citizens & well-functioning everyday life

url RIS3 2021-2027 https://s3platform-legacy.jrc.ec.europa.eu/documents/20182/0/Smart_specialisation_strategy_for_Helsinki-Uusimaa_Region.pdf/f3c1945c-8d4c-480e-94a3-4eeb5e298900

RIS3 priorities 2014-20 Industrial modernisation. The Helsinki-Uusimaa region produces various configurable products using for example industrial IoT and mobile technologies. We develop leading-edge technologies for future industry and processes. Helsinki-Uusimaa has broad innovation activity in strategic value chains such as self-driving vehicles, smart health, low-carbon industry, hydrogen technology, the industrial internet of things, and cyber security. Areas covered by the theme include, for example, new industrial processes, health technologies, robotics, and travel. bioeconomy innovations and new materials. Citizen city. The Helsinki-Uusimaa region is an active hub for companies and start-ups creating agile and user-focused services and solutions. Our region is among the world leaders in making data public and using it to create new businesses. The region is big enough for the systematic development of significant technologies and social innovations, and small enough to make it feasible in practice, too. This theme includes actions that support urban development, well-functioning everyday life, and the well-being of citizens. Areas covered by the theme include, for example, transportation, housing, urban planning, and healthcare.

url RIS3 2014-2020 https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FI1B1

PM-related Best Practices
Interregional Collaborations

B1MG - Beyond 1 Million Genomes Pan-European initiative to create genome-based health data infrastructure	https://b1mg-project.eu/
CoHeWe - Co-Created Health and Wellbeing	https://www.eura2014.fi/rrtiepa/projekti.php?projektikoodi=A74215
INTERVENE - AI and human genetics to develop tools for disease prevention, diagnosis, and personalised treatment	https://www.interveneproject.eu/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
PROPHET - a PeRsOnalized Prevention roadmap for the future HEalThcare	https://cordis.europa.eu/project/id/101057721

Project

Biobanks, Cohorts and genomic initiatives

Helsinki Biobank	https://www.hus.fi/en/about-hus/helsinkibiobank/Pages/default.aspx
Register of Congenital Malformations	https://www.orpha.net/consor/cgi-

Digital Innovation Hubs

Finnish Center for Artificial Intelligence (FCAI)	https://fcai.fi/
Forum Virium Helsinki	http://www.forumvirium.fi
Intelligent Industry ecosystem	https://intelligentindustry.dimecc.com/

Policy

FundingProgramme

PM-related Stakeholders

Aalto University		Research	https://www.aalto.fi/en	
CSC - Science Information Technology Center - Finnish information technology competence center			https://www.csc.fi/	
Helsinki-Uusimaa Regional Council / Uudenmaan liitto		Policy - Research & Innovation	https://www.uudenmaanliitto.fi/en	
Institute for Molecular Medicine Finland, University of Helsinki / Suomen molekyylilääketieteen instituutti	FIMM	Research	https://www.fimm.fi/	academic/research
Southern Finland Regional Cancer Center (Helsinki, South Karelia, Päijät-Häme and Kymenlaakso)	FICAN South	Research	https://ficansouth.fi/en/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

16/05/2023

European Regions Research and Innovation Network (ERRIN)

FI1C1   Varsinais-Suomi / Southwest Finland / Turku

Varsinais-Suomi is the most populous region of Finland, it also has the highest economic and innovation activity. The region has a strong base supported by a strong national policy in co-ordination.This has been based on the systemic approach to innovation policy at the national level since the early 1990s, which has emphasized the importance of interdependencies and collaboration among research organisations, universities, firms, and industries due to increasing importance of knowledge as a competitive asset. Varsinais-Suomi and the Turku region are Finland's strongest concentration in pharmaceutical research, health technology and, more broadly, Life Science, where long-term top-level research is combined with diversified business activities and commercialization and internationalization expertise. Pharmaceutical and health technology is one of the three priorities for smart specialization in Southwest Finland. At the forefront of the collaboration are drug development and diagnostics, health technology, and the provision of business, testing and support services. Encompassing the Southwest region of Finland, the area has a population of 467, 217. The region hosts top national expertise in life sciences and health technologies. The focus is especially in research and business operation in pharmaceutical and diagnostics industries, as well as functional food and materials technology. Half of the turnover of the Finnish medical industry is created in the Turku Region and the Health Turku cluster, coordinated by the Turku Science Park Ltd. comprises more than 100 companies as well as universities and research institutes and a hospital district.

As an example from the cluster, "Auria Clinical Informatics" is an EU-accredited Digital Innovation Hub and gathers information from many hospital districts to create a "360-degree" view of patient care, and represents the first fully operational bio-bank in Finland. As the strongest expertise cluster of the life science field in Finland, and a pioneer in business operations, Health Turku also runs a national Life Science Accelerator and organizes the largest annual drug development and diagnostics industry event- the HealthBIO seminar. Life sciences and health are spearheads of research also at the universities; productive and intensive cooperation between research and companies creates an atmosphere for innovation and opportunities for commercialization of products. Due to the global nature of the industry, it is important for the innovation communities to always look for international partnerships. Health Turku stakeholders are active in various networks such as the Council of European BioRegions (CEBR), Euro Bioimaging, ScanBalt BioRegion, and European Diagnostics Cluster Alliance (EDCA). Two of cluster's larger companies, Orion Corporation and PerkinElmer Inc have together with local universities and SMEs recently assembled a New Modalities Ecosystem supported by funding from Business Finland.   For PM-related competences see https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_7a29ebb2a86043f59b9c65eac515c54d.pdf

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	45
Total population (2019)	479341
Proportion older 65y % (2019)	23,70%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	
url RIS3 2021-2027	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FI1C
RIS3 priorities 2014-20	The region hosts top national expertise in life sciences and health technologies. The focus is especially in research and business operation in pharmaceutical and diagnostics industries, as

well as functional food and materials technology. Half of the turnover of Finnish medical industry is created in the Turku Region and the Health Turku cluster, coordinated by Turku Science Park Ltd. comprises more than 100 companies as well as universities and research institutes and a hospital district. As an example from the cluster, "Auria Clinical Informatics" is an EU-accredited Digital Innovation Hub and gathers information from many hospital districts to create a "360-degree" view of patient care and represents the first fully operational bio-bank in Finland. As the strongest expertise cluster of the life science field in Finland, and a pioneer in business operations, Health Turku also runs a national Life Science Accelerator and organizes the largest annual drug development and diagnostics industry event, the HealthBIO seminar. Life science and health are spearheads of research also at the universities. Productive and intensive cooperation between research and companies creates an atmosphere for innovation and opportunities for commercialization of products. Due to the global nature of the industry, it is important for the innovation communities to always look for international partnerships. Health Turku actors are active in various networks such as the Council of European BioRegions (CEBR), Euro Bioimaging, ScanBalt BioRegion, and European Diagnostics Cluster Alliance (EDCA). Two of cluster's larger companies, Orion Corporation and PerkinElmer Inc have together with local universities and SMEs recently assembled a New Modalities Ecosystem supported by funding from Business Finland. The new ecosystem is unique multidiscipline collaboration combining high level academic knowledge with drug discovery and development. This Ecosystem combines in a unique way high-level academic research with industrial drug research and development and its aim is to enable improved understanding of disease pathology related to the symptoms and disease progression, better treatments by applying large molecular drugs and diagnostic tools as well as digital wearable patient tools for disease symptom recording. There is continuous dialogue between sectors and actors to find new innovations and enable start-ups and large investment projects alike. The regional life sciences and health technologies targets are supported with networking and joint communications together with information on financing possibilities: allocating financing to the priority when possible and informing about possibilities in the EU programmes.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FI1C1

PM-related Best Practices

Interregional Collaborations

BIC - Biomarker Commercialization	https://bicguide.biomarker.nu/
Gen.era	https://www.generaproject.com/
MedIT - Information Technologies in Medicine	http://www.meditcluster.com/

Project

Auria Clinical Informatics - high quality data for researchers		https://www.auria.fi/tietopalvelu/en/index.html
FinnBrain		https://sites.utu.fi/finnbrain/en/
Life Science Accelerator		https://www.tuas.fi/en/research-and-development/projects/life-science-accelerator/
PRIVASA - Privacy Preserving AI for Synthetic and Anonymous Health Data		https://www.tuas.fi/en/research-and-development/projects/privasa-privacy-preserving-ai-synthetic-and-anonym/

SAPHIRe Regional Report

Biobanks, Cohorts and genomic initiatives

Auria biobank	https://www.auria.fi/en/

Digital Innovation Hubs

Auria Clinical Informatics (ACI)	https://www.auria.fi/tietopalvelu/en/index.php?lang=en
One Sea - Autonomous Maritime Ecosystem	https://oneseaecosystem.net

Policy

Southwest Finland Smart Specialization Action Plan 2019-2021	https://kumppanuusfoorumi.fi/wp-content/uploads/2020/04/Varsinais-Suomen-%C3%A4lykk%C3%A4%C3%A4n-erikoistumisen-toimintasuunnitelma-2019-2021-web.pdf

FundingProgramme

PM-related Stakeholders

Åbo Akademi University		Research	https://www.abo.fi/en/solutions-for-health/	
BioCity and Turku Bioscience		Research	https://www.biocity.turku.fi/	
Biocity Turku		Research	https://biocityturku.fi/	
Centre for Population Health Research	UTU	Research	https://sites.utu.fi/vaestotutkimuskeskus/en/	
Finnish Western Cancer Center (Southwest Finland , Satakunta and Ostrobothnia)	FICAN West	Research	https://ficanwest.fi/	
Health Campus Turku		Cluster	https://www.healthcampusturku.fi/	
Health Turku		Cluster	https://turkubusinessregion.com/healthturku/	
Innovation Ecosystem based on the Immune System	inFlames	Research	https://inflames.utu.fi/	
Regional Council of Southwest Finland / Varsinais-Suomen liitto		Policy - Research & Innovation	https://www.varsinais-suomi.fi/en/	
Regional State Administrative Agency for Southwestern Finland			https://avi.fi/en/southwestern-finland	national execution regional affairs

SAPHIRe Regional Report

Turku BioImaging		Infrastructure	https://www.bioimaging.fi/	research
Turku Center for Disease Modeling	TCDM	Research	https://www.tcdm.fi/	
Turku PET Centre		Research	https://turkupetcentre.fi/	
Turku Science Park		Infrastructure	https://www.turku.fi/en/turku-science-park	
Turku University (faculty of medicine)		Research	https://www.utu.fi/en/university/faculty-of-medicine	
Turku university hospital	TYKS	Hospital	https://www.vsshp.fi/en/Pages/default.aspx	
Turku University of Applied Sciences	TUAS	Research	https://www.tuas.fi/en/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); European Regions Research and Innovation Network (ERRIN); Other : ScanBalt

FI1C2

Kanta-Häme

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	33
Total population (2019)	170925
Proportion older 65y % (2019)	25,80%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FI1C2

RIS3 priorities 2014-20   creative combinations of nature, culture, wellbeing and sports with digital smart services offer new opportunities especially for SME's in the region.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FI1C2

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Central-Finland Cancer Centre - Tays Cancer Centre (Southern Ostrobothnia, Kanta-Häme and Pirkanmaa)	FICAN Mid	Research	https://www.ficanmid.fi/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

FI1C3   Päijät-Häme

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	39
Total population (2019)	199604
Proportion older 65y % (2019)	27,30%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FI1C3

RIS3 priorities 2014-20   Bio economy. well-being

url RIS3 2014-2020   https://paijat-hame.fi/en/smart-specialisation-and-innovation-environments/

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Päijät-Häme Joint Authority for Health and Wellbeing / Päijät-Hämeen Hyvinvointiyhtymä	PHHYKY	Policy - Healthcare	https://www.phhyky.fi/fi/etusivu/	
Southern Finland Regional Cancer Center (Helsinki, South Karelia, Päijät-Häme and Kymenlaakso)	FICAN South	Research	https://ficansouth.fi/en/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

16/05/2023   not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

FI1C4   **Kymenlaakso**

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	34
Total population (2019)	171167
Proportion older 65y % (2019)	28,60%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 Cyber security, gamification and digital applications in health & well-being

url RIS3 2021-2027   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FI1C4

RIS3 priorities 2014-20

url RIS3 2014-2020   https://www.kymenlaakso.fi/attachments/article/13452/Kymenlaakso's%20smart%20specialisation%20RIS3%20strategy%202016-2020.pdf

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Social and Health Services in Kymenlaakso / Kymenlaakson sosiaali- ja terveyspalvelujen kuntayhtymä	Kymsote	Policy - Healthcare	https://www.kymsote.fi/fi/in-english	
Southern Finland Regional Cancer Center (Helsinki, South Karelia, Päijät-Häme and Kymenlaakso)	FICAN South	Research	https://ficansouth.fi/en/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

FI1C5   Etelä-Karjala / South Karelia

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	24
Total population (2019)	127757
Proportion older 65y % (2019)	28,00%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20 Regional integrated healthcare system for a population of 130 000. New way to manage public healthcare (unique in Finland). Special activities in PHR, e-health, integrated home care, mobile services in rural areas. Special knowledge in Russian healthcare markets, joint ventures and invest in activities.

url RIS3 2014-2020 https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FI1C5

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

City of Imatra		Policy - Research & Innovation	https://www.imatra.fi/en	
City of Lappeenranta		Policy - Research & Innovation	https://www.lappeenranta.fi/en	
Regional Council of South Karelia / Etelä-Karjalan litto		Policy - Research & Innovation	https://www.ekarjala.fi/liitto/en/regional-council-of-south-karelia/	
South Karelia Social and Health Care District / Etelä-Karjalan sosiaali- ja terveyspiiri	Eksote	Policy - Healthcare	https://www.eksote.fi/Sivut/default.aspx	
Southern Finland Regional Cancer Center (Helsinki, South Karelia, Päijät-Häme and Kymenlaakso)	FICAN South	Research	https://ficansouth.fi/en/	
Wirma (support for entrepreneurship in Lappeenranta) / Lappeenrannan kaupunki		Policy - Research & Innovation	https://www.wirma.fi/en	

Memberships/Representations In EU/international projects or initiatives in the area of PM

16/05/2023

FI1D1   Etelä-Savo / South Savo

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	10
Total population (2019)	142335
Proportion older 65y % (2019)	31,70%
Mountain, remote, island?	Non-mountain, Northern Sparsely Populated Areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FI1D1

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

East Finland Cancer Center (Central Finland, North Savo, South Savo, North Karelia)	FINCAN East	Research	https://www.ficaneast.fi/	
Etelä-Savo Consortium of Social and Health Services / Etelä-Savon sosiaali- ja terveyspalvelujen kuntayhtymä	Essote	Policy - Healthcare	https://www.essote.fi/	
Southern Savonia Regional Council		Policy	https://www.esavo.fi/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

FI1D2 — Pohjois-Savo / North Savo

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	15
Total population (2019)	244236
Proportion older 65y % (2019)	25,90%
Mountain, remote, island?	Non-mountain, Northern Sparsely Populated Areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027   AI health and well being data

url RIS3 2021-2027   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FI1D2

RIS3 priorities 2014-20   ICT and sofware technologies for pharmaceutical industry. In the health sector, the greatest growth is expected from welfare technology. Kuopio has long been involved in pharmaceutical research, development and manufacturing. The implementation of new innovations utilizes software and information technology, data analysis and artificial intelligence, virtual reality and added reality, measurement and sensor technology, automation technology, information networks, logistics and marketing. A significant change in production methods is the development of local pharmaceuticals and other pharmaceutical logistics. By developing services and pharmaceuticals logistics, it enhances services and improves quality. New growth and entrepreneurship can be found in personal health tracking technology and tracking services.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FI1D2

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

DigiCenterNS	https://www.digicenterns.fi/en/home/

Policy

FundingProgramme

PM-related Stakeholders

East Finland Cancer Center (Central Finland, North Savo, South Savo, North Karelia)	FINCAN East	Research	https://www.ficaneast.fi/	
Kuopio Health		Cluster	https://kuopiohealth.fi/	
Northern Savonia Regional Council / Pohjois-Savon liitto		Policy	https://www.pohjois-savo.fi/en/home.html	

Memberships/Representations In EU/international projects or initiatives in the area of PM

FI1D3   **Pohjois-Karjala / North Karelia**

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	9
Total population (2019)	161211
Proportion older 65y % (2019)	27,30%
Mountain, remote, island?	Non-mountain, Northern Sparsely Populated Areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Technology and materials (photonics, broadband issues)

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FI1D3

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

16/05/2023

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

East Finland Cancer Center (Central Finland, North Savo, South Savo, North Karelia)	FINCAN East	Research	https://www.ficaneast.fi/	
North Karelia Association of Municipalities for Social and Health Services / Pohjois-Karjalan sosiaali- ja terveyspalvelujen kuntayhtymä	Siun sote	Policy - Healthcare	https://www.siunsote.fi/	
North Karelia Regional Council		Policy	https://www.pohjois-karjala.fi/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

FI1D4   **Kainuu**

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	3
Total population (2019)	72306
Proportion older 65y % (2019)	29,20%
Mountain, remote, island?	Non-mountain, Northern Sparsely Populated Areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 healthy food / health-care social services digital transformation and scaling up

url RIS3 2021-2027   https://kainuunliitto.fi/assets/uploads/2021/02/Kainuu-RIS3-Endorsed-in-December-2020.pdf

RIS3 priorities 2014-20   ICT and information systems. Measurement technology, data-centres, games and simulators. Health and well-being. Tourism, nutrition innovations, health, sport & fitness

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FI1D4

PM-related Best Practices

Interregional Collaborations

S3 ClusSport	https://s3platform-legacy.jrc.ec.europa.eu/sport

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Kajaani University of Applied Sciences	KAMK	Research	https://www.kamk.fi/en	
Large Unified Modern Infrastructure	LUMI	Infrastructure	https://www.lumi-supercomputer.eu/	
North Finland Cancer Center (Kainuu, Central Ostrobothnia, Northern Ostrobothnia, Lapland)	FICAN North	Research	https://www.ppshp.fi/Tutkimus-ja-opetus/Pohjoinen-syopakeskus/Sivut/Tietoa-meista.aspx	
Regional Council of Kainuu / Kainuun litto		Policy	https://www.kainuunliitto.fi/en	

Memberships/Representations In EU/international projects or initiatives in the area of PM

FI1D5   **Keski-Pohjanmaa / Central Ostrobothnia**

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	14
Total population (2019)	68158
Proportion older 65y % (2019)	23,80%
Mountain, remote, island?	Non-mountain, Northern Sparsely Populated Areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   ICT solutions for e-Health, e-Medicine, e-Learning. Virtual learning environments, high-tech health services and other ICT solutions

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FI1D5

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

North Finland Cancer Center (Kainuu, Central Ostrobothnia, Northern Ostrobothnia, Lapland)	FICAN North	Research	https://www.ppshp.fi/Tutkimus-ja-opetus/Pohjoinen-syopakeskus/Sivut/Tietoa-meista.aspx	
Regional Council of Keski-Pohjanmaa (Central Ostrobothnia) / Keski-Pohjanmaan liitto		Policy	http://www.keski-pohjanmaa.fi/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

FI1D6   Pohjois-Pohjanmaa / Northern Ostrobothnia

Northern Ostrobothnia / Pohjois-Pohjanmaa is a region of Finland with a population of 400,000. The regions' S3 priorities include a focus on clean technologies, including energy; mining, steel and processing industries, and wood processing; health and wellness technology; ICT and software applications for industry. For PM-related competences see https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_46824c3081fe40ef9fed5ba02ff6ecc7.pdf

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	11
Total population (2019)	412830
Proportion older 65y % (2019)	20,20%
Mountain, remote, island?	Non-mountain, Northern Sparsely Populated Areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	Health and well-being sector • preventive healthcare • sensors and meters • safe utilisation of data.
url RIS3 2021-2027	https://www.pohjois-pohjanmaa.fi/wp-content/uploads/2021/02/A%CC%88E_strategia2021_2024.pdf
RIS3 priorities 2014-20	Health and Wellness Technology
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FI1D6

PM-related Best Practices

Interregional Collaborations

CoHeWe - Co-Created Health and Wellbeing	https://www.eura2014.fi/rrtiepa/projekti.php?projektikoodi=A74215
EUCAN-Connect	https://eucanconnect.com/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
S3P4PM - Smart Specialisation Platform for Personalised Medicine	https://s3platform.jrc.ec.europa.eu/personalised-medicine
Vanguard Initiative Smart Health Pilot Project Demo Case We are - Interregional Personal Data Management Platform	https://vito.be/en/news/flanders-invests-platform-secure-data-sharing

Project

Body Area Emulator - Infrastructure related to human measurement and development of measurement technologies		https://www.eura2014.fi/rrtiepa/projekti.php?projektikoodi=A74651

SAPHIRe Regional Report

Biobanks, Cohorts and genomic initiatives

Biobank Borealis	https://www.ppshp.fi/Tutkimus-ja-opetus/Biopankki/Pages/Biobank-Borealis-

Digital Innovation Hubs

5G Test Network Finland (5GTNF)	http://5gtnf.fi/
Arctic Drone Labs	https://www.arcticdronelabs.com
DigiCenterNS	https://www.digicenterns.fi/en/home/
Good Life for Finland	https://www.vttresearch.com/
OuluHealth	http://ouluhealth.fi
PrintoCent	http://www.printocent.net
Rural Industry DIH	https://ruralindustries.eu/
Super IoT	http://www.superiot.fi

Policy

FundingProgramme

PM-related Stakeholders

Biocenter Oulu Research Infrastructure Services		Infrastructure	https://www.oulu.fi/biocenter/core-facilities	
Council of Oulu Region / Pohjois-Pohjanmaan liitto		Policy - Research & Innovation	https://www.pohjois-pohjanmaa.fi/index.php?315	
DigiHealth Hub		Cluster	https://www.oulu.fi/cht/digihealthhub	
North Finland Cancer Center (Kainuu, Central Ostrobothnia, Northern Ostrobothnia, Lapland)	FICAN North	Research	https://www.ppshp.fi/Tutkimus-ja-opetus/Pohjoinen-syopakeskus/Sivut/Tietoa-meista.aspx	
Northern Ostrobothnia Centre for Economic Development	ELY Center		https://www.ely-keskus.fi/ely-pohjois-pohjanmaa	regional execution business

Oulu Innovation Alliance	OIA	Cluster	https://www.businessoulu.com/en/frontpage-old/en/company-networks-2/oulu-innovation-alliance	
OuluHealth		Cluster	https://ouluhealth.fi/	
Regional State Administrative Agency for Northern Finland			https://avi.fi/en/northern-finland	regional
University of Oulu		Research	https://www.oulu.fi/en	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

FI1D7   Lappi / Lapland

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	2
Total population (2019)	177161
Proportion older 65y % (2019)	26,00%
Mountain, remote, island?	Non-mountain, Northern Sparsely Populated Areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Regional ecosystem as the base for internationalisation. Interregional collaboration developing the whole region, Renewing regional ecosystem supporting the economical growth, Clusters strengthening the regional value chains development.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FI1D7

PM-related Best Practices
Interregional Collaborations

S3 ClusSport	https://s3platform-legacy.jrc.ec.europa.eu/sport

Project

Biobanks, Cohorts and genomic initiatives

Arctic Biobank	https://www.oulu.fi/medicine/node/207208

SAPHIRe Regional Report

16/05/2023

Digital Innovation Hubs

Arctic Development Environments Cluster	https://ardico.fi/portal

Policy

FundingProgramme

PM-related Stakeholders

Lapland Regional Council		Policy	https://www.lapinliitto.fi/	
North Finland Cancer Center (Kainuu, Central Ostrobothnia, Northern Ostrobothnia, Lapland)	FICAN North	Research	https://www.ppshp.fi/Tutkimus-ja-opetus/Pohjoinen-syopakeskus/Sivut/Tietoa-meista.aspx	

Memberships/Representations In EU/international projects or initiatives in the area of PM

FR   France (National level)

Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_fr_english.pdf

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	106
Total population (2019)	67012883
Proportion older 65y % (2019)	20,10%
Mountain, remote, island?	Mix of mountain & non-mountain & islands

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20

url RIS3 2014-2020

PM-related Best Practices

Interregional Collaborations

B1MG - Beyond 1 Million Genomes Pan-European initiative to create genome-based health data infrastructure	https://b1mg-project.eu/
CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
Clinical trial of autologous adipose-derived mesenchymal stromal cells (ASC) in the treatment of mild to moderate osteoarthritis	https://cordis.europa.eu/project/id/643809
EATRIS - European infrastructure for translational medicinE	https://eatris.eu/
ECRIN - European Clinical Research Infrastructure Network	https://ecrin.org/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
EOSC4Cancer - European Open Science Cloud for Cancer	https://eosc4cancer.eu/
ERA CoBioTech	https://www.cobiotech.eu/home
ERA-NET NEURON Cofund2 togther for brain research	https://www.neuron-eranet.eu/
ERA-NET TRANSCAN-2 Aligning national/regional translational cancer research programmes and activities	https://www.era-learn.eu/network-information/networks/transcan-2
ERA-NET TRANSCAN-3	https://www.era-learn.eu/network-information/networks/transcan-3
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/

EUCANCan: a federated network of aligned and interoperable infrastructures for the homogeneous analysis, management and sharing of genomic oncology data for Personalized Medicine	https://cordis.europa.eu/project/id/825835
EuroNanoMed III (2016-2021) the new ERA-Net Cofund Action on Nanomedicine	https://euronanomed.net/
HealthData@EU Pilot POC	https://www.ehds2pilot.eu/
imSAVAR	https://imsavar.eu/
KATY - AI-Empowered Personalised Medicine System to Improve Cancer Treatments	https://katy-project.eu/
MIRRI - Microbial Resource Research Infrastructure	https://www.mirri.org/
MyPeBS - My Personal Breast Screening	https://www.mypebs.eu/
SPIDIA for Personalized Medicine - Standardisation of generic Pre-analytical procedures for In-vitro DIAgnostics for Personalized Medicine	https://cordis.europa.eu/project/id/733112
TEHDAS - Towards European Health Data Space	https://tehdas.eu/
TO-REACH Transferring Innovations in Health Systems	https://to-reach.eu/
ULTRAPLACAD - ULTRAsensitive PLAsmonic devices for early CAncer Diagnosis	https://ultraplacad.eu/
UNCAN - a European Initiative to UNderstand CANcer – Drafting a Blueprint for European Cancer Research	https://uncan.eu/

Project

AI for health		https://www.aiforhealth.fr/
Expérimentations de Télémédecine pour l'Amélioration des Parcours en Santé	ETAPeS	https://solidarites-sante.gouv.fr/soins-et-maladies/prises-en-charge-specialisees/telesante/article/la-telesurveillance-etapes
FRench Regional Origins in Genetics for Health	FROGH	https://anr.fr/Project-ANR-16-CE12-0033
Health Data Hub		https://www.health-data-hub.fr/
Population Genomic Diversity of France	POPGEN	https://clinicaltrials.gov/ct2/show/NCT04183023
Programme "Intelligence Artificielle et Santé"		https://ariis.fr/nos-projets/programme-intelligence-artificielle-sante/

Biobanks, Cohorts and genomic initiatives

CONSTANCES cohort	https://www.constances.fr/index_EN.php
French National Research Infrastructure for Biological Imaging	https://france-bioimaging.org/
Observer Country European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-

Digital Innovation Hubs

Policy

"KET study" Technologies Clés 2020 Préparer l'industrie du futur	https://www.entreprises.gouv.fr/files/files/directions_services/politique-et-enjeux/innovation/technologies-cles-2020/technologies-cles-2020.pdf
AI for Humanity	https://www.aiforhumanity.fr/
France 2030 : Objective 7: Produce 20 biomedicines against cancers, chronic diseases including those linked to age and create the medical devices of tomorrow	https://www.elysee.fr/emmanuel-macron/2021/10/12/presentation-du-plan-france-2030
Innovation Santé 2030 : Faire de la France la 1re nation européenne innovante et souveraine en santé - Making France the leading European nation innovative and sovereign in health	https://www.gouvernement.fr/sites/default/files/contenu/piece-jointe/2021/06/sante_innov30_a4_07_vdefdp.pdf
Ma Santé 2022	https://solidarites-sante.gouv.fr/systeme-de-sante-et-medico-social/masante2022/
Plan France Médecine Génomique 2025	https://www.aviesan.fr/aviesan/accueil/toute-l-actualite/plan-france-medecine-genomique-2025
Plan HealthTech	https://web-assets.bcg.com/e2/f8/98cf8d5140efa96df7166a49a52c/rapport-plan-healthtech-13avril2021.pdf

FundingProgramme

GENDER-NET Plus	http://gender-net-plus.eu/about/what-is-gender-net-plus/
Generic Call for Proposals (AAPG)	http://www.agence-nationale-recherche.fr/

PM-related Stakeholders

Agence Nationale de la Recherche	ANR		https://anr.fr/	
Center of Reference, Innovation, eXpertise and Transfer	CRefIX	Policy	https://www.crefix.fr/	
Data Analyzer Collector / Collecteur analyseur de données	CAD	Policy	https://pfmg2025.aviesan.fr/le-plan/collecteur-analyseur-de-donnees-cad/	
Digital Health Agency / Agence Numérique Santé	ANS		https://esante.gouv.fr/	national execution
ELIXIR France		Infrastructure	https://elixir-europe.org/about-us/who-we-are/nodes/france	
France Biotech		Cluster	http://www.france-biotech.fr/	
France Génomique		Infrastructure	https://www.france-genomique.org/?lang=en	
French Agency for the Safety of Medicines and Health Products	ANSM		https://ansm.sante.fr/	
French National Alliance for Life Sciences and Health / Alliance Nationale pour les sciences de la vie et de la santé	aviesan Partenariats industriels Aviesan	Cluster	https://aviesan.fr/	
Genoscope - French National Sequencing Center		Research	https://jacob.cea.fr/drf/ifrancoisjacob/english/Pages/Departments/Genoscope.aspx	
Haute Autorité de Santé	HAS		https://www.has-sante.fr/	

Health Industry Alliance for Research and Innovation / Alliance pour la Recherche et l'Innovation des Industries de la Santé	ARIIS	Cluster	https://ariis.fr/	
HealthTech For Care		Cluster	http://htfc-eu.com/	
IAR - French Bioeconomy Pole / Pôle de la Bioéconomie français		Cluster	https://www.iar-pole.com/	
Institut Curie		Research	https://curie.fr/	
Institut de Génétique Humaine	IGH	Research	https://www.igh.cnrs.fr/en	
Institut Pasteur		Research	https://www.pasteur.fr/fr	
Mabdesign The French Immunotherapy Network		Cluster	https://www.mabdesign.fr/en/	
Ministry of Higher Education, Research and Innovation / Ministère de l'Enseignement supérieur, de la Recherche et de l'Innovation	MESR/DGRI-DAEI	Policy - Research & Innovation	https://www.enseignementsup-recherche.gouv.fr/	
Ministry of Solidarity and Health / Ministère des Solidarités et de la Santé		Policy - Healthcare	https://solidarites-sante.gouv.fr/	
Ministry of the Economy, Finance and Recovery / Ministère de l'Économie, des Finances et de la Relance		Policy	https://www.economie.gouv.fr/	
Multi-Organism Cancer Thematic Institute / Institut Thématique Multi-Organisme Cancer	ITMO Cancer	Research	https://aviesan.fr/aviesan/accueil/menu-header/instituts-thematiques-multi-organismes/cancer	
National Cancer Institute / Institut national du cancer	INCa		https://www.e-cancer.fr/	
National Human Genome Research Center at French Atomic Energy and Alternative Energies Commission / Commissariat à l'énergie atomique et aux énergies	CEA CNRGH	Research	https://www.cea.fr/Pages/domaines-recherche/sante-sciences-du-vivant.aspx	
National Institute of Health and Medical Research / Institut National de la Santé et de la Recherche Médicale	INSERM	Research	https://www.inserm.fr/	
National research institute in digital sciences and technologies / Institut national de recherche en sciences et technologies	INRIA	Research	https://www.inria.fr/fr	
NetSarc-ResOs French clinical reference network / NetSarc-ResOs Réseaux de référence Cliniques Sarcomes - GIST - Desmoïdes - Tumeurs osseuses rares		Research	https://netsarc.sarcomabcb.org/	
Scientific Research National Center / Centre national de la recherche scientifique	CNRS	Funding	http://www.cnrs.fr/	
SNITEM National Union of the Medical Technology Industry Syndicat national de l'industrie des technologies médicales		Cluster	https://www.snitem.fr/	
Unicancer		Research	https://www.unicancer.fr/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

FR1   Île de France

Innovation Performance group (2021)	Innovation leader -
Population Density (per km² (2019)	1027
Total population (2019)	12244807
Proportion older 65y % (2019)	15,11%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   New Medical Devices. Medical devices to improve patients care, diagnosis and treatment, and autonomy notably through robotics and photonics applications. Complex Systems Engineering and Software. Applications for health supported through hardware and software research. Digital Creation. Applied for health supported through research in imaging, sound and IT.

url RIS3 2014-2020   http://lab-innovation.cget.gouv.fr/sites/default/files/S3%20-%20Ile-de-France_0.pdf

PM-related Best Practices

Interregional Collaborations

CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
Clinical trial of autologous adipose-derived mesenchymal stromal cells (ASC) in the treatment of mild to moderate osteoarthritis	https://cordis.europa.eu/project/id/643809
Codex4SMEs (Companion diagnostics expedited for small and medium-sized businesses)	https://www.nweurope.eu/projects/project-search/codex4smes-companion-diagnostics-expedited-for-smes/
DIGICORE - DIGital Institute for Cancer Outcomes Research	
EUCANCan: a federated network of aligned and interoperable infrastructures for the homogeneous analysis, management and sharing of genomic oncology data for Personalized Medicine	https://cordis.europa.eu/project/id/825835
EUCAN-Connect	https://eucanconnect.com/
EurOPDX	https://www.europdx.eu/
Gen.era	https://www.generaproject.com/
GenoMed4All	https://genomed4all.eu/

IndividualizedPaediatricCure: Cloud-based virtual-patient models for precision paediatric oncology	https://cordis.europa.eu/project/id/826121
iNEXT-Discovery Project - Infrastructure for transnational access and discovery in structural biology	https://cordis.europa.eu/project/id/871037
INNAXE - Inclusive & aligned INNovation Agendas across Europe	https://cordis.europa.eu/project/id/101070847
LifeTime	https://lifetime-initiative.eu/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
MyPeBS - My Personal Breast Screening	https://www.mypebs.eu/
OncoTrack - Methods for systematic next generation oncology biomarker development	http://www.oncotrack.eu/
PERMIT - PERsonalised Medicine Trials	https://permit-eu.org/
PROPHET - a PeRsOnalized Prevention roadmap for the future HEalThcare	https://cordis.europa.eu/project/id/101057721
Restore	https://www.restore-horizon.eu/
SYNCHROS - SYNergies for Cohorts in Health: integrating the ROle of all Stakeholders	https://synchros.eu/

Project

Biobanks, Cohorts and genomic initiatives

Escort-Hu: European sickle cell disease cohort- hydroxyurea	https://www.orpha.net/consor/cgi-
French National Registry for Rare Diseases (BNDMR)	https://www.orpha.net/consor/cgi-
French sickle cell anemia registry	https://www.orpha.net/consor/cgi-
NF-France: genotype/phenotype database on neurofibromatosis 1	https://www.orpha.net/consor/cgi-
Paris registry of congenital anomalies - contributes to the EUROCAT network	https://www.orpha.net/consor/cgi-
RaDiCo-MARFAN: National cohort on Marfan syndrome and apparent diseases	https://www.orpha.net/consor/cgi-
The Tissue Nonspecific Alkaline Phosphatase (ALPL) Gene Mutations Database	https://www.orpha.net/consor/cgi-
UMD LMNA (Lamin A/C) mutations database	https://www.orpha.net/consor/cgi-

Digital Innovation Hubs

Cap Digital	http://www.capdigital.com/
DIGIHALL	http://www.digihall.fr
France AI Hub	http://www.hub-franceia.fr
ICM - Brain and Spine institute	http://icm-institute.org/fr/mission/
Interactive Robotics Laboratory of CEA LIST	http://www-list.cea.fr/en/technological-research/research-programmes/advanced-manufacturing/collaborative-robotics

Systematic Paris Region	http://www.systematic-paris-region.org/
TeraLab: Big Data and AI Platform for Research, Innovation, and Education	https://www.teralab-datascience.fr/

Policy

FundingProgramme

PM-related Stakeholders

Biocitech		Infrastructure	https://biocitech.paris/en/home/	
Cancéropôle Île-de-France		Research	https://www.canceropole-idf.fr/en/	
Digital Medical Hub	DMH	Cluster	http://recherche-hupnvs.aphp.fr/digital-medical-hub/	
Future4Care			https://future4care.com/en	Business accelerator/incubator
Genopole GIP		Cluster	https://genopole.fr/?lang=fr	
Gustave Roussy Cancer Campus		Research	https://www.gustaveroussy.fr/en	
Hôpital Tenon AP-HP		Hospital	http://tenon.aphp.fr/specialitesmedicales/?pole=605&shortcode_id=8a1f16cc500e575ab05503abcda0135f	
Medicen Paris Region, regional bio-cluster		Cluster	https://medicen.org/fr/	
PariSantéCampus			https://parisantecampus.fr/	eHealth ecosystem
Région Île-de-France		Policy	https://www.iledefrance.fr/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); European Regions Research and Innovation Network (ERRIN)

FRB   **Centre-Val de Loire**

Innovation Performance group (2021)	Moderate innovator
Population Density (per km² (2019)	65
Total population (2019)	2565258
Proportion older 65y % (2019)	22,67%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Biotechnologies and Services for Health and Cosmetic Industries. Innovative activities for improved supply chain network among regional actors.

url RIS3 2014-2020

PM-related Best Practices
Interregional Collaborations

Boost4Health	https://www.boost4health.eu/
CE4BIG – Cluster Excellence for Business Innovation and Growth in the Health Sector	http://ce4big.lifescience.pl/
ELISE - European LIfe Science Ecosystems	https://www.interregeurope.eu/elise/

Project

Biobanks, Cohorts and genomic initiatives

NF-France: genotype/phenotype database on neurofibromatosis 1	https://www.orpha.net/consor/cgi-

SAPHIRe Regional Report

Digital Innovation Hubs

Centre Val de Loire Digital Innovation Hub	https://www.devup-centrevaldeloire.fr/dih

Policy

FundingProgramme

PM-related Stakeholders

Atlanpole Biotherapies regional bio-cluster		Cluster	https://www.atlanpolebiotherapies.eu/	
Cancéropôle Grand Ouest		Research	http://www.canceropole-grandouest.com/index.php/accueil.html	
Polepharma		Cluster	https://www.polepharma.com/	
Région Centre-Val de Loire		Policy	http://www.europeocentre-valdeloire.eu/contact/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

FRC   **Bourgogne-Franche-Comté**

Innovation Performance group (2021)	Moderate innovator
Population Density (per km² (2019)	59
Total population (2019)	2793333
Proportion older 65y % (2019)	23,28%
Mountain, remote, island?	non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 Personalised and integrated healthcare

url RIS3 2021-2027   https://www.bourgognefranchecomte.fr/sites/default/files/2021-08/RIS3_Synthese_VA.pdf

RIS3 priorities 2014-20   e-health, Medical Imagery. Wound-Care technologies,Drug Delivery technologies, preventive medicine, biomedical prevention and treatments, Advanced Materials and Production processes for secured applications. relates to nanotech. ICT for societal applications. Interactive simulation in real situations, combination of geographical software and tools, 3D modelisation, for safety and health, augmented reality applications. nanomaterials.

url RIS3 2014-2020

PM-related Best Practices
Interregional Collaborations

Medtech4Europe	https://www.interregeurope.eu/medtech4europe/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Cancéropôle Est		Research	https://www.canceropole-est.org/	
Pôle BFCare		Cluster	https://pole-bfcare.com/	regional execution

Memberships/Representations In EU/international projects or initiatives in the area of PM

FRD   Normandie

Innovation Performance group (2021)	Moderate innovator -
Population Density (per km² (2019)	111
Total population (2019)	3313340
Proportion older 65y % (2019)	21,71%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 5P (personalised, preventive, participative, predictive, proven based) medicine

url RIS3 2021-2027   http://europeennormandieeu.srv15.createurdimage.fr/sites/default/files/2021-08/2021-2027%20RIS3%20%20-%20Complet%20VF%2025%2002%2021.pdf

RIS3 priorities 2014-20   Innovation in Bio medical technologies. Nuclear applications in health: instrumentation and dosimetry, development and manufacture of equipment for particle accelerators, development and manufacture of radiopharmaceuticals, image analysis, clinical trial evaluation and radiation protection, electronics and electrical engineering, even dismantling, with a very great feedback on the work under ionizing radiation.· Telepresence and videophony · Experimentation in neuroscience. New Technologies in Chemistry and Biology applied to Health and Wellness. Including biomedical technologies, health safety, organic synthesis for diagnostic and therapeutic innovation. Equine health : -the diagnosis: biomarkers of osteoarthritis, molecular diagnosis of infectious pathologies -treatment : regenerative medicine, fight against bioresistances (antimicrobial peptides) - Prevention: development of technologies applicable to the tracks of human athletes; to improve vaccines against influenza and rhinopneumonia; pest prophylaxis - genomics, personalized medicine and selection tools to optimize knowledge about equine nutrition and reproduction and which is also an important performance factor. New Smart and sutainable materials. Materials embedded in various sectors such as transport (aeronautics, automobile), energy, health and electronics. Also in fundamental research. For the two axes engineering and conception of advanced materials and performant materials and eco-development.

url RIS3 2014-2020

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

E-Secure Transactions Cluster - TES	https://www.pole-tes.com/
Mov'eo	https://pole-moveo.org/en/services-booster-croissance/sme-smi-startups/

Policy

FundingProgramme

PM-related Stakeholders

Campus Santé Rouen Normandie			https://campus-sante-rouen.fr/	
Cancéropôle Nord-Ouest		Research	https://www.canceropole-nordouest.org/	
Normandy Pôle TES E-Santé - pôle de compétivité en innovation technologique		Cluster	https://www.pole-tes.com/	
Polepharma		Cluster	https://www.polepharma.com/	
Région Normandie		Policy	https://www.normandie.fr/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

16/05/2023

European Regions Research and Innovation Network (ERRIN)

16/05/2023

FRE   Hauts-de-France

Innovation Performance group (2021)	Moderate innovator
Population Density (per km² (2019)	188
Total population (2019)	5977437
Proportion older 65y % (2019)	18,15%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 precision health

url RIS3 2021-2027   https://i-trans.org/smart-specialisation-strategy-s3-hauts-de-france-2021-2027/

RIS3 priorities 2014-20   Health and Nutrition. Health Technology and Ageing, Medical Technology and Patient Caring, Sustainable food and nutrition systems - Future feeding and aquatic products - Improving Human health and pathologies prevention (obesity, diabetes, cardiovascular diseases). Information and Communication Technologies (ICT) & Internet of Things. Robotics, Security software, Internet of Things, Mobile applications, Man-Machinery Interface, Cloud Computing, Big data, Human-centered computing. Reconstructive Surgery and Healthcare Technologies. Innovative activities developed through medical and morphological imaging, surgery and robotics, bio-therapy and transplantation, speech therapy and language centres.

url RIS3 2014-2020

PM-related Best Practices
Interregional Collaborations

Boost4Health	https://www.boost4health.eu/
CONNECTINGHEALTH - CONNECTing the dots withIN diGItal HEALTH Innovation Ecosystems	https://cordis.europa.eu/project/id/101070756
MedIT - Information Technologies in Medicine	http://www.meditcluster.com/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

CITC-EuraRFID	http://www.iotcluster.fr
Faubourg Numérique	http://faubourgnumerique.com/

Policy

FundingProgramme

PM-related Stakeholders

Cancéropôle Nord-Ouest		Research	https://www.canceropole-nordouest.org/	
EuraMaterials		Cluster	https://euramaterials.eu/	
EuraSanté		Cluster	https://www.eurasante.com/	
Lille Interdisciplinary Cancer Research Institute / Institut de recherches interdisciplinaires en cancer	ONCOLille	Research	https://www.oncolille.eu/	
Nutrition Health Longevity Cluster	Clubster NHL NSL	Cluster	https://www.nhl-cluster.com/	
Ombelliscience		Cluster	https://ombelliscience.fr/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); European Regions Research and Innovation Network (ERRIN)

FRF   **Grand Est**

Grand-Est is the merge of different previous regions (Lorraine FR41, Alsace FR42 and Franche-Comté FR43) and is located in eastern France with a population of 5,5 million. The Alsace regions' S3 priorities for 2014-2020 in Health and Well-being include: e-health (prevention, autodiagnostic, tele-consultation and remote monitoring); ICT related aspects of e-health; New drugs (biotech, biomarkers, nanomaterial, genomics, chemistry and biology); Robotics & medical & surgical care (non-invasive mini surgery, micro-robots for the exploration of the body, tele-robotics and re-education, social robots for diagnosis and cognitive & emotional stimulation, robotics software); Tools for assisting diagnosis based on medical imagery (and ultra-sound); Medical implants (passive such as prothesis and active such as pacemakers); Prevention through nutrition. For Lorraine S3 priorities for 2014-2020 : Prevention and diagnosis through the development of new technologies, medical imaging and advanced medical devices, and products and services necessary for the home care and telemedicine of elderly and disabled people. For Franche-Comté : Interactive simulation in real situations, combination of geographical software and tools, 3D modelisation, for safety and health, augmented reality applications

The region would like to collaborate with: USA, Germany, Belgium, UK

Innovation Performance group (2021)	Moderate innovator +
Population Density (per km² (2019)	97
Total population (2019)	5525291
Proportion older 65y % (2019)	20,34%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Development of a chain of activities in the health sector integrating prevention, early diagnosis and treatment. Prevention and diagnosis through the development of new technologies, medical imaging and advanced medical devices, and products and services necessary for the home care and telemedicine of elderly and disabled people.Healthcare and Assistance for Ageeing Population. Innovative activities involving intelligent networks of actors, intelligent building for healthcare and improved medical systems. 1/ e-health (prevention, autodiagnostic, tele-consultation and remote monitoring), ICT related aspects of e-health. 2) New drugs (biotech, biomarkers, nanomaterial, genomics, chemistry and biology), 3) robotics & medical & surgical care (non-invasive mini surgery, micro-robots for the exploration of the body, tele-robotics and reeducation, social robots for diagnosis and cognitive & emotional stimulation, robotics software) 4) tools for assisting diagnosis based on medical imagery (and ultra-sound) 5) Medical implants (passive such as prothesis and active such as pacemakers) 6) prevention through nutrition

url RIS3 2014-2020

PM-related Best Practices

Interregional Collaborations

iNEXT-Discovery Project - Infrastructure for transnational access and discovery in structural biology	https://cordis.europa.eu/project/id/871037
PERSONALIS - Personalized medical platform	https://www.interreg-oberrhein.eu/projet/personalis-personalisierte-medizinplattform-fur-patienten-mit-autoimmunkrankheiten/?pk_vid=3daa86e0083363221607006156983d3c

Project

Master New Technologies and Management of Innovative Projects in Health (N'Tech Santé) - Master Nouvelles Technologies et Management de Projets Innovants en Santé (N'Tech Santé)		https://www.biovalley-france.com/fr/espace-presse/luniversite-de-strasbourg-elabore-deux-nouveaux-master/
PRIeSM : Creation of a regional e-health innovation platform - Création d'une plateforme régionale d'innovation en e-santé		https://europe-en-alsace.eu/projet/plateforme-esante/
Tomorrow's health territories - Territoire de Santé de Demain		https://www.medtech-strasbourg.eu/fr/territoires-de-sante-de-demain-appel-a-candidater/

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

Stratégie Santé Grand Est Projet Régional de Santé 2018-2028	https://www.grand-est.ars.sante.fr/media/50136/download

FundingProgramme

PM-related Stakeholders

BioValley France		Cluster	https://www.biovalley-france.com/	
Cancéropôle Est		Research	https://www.canceropole-est.org/	
Company for the Acceleration of Technology Transfer / Société d'Accélération du Transfert de Technologie	SATT Conectus		https://www.conectus.fr/	techtransfer Transfert de technologies et collaborations public-privé de recherche alsaciens
Grand Est innovation agency / Agence Régionale d'Innovation		Innovation Agency	https://www.grandenov.fr/	
Innovative start-up incubator / Sciences, Entreprise et Marché, Incubateur	SEMIA		https://www.startup-semia.com/	incabutor
Living Lab ActivAgeing	LL2A	Research	https://recherche.utt.fr/platforms/living-lab-activageing	
Région Grand Est		Policy - Research & Innovation	https://www.grandest.fr/	regional innovation policy
Regional Health Agency /Agence Régionale de Santé Grand Est		Policy	https://www.grand-est.ars.sante.fr/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN); Other : ESTHER

SAPHIRe Regional Report

FRG   Pays de la Loire

Innovation Performance group (2021)	Moderate innovator +
Population Density (per km² (2019)	118
Total population (2019)	3787400
Proportion older 65y % (2019)	20,86%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Food and bio-resources. Agri-food, health and nutrition, Information and Communication Technologies ICT - Electronics. components, advanced materials, advanced manufacturing systems

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FR51

PM-related Best Practices
Interregional Collaborations

Boost4Health	https://www.boost4health.eu/
CE4BIG – Cluster Excellence for Business Innovation and Growth in the Health Sector	http://ce4big.lifescience.pl/
DIGICORE - DIGital Institute for Cancer Outcomes Research	
Vanguard Initiative Smart Health Pilot Project	https://www.s3vanguardinitiative.eu/pilots/smart-health

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Atlanpole	http://www.atlanpole.fr
Pôle EMC2 Competitiveness cluster for innovation in production technologies	http://www.pole-emc2.fr/

Policy

Stratégie Régionale Enseignement Supérieur, Recherche et Innovation	https://www.paysdelaloire.fr/sites/default/files/2021-03/desr-2021-strategie-esri_0.pdf

FundingProgramme

PM-related Stakeholders

Angers Technopole			https://www.angerstechnopole.com/	
Atlanpole Biotherapies regional bio-cluster		Cluster	https://www.atlanpolebiotherapies.eu/	
BiogenOuest		Cluster	https://www.biogenouest.org/en/	interregional network of biotechnology platforms in life sciences and the environment. It federates research units in the West and coordinates 34 technology platforms open to the entire scientific community (public and private)
Cancéropôle Grand Ouest		Research	http://www.canceropole-grandouest.com/index.php/accueil.html	
Gerontopole		Policy	https://www.gerontopole-paysdelaloire.fr/	
Région Pays de la Loire		Policy	https://www.paysdelaloire.fr/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); European Regions Research and Innovation Network (ERRIN)

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); European Regions Research and Innovation Network (ERRIN)

16/05/2023   not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

FRH   **Bretagne**

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	122
Total population (2019)	3333720
Proportion older 65y % (2019)	22,42%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 Health and welfare or well-being economy for a better quality of life / Innovative (bio)-therapies / Prevention – nutrition – environment - work - sport - behaviour / health technologies for patient monitoring or technologies for health including innovative medical devices and e-health solutions /development of new molecules and biomaterials, and the identification of biomarkers in precision medicine

url RIS3 2021-2027   https://msca-bienvenue.bretagne.bzh/app/uploads/2021/02/S3_Smart_Specialisation_Strategy_RB_2021-2027.pdf

RIS3 priorities 2014-20   better quality of life (a) Prevention – health - well-being, b) New therapeutic approaches combining genetics, biomarkers and biomolecules, c) Medical, diagnostic and therapeutic technologies and e-health). Technologies for the digital society. (a) Future Internet: communicating objects, cloud computing and big data,

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FR52

PM-related Best Practices

Interregional Collaborations

Boost4Health	https://www.boost4health.eu/
CE4BIG – Cluster Excellence for Business Innovation and Growth in the Health Sector	http://ce4big.lifescience.pl/
INCENTIVE - Innovation and technology to improve customer-oriented healthcare services	https://www.interregeurope.eu/intencive/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

7TB - 7 Technopoles de Bretagne	http://7technopoles-bretagne.bzh/
DIH Bretagne (Health economy: Agrifood & digital economy 3 of the 5 keysectors)	https://dih-bretagne.eu/en/
ID2Santé - Innovation and Development of the Health sector in Bretagne	http://www.id2sante.com/index.php?rub=who_we_are_
Images et Réseaux	http://www.images-et-reseaux.com/fr
Le Pool French Tech Rennes St Malo	http://lafrenchtech-rennes.fr/
Photonics Bretagne	http://www.photonics-bretagne.com

Policy

FundingProgramme

PM-related Stakeholders

Atlanpole Biotherapies regional bio-cluster		Cluster	https://www.atlanpolebiotherapies.eu/	
BiogenOuest		Cluster	https://www.biogenouest.org/en/	interregional network of biotechnology platforms in life sciences and the environment. It federates research units in the West and coordinates 34 technology platforms open to the entire scientific community (public and private)
Biotech Santé Bretagne		Cluster	https://www.biotech-sante-bretagne.fr/	

Cancéropôle Grand Ouest		Research	http://www.canceropole-grandouest.com/index.php/accueil.html	
GCS (Groupements de Coopération Sanitaire) e-Santé Bretagne			https://www.esante-bretagne.fr/	
ID2Santé		Policy	https://www.id2sante.fr/	
Strasbourg Institute for Image-Guided Surgery - Institut de chirurgie guidée par l'Image	IHU Strasbourg	Research	https://www.ihu-strasbourg.eu/	valuation education care

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); European Regions Research and Innovation Network (ERRIN)

FRI   **Nouvelle-Aquitaine**

Innovation Performance group (2021)	Moderate innovator +
Population Density (per km² (2019)	71
Total population (2019)	5986318
Proportion older 65y % (2019)	24,00%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Health and Well-being. smart principles for pharmaceuticals and cosmetics use, e-health, better care. Integrated Care pathway and Patient Assistance techniques. Respond to the increased needs of an ageing population through adapted ICTs health system. Environment and health. identify, analyze and reduce the impact of environmental factors harmful for human health. Laser, Photonics, Medical Imagery. Industrial and research excellence in laser, photonics and medical imagery. biotechnology for human and animal health.

url RIS3 2014-2020

PM-related Best Practices
Interregional Collaborations

BigDATia - cross-border hub of excellence in Artificial Intelligence and Big Data incl health	http://www.competitiveko.eu/en/bigdatia-2/
EOSC4Cancer - European Open Science Cloud for Cancer	https://eosc4cancer.eu/
INNOVMEDICA - cross-border center of excellence for medical devices and e-health	http://www.competitiveko.eu/innovmedica-alliance/
ITHACA - InnovaTion in Health And Care for All	https://www.interregeurope.eu/ithaca/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

DIHNAMIC - Digital Innovation Hub for Nouvelle-Aquitaine Manufacturing Industry Community	https://www.dihnamic.eu

Policy

FundingProgramme

PM-related Stakeholders

Cancer-Bio-Santé regional bio-cluster		Cluster	http://www.innoviscop.com/node/255	
Cancéropôle Grand Sud-Ouest	GSO	Research	http://www.canceropole-gso.org/	
Invivolim		Cluster	https://www.invivolim.fr/	
Région Nouvelle Aquitaine		Policy	https://www.nouvelle-aquitaine.fr/	
TIC Santé Nouvelle Aquitaine		Cluster	https://ticsante-na.com/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

FRJ   Occitanie

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	82
Total population (2019)	5899209
Proportion older 65y % (2019)	22,73%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Advanced and targeted therapies. They would notably be applied to chronic diseases and ageing. Research in Oncology and Gerontology. Therapeutics, "silver economy", prevention, diagnostic, health, clinical trials. Industrial biotechnologies for renewable carbon. Cellular engineering and regenerative medicine, new ways to produce chemical molecules

url RIS3 2014-2020

PM-related Best Practices
Interregional Collaborations

Clinical trial of autologous adipose-derived mesenchymal stromal cells (ASC) in the treatment of mild to moderate osteoarthritis	https://cordis.europa.eu/project/id/643809
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/

Project

Biobanks, Cohorts and genomic initiatives

UMD FBN1 (fibrillin 1) mutations database	https://www.orpha.net/consor/cgi-
UMD FBN2 (fibrillin 2) mutations database	https://www.orpha.net/consor/cgi-
UMD TGFBR2 (transforming growth factor, beta receptor II) mutations database	https://www.orpha.net/consor/cgi-

Digital Innovation Hubs

Agri Sud Ouest Innovation	https://www.agrisoi.fr/
Robotics place	https://www.robotics-place.com/

Policy

FundingProgramme

PM-related Stakeholders

Cancer-Bio-Santé regional bio-cluster		Cluster	http://www.innoviscop.com/node/255	
Cancéropôle Grand Sud-Ouest	GSO	Research	http://www.canceropole-gso.org/	
Eurobiomed Biocluster Méditerranée		Cluster	https://www.eurobiomed.org/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); European Regions Research and Innovation Network (ERRIN)

FRK **Auvergne-Rhône-Alpes**

The region Auvergne Rhône-Alpes is located in the centre and southeast of France, and has a population of 6.3 million. The region has a strong dynamism in various domains such as, energy, industry, research pharma and biotechnologies, agriculture or tourism. The previous regions (Auvergne FR72 and Rhône-Alpes FR71) were merged. The regions' S3 priorities for 2014-2020 for Rhône-Alpes involved a focus on personalised healthcare for infectious and chronic diseases; this involves diagnosis, therapy, vaccine, medical technologies, health, nutrition and some target diseases (infectious diseases, cancers, other chronic diseases and ageing). There were also priorities in Digital technologies and user-friendly systems, and Sports, among others. For Auvergne the S3 priorities for 2014-2020 were Preventive healthcare and quality of life of patients : Accelerating market entry of products and services aimed at ensuring preventive healthcare and improving the quality of life of patients.

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	114
Total population (2019)	8005882
Proportion older 65y % (2019)	20,05%
Mountain, remote, island?	> 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Personalised healthcare for infectious and chronic diseases. This involves diagnosis, therapy, vaccine, medical technologies, health, nutrition and some target diseases (infectious diseases, cancers, other chronic diseases and ageing). / Preventive healthcare and quality of life of patients. Accelerating market entry of products and services aimed at ensuring preventive healthcare and improving the quality of life of patients. Digital technologies and user-friendly systems. This involves advanced production and industrial robotics, service robotics and ambient intelligence, the treatment of complex data and cybersecurity,

url RIS3 2014-2020

PM-related Best Practices
Interregional Collaborations

CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
DIHsP4 - Action plan to shape corridors among DIHs to foster innovation ecosystems and accelerate the deployment of the P4 Medicine Paradigm| Fostering collaboration among Digital Innovation Hubs in the area of P4 medicine	https://cordis.europa.eu/project/id/101070719
ImmunoSep - Personalized immunotherapy in sepsis: a precision medicine based approach	https://www.immunosep.eu/

KATY - AI-Empowered Personalised Medicine System to Improve Cancer Treatments	https://katy-project.eu/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
MisMi-Modèle intégré de santé pour une Montagne inclusive/Modello integrato di salute per una Montagna inclusiva	https://www.mismiproject.eu/
MyPeBS - My Personal Breast Screening	https://www.mypebs.eu/
S3 ClusSport	https://s3platform-legacy.jrc.ec.europa.eu/sport
S³martMed - The European Strategic Cluster Partnership for smart specialisation investments in medical technologies.	https://s3martmed.eu/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/

Project

Clinical Investigation Center in Innovative Technology		https://www.interregeurope.eu/policylearning/good-practices/item/3302/clinical-investigation-center-in-innovative-technology/
Easytech Program : Technological Transfert for SMEs		https://www.interregeurope.eu/policylearning/good-practices/item/3555/easytech-program-technological-transfert-for-smes/
Experimental Center for Participatory and Individualized Predictive Prevention in Auvergne - Centre Expérimental de Prévention Prédictive Participative Individualisée en Auvergne	CEPPPIA	http://grandclermont.com/projet-cepppia-centre-experimental-de-prevention-predictive-participative-individualisee
Hub4AIM - Hub for Accelerating your Innovation in Medtech		http://hub4aim.com/

Biobanks, Cohorts and genomic initiatives

Auvergne registry of congenital anomalies - contributes to the EUROCAT network	https://www.orpha.net/consor/cgi-
Rhône-Alpes registry of congenital anomalies - contributes to the EUROCAT network	https://www.orpha.net/consor/cgi-bin/ResearchTrials_RegistriesMaterials.php?lng=EN&data_id=59919&Registry
VetBiobank	https://www.vetbiobank.com/vetbiobank/?lang=en

Digital Innovation Hubs

CEA Leti Health	http://www.cea-tech.fr/cea-tech/english/Pages/application-sectors/human-health-and-environment-thematic.aspx
ICT4Manuf	https://ict4manuf.univ-lyon2.fr/Digital-Innovation-Hub/?page_id=1695
JESSICA FRANCE - CAP'TRONIC program	https://www.captronic.fr
Minalogic	https://www.minalogic.com/fr
minaSmart	http://www.minasmart-auvergnerhonealpes.com/
Plastipolis	http://www.plastipolis.fr/
ViaMéca	http://www.viameca.fr/accueil-viameca.html

Policy

Schéma Régional de Développement Economique, d'Innovation et d'Internationalisation (SRDEII)	http://delib.auvergnerhonealpes.eu/NetelibDocsInter/AssembleePleniere/2016/12/15/ANNEXE/T017V.pdf
Schéma Regional Enseignement Supérieur, Recherche et Innovation	https://www.auvergnerhonealpes.fr/uploads/Document/30/496_248_Schema-Regional-d-Enseignement-Superieur-de-Recherche-et-d-Innovation.pdf

FundingProgramme

PM-related Stakeholders

AURAGEN AUvergne Rhône-Alpes Génomique		Research	https://www.auragen.fr/	infrastructure, services
Canceropôle Lyon Auvergne Rhöne Alpes	CLARA	Research	https://www.canceropole-clara.com/	
Centre Jean PERRIN | Centre de lutte contre le cancer		Hospital	https://www.cjp.fr/	research education
Centre Léon Bérard | Centre de lutte contre le cancer, hôpital cancer Lyon		Hospital	https://www.centreleonberard.fr/	research
CHU Grenoble Alpes		Hospital	https://www.chu-grenoble.fr/	
Cluster i-Care		Cluster	http://i-carecluster.org/	
European Molecular Biology Laboratory - Grenoble	EMBL Grenoble	Research	https://www.embl.fr/aboutus/general_information/GR_about/index.html	research and services for structural biology
Health2Care Alliance régionale « cross-secteur » autour de la médecine personnalisée		Cluster	https://lyonbiopole.com/health2care	
Hospices Civils de Lyon	HCL		https://www.chu-lyon.fr/recherche-en-sante	
Lyonbiopôle regional bio-cluster		Cluster	https://lyonbiopole.com/	
MEDICALPS , cluster of the health technologies sector		Cluster	https://www.medicalps.eu/	
Medytec Health Technology hub of Grenoble Alpes		Cluster	https://medytec.eu/en/	
Minalogic - global innovation cluster for digital technologies based in Auvergne-Rhône-Alpes		Cluster	https://www.minalogic.com/	
Région Auvergne-Rhône-Alpes		Policy	www.auvergnerhonealpes.fr	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN); Council of European Bioregions (CEBR)

16/05/2023   not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

FRL   **Provence-Alpes-Côte d'Azur**

Innovation Performance group (2021)	Strong innovator -
Population Density (per km² (2019)	162
Total population (2019)	5048405
Proportion older 65y % (2019)	23,12%
Mountain, remote, island?	> 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Improving patient care through early testing, medical diagnostic assistance and the development of medical devices, developing e-health solutions and preventing diseases through the promotion of the Mediterranean diet.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FR82

PM-related Best Practices

Interregional Collaborations

CoNSENSo - COmmunity Nurse Supporting Elderly iN a changing Society	https://www.alpine-space.org/projects/consenso/en/home
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
ReCoDID - Reconciliation of Cohort data in Infectious Diseases	https://recodid.eu/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/

Project

Biobanks, Cohorts and genomic initiatives

French Disease Registry for Wolfram syndrome, Alström syndrome, Bardet-Biedl syndrome and other rare diabetes syndromes - contributes to EURO-WABB	https://www.orpha.net/consor/cgi-bin/ResearchTrials_RegistriesMaterials.php?lng=EN&data_id=108348&Registry

Digital Innovation Hubs

Booster SPACE4EARTH	https://www.safecluster.com/booster-space4earth/
Connectwave	http://www.centrenational-rfid.com/
Move2Digital	https://www.move2digital.eu/
Secured Communicating Solutions cluster (SCS)	https://www.pole-scs.org
TVT Innovation - Pôle Mer Méditerranée	http://www.tvt.fr/

Policy

FundingProgramme

PM-related Stakeholders

Canceropôle Provence-Alpes-Côte d'Azur		Research	https://canceropole-paca.com/	
Centre d'Innovation du Partenariat avec les Patients et le Public	CI3P	Research	https://ci3p.univ-cotedazur.fr/	
Delvalle, Connected Health / la santé connectée		Cluster	http://delvalle.nicecotedazur.org/	
Eurobiomed Biocluster Méditerranée		Cluster	https://www.eurobiomed.org/	
Région PACA Provence Alpes Côte d'Azur		Policy	https://www.maregionsud.fr/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); European Regions Research and Innovation Network (ERRIN)

FRM   Corse

Innovation Performance group (2021)	Emerging innovator
Population Density (per km² (2019)	40
Total population (2019)	341554
Proportion older 65y % (2019)	23,78%
Mountain, remote, island?	Island, > 50 % of population live and > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Digital development of the territory. This involves 1) digital infrastructure deployment, 2) ICT usage investigations and 3) dedicated research on ICT companies.
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/FR83

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Community of Corsica / Collectivité territoriale de Corse		Policy	https://www.isula.corsica/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

16/05/2023   not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

FRY   Départements d'Outre Mer

Innovation Performance group (2021)	Emerging innovator +
Population Density (per km² (2019)	25
Total population (2019)	2190929
Proportion older 65y % (2019)	13,29%
Mountain, remote, island?	Remote Islands (except Guyane), > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 La Réunion : Tropical bioeconomy / Experiential e-co-tourism / Territorial agility

url RIS3 2021-2027

RIS3 priorities 2014-20   integrated health policy. Silver economy. Ageing economy. Digital services and software. ICT for health. Telemedicine. Remote technology & sensing. Health. Innovative diagnoses and therapies, well-being, health risk and pathologies prevention. digital economy. e-health.

url RIS3 2014-2020

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

French West Indies registry of congenital anomalies - contributes to the EUROCAT network	https://www.orpha.net/consor/cgi-bin/ResearchTrials_RegistriesMaterials.php?lng=EN&data_id=113742&Registry
La Réunion French Island registry of congenital anomalies - contributes to the EUROCAT network	https://www.orpha.net/consor/cgi-bin/ResearchTrials_RegistriesMaterials.php?lng=EN&data_id=108281&Registry

SAPHIRe Regional Report

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Cyclotron Réunion Océan Indien platform dedicated to health and biotechnologies	CYROI	Research	https://cyroi.re/	recherche santé bio innovation
Regional Agency for Development, Investment and Innovation / Agence Régionale de Développement, d'Investissement et d'Innovation	NEXA	Innovation Agency	http://www.nexa.re/accueil/	
Territorial Collectivity of Martinique / Collectivité Territoriale de Martinique	CTM	Policy	http://www.collectivitedemartinique.mq/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

HR   Hrvatska / Croatia (National level)

Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_hr_english.pdf

Innovation Performance group (2021)	Emerging innovator
Population Density (per km² (2019)	73
Total population (2019)	4076246
Proportion older 65y % (2019)	20,57%
Mountain, remote, island?	non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Pharmaceuticals, bio-pharmaceuticals, medical equipment and devices; health services and new methods of preventive medicine and diagnostics; and nutrition. Bioeconomy
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/HR

PM-related Best Practices

Interregional Collaborations

EATRIS - European infrastructure for translational medicinE	https://eatris.eu/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
ERA-NET NEURON Cofund2 togther for brain research	https://www.neuron-eranet.eu/
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/
STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/

Project

SAPHIRe Regional Report

16/05/2023

Biobanks, Cohorts and genomic initiatives

Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Agency for Medicinal Products and Medical Devices	HALMED		https://www.halmed.hr/en/	
Croatian Institute of Public Health			https://www.hzjz.hr/en/directorate/croatian-institute-of-public-health/	
Croatian Science Foundation	HRZZ	Funding	https://hrzz.hr/en/	
Ministry of Science and Education of the Republic of Croatia	MSE	Policy - Research & Innovation	https://mzo.gov.hr/en	

Memberships/Representations In EU/international projects or initiatives in the area of PM

ICPerMed

HU   Magyarország / Hungary (National level)

Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_hu_english.pdf

Innovation Performance group (2021)	Emerging innovator
Population Density (per km² (2019)	107
Total population (2019)	9772756
Proportion older 65y % (2019)	19,34%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 two health priorities (clinical and biomedical research, personalised medicine and medical devices, medical IT technology)

url RIS3 2021-2027   https://nkfih.gov.hu/english/national-smart-specialisation-strategy/s3-strategy-2021-2027

RIS3 priorities 2014-20   The priority wants to cover the entire health care industry innovation chain ranging from the better understanding of the diseases, through prevention and recognition, to curing and personalized doctoring through the use of advanced technologies, such as biotechnology in health industry, biomedicine and pharmaceutical industry, systems biology-based remedy, advanced diagnostic and therapeutic methods. bioinformatics or diagnostic imaging in the health industry

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/HU

PM-related Best Practices
Interregional Collaborations

B1MG - Beyond 1 Million Genomes Pan-European initiative to create genome-based health data infrastructure	https://b1mg-project.eu/
BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
digital Life4CE	https://www.interreg-central.eu/Content.Node/digitalLIFE4CE.html
ECRIN - European Clinical Research Infrastructure Network	https://ecrin.org/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
ERA-NET NEURON Cofund2 togther for brain research	https://www.neuron-eranet.eu/
ERA-NET TRANSCAN-2 Aligning national/regional translational cancer research programmes and activities	https://www.era-learn.eu/network-information/networks/transcan-2
ERA-NET TRANSCAN-3	https://www.era-learn.eu/network-information/networks/transcan-3
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/

HEcoPerMed	https://hecopermed.eu/
Helium (Health Innovation Experimental Landscape through Policy Improvement)	https://www.interregeurope.eu/helium/
HoCare - Delivery of Innovative solutions for Home Care by strengthening quadruple-helix cooperation in regional innovation chains	https://www.interregeurope.eu/hocare/
INCENTIVE - Innovation and technology to improve customer-oriented healthcare services	https://www.interregeurope.eu/intencive/
STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
Support for the health workforce planning and forecasting expert network	http://healthworkforce.eu/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/
UNCAN - a European Initiative to UNderstand CANcer – Drafting a Blueprint for European Cancer Research	https://uncan.eu/

Project

National Bionics Program		https://bik.hu/
National Health Repository	NegTár	https://bik.hu/kutatasok/nemzeti-egeszsegtarhaz-kialakitasa-es-mukodtetese/

Biobanks, Cohorts and genomic initiatives

Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-

Digital Innovation Hubs

Policy

„Healthy Hungary 2014-2020" healthcare strategy	https://www.kormany.hu/download/e/a4/30000/Eg%C3%A9szs%C3%A9ges_Magyarorsz%C3%A1g_e%C3%BC_strat%C3%A9gia_.pdf

FundingProgramme

PM-related Stakeholders

Alliance Informatics and Innovation Cluster		Cluster	http://alliance.hu/lang/en/article/alliance-innovation-center.html	
Bionic Innovation Centre Ltd.		Research	https://bik.hu/	
ELIXIR Hungary		Infrastructure	http://elixir-hungary.org/	
Health Services Management Training Centre – Semmelweis University		Research	https://semmelweis.hu/emk/en/	
Hungarian Development Center	HDC	Policy	http://www.mfk.gov.hu/about-us.html	
Institute of Experimental Medicine	KOKI	Research	http://koki.hu/english	
MSE Hungarian Sport and Lifestyle		Cluster	https://sporteseletmod.hu/en	
National Healthcare Service Center			https://okfo.gov.hu/web/national-healthcare-services-center	
National Institute of Oncology	NIO	Research	https://onkol.hu/?lang=en	
National Institute of Pharmacy and Nutrition	OGYÉI		https://ogyei.gov.hu/	
National Office for Research Development and Innovation	NKFI	Policy - Research & Innovation	https://nkfih.gov.hu/english	
Oncompass Medicine Hungary Kft			https://oncompass.hu/	Future Unicornisa Award for its oncology software developed to select targeted therapies for cancer patients in 2021
Pannon Economic Network Association	PBN	Research	https://www.pbn.hu/	digital innovation centre
Syreon Research Institute		Research	https://syreon.eu/	partner HEcoPerMed

Memberships/Representations In EU/international projects or initiatives in the area of PM

ICPerMed

HU11   Budapest

Innovation Performance group (2021)	Moderate innovator +
Population Density (per km² (2019)	3434
Total population (2019)	1752286
Proportion older 65y % (2019)	20,48%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20

url RIS3 2014-2020

PM-related Best Practices
Interregional Collaborations

iNEXT-Discovery Project - Infrastructure for transnational access and discovery in structural biology	https://cordis.europa.eu/project/id/871037

Project

Biobanks, Cohorts and genomic initiatives

National NF Register	https://www.orpha.net/consor/cgi-

16/05/2023

Digital Innovation Hubs

AddedValue	http://www.valueaddedinstituteassociation.eoldal.hu/cikkek/addedvalue-dih/
BME-EET	https://dih.eet.bme.hu/
Demola-Budapest	https://budapest.demola.net/
innomine Digital Innovation Hub	http://innomine.com/digital-innovation-hub

Policy

FundingProgramme

PM-related Stakeholders

Hungarian Academy of Sciences	MTA		https://mta.hu/english/	
Startup Campus		Infrastructure	https://www.startupcampus.hu/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

HU23   Dél-Dunántúl / Southern Transdanubia

Innovation Performance group (2021)	Emerging innovator
Population Density (per km² (2019)	64
Total population (2019)	879596
Proportion older 65y % (2019)	20,74%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 S3 thematic platform : medical technologies

url RIS3 2021-2027   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/HU23

RIS3 priorities 2014-20

url RIS3 2014-2020

PM-related Best Practices
Interregional Collaborations

Medtech4Europe	https://www.interregeurope.eu/medtech4europe/

Project

Biobanks, Cohorts and genomic initiatives

Marfan biobank	https://www.orpha.net/consor/cgi-
Neurofibromatosis type 1 biobank	https://www.orpha.net/consor/cgi-

16/05/2023

Digital Innovation Hubs

innomine DIH - South Transdanubian branch	http://innomine.com/digital-innovation-hub

Policy

FundingProgramme

PM-related Stakeholders

Memberships/Representations In EU/international projects or initiatives in the area of PM

innomine DIH - South Transdanubian branch	http://innomine.com/digital-innovation-hub

HU32   Észak-Alföld / Northern Great Plain

Innovation Performance group (2021)	Emerging innovator
Population Density (per km² (2019)	83
Total population (2019)	1450960
Proportion older 65y % (2019)	17,89%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 not health related

url RIS3 2021-2027   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/HU32

RIS3 priorities 2014-20

url RIS3 2014-2020

PM-related Best Practices

Interregional Collaborations

PRECeDI - Personalized PREvention of Chronic Diseases	http://www.precedi.eu/site/index.php
PROPHET - a PeRsOnalized Prevention roadmap for the future HEalThcare	https://cordis.europa.eu/project/id/101057721

Project

Biobanks, Cohorts and genomic initiatives

16/05/2023   not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

University of Debrecen		Research	https://unideb.hu/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

IE — Éire / Ireland (National level)

Ireland is an island in the North Atlantic. It has a population of 4.5 million. Ireland's RIS3 priorities include a focus on Connected Health & Independent Living; Data Analytics, Management, Security & Privacy; Diagnostics; Digital Platforms, Content & Applications; Food for health; Future Networks & Communications; Innovation in Services & Business Processes; Manufacturing processes; Manufacturing Competitiveness; Marine Renewable Energy and Medical devices. Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_ir_english.pdf

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	72
Total population (2019)	4904240
Proportion older 65y % (2019)	14,10%
Mountain, remote, island?	Non mountain Island

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Therapeutics – Synthesis, Formulation, Processing & Drug Delivery - Diagnostics - Medical devices - Connected Health & Independent living
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/IE

PM-related Best Practices

Interregional Collaborations

BeNeLuxA Initiative – Collaboration on Pharmaceutical Policy Horizon scanning for pharmaceuticals	https://beneluxa.org/
CHITIN - Cross-border Healthcare Intervention Trials in Ireland Network	https://www.seupb.eu/sites/default/files/styles/INTERREGVA/CHITIN_CaseStudy1.PDF
Clinical trial of autologous adipose-derived mesenchymal stromal cells (ASC) in the treatment of mild to moderate osteoarthritis	https://cordis.europa.eu/project/id/643809
ECRIN - European Clinical Research Infrastructure Network	https://ecrin.org/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
ERA-NET NEURON Cofund2 togther for brain research	https://www.neuron-eranet.eu/
ERA-NET TRANSCAN-3	https://www.era-learn.eu/network-information/networks/transcan-3
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/
EuroNanoMed III (2016-2021) the new ERA-Net Cofund Action on Nanomedicine	https://euronanomed.net/

EurOPDX	https://www.europdx.eu/
GenOMICC - Genetics of Mortality in Critical Care	https://genomicc.org/
JAseHN - Joint Action to support the eHealth Network (2015 -2018)	https://webgate.ec.europa.eu/chafea_pdb/health/projects/677102/summary
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/
TO-REACH Transferring Innovations in Health Systems	https://to-reach.eu/
UNCAN - a European Initiative to UNderstand CANcer – Drafting a Blueprint for European Cancer Research	https://uncan.eu/

Project

Genomics Medicine Ireland	GMI	https://genomicsmed.ie/
Precision Oncology Ireland		http://www.precisiononcology.ie/
The Trial Assigning IndividuaLized Options for Treatment (Rx)	TAILORx	https://www.cancer.gov/types/breast/research/tailorx

Biobanks, Cohorts and genomic initiatives

Observer Country European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-

Digital Innovation Hubs

Policy

eHealth Strategy for Ireland	https://www.ehealthireland.ie/Knowledge-Information-Plan/eHealth-Strategy-for-Ireland.pdf
Genomics Medicine Ireland	https://isif.ie/news/press-releases/genomics-medicine-ireland-raises-40m-in-series-a-funding
Innovation 2020	https://dbei.gov.ie/en/Publications/Publication-files/Innovation-2020.pdf
Life Sciences Industrial Strategy	https://research.hscni.net/sites/default/files/Life_sciences_industrial_strategy_update.pdf
National Cancer Strategy 2017 – 2026	https://www.gov.ie/en/publication/a89819-national-cancer-strategy-2017-2026/
Precision Oncology Ireland	https://www.gov.ie/en/press-release/42d197-119-million-sfi-research-collaboration-targets-precision-oncology/
Sláintecare Report : Committee on the Future of Healthcare	https://www.gov.ie/pdf/?file=https://assets.gov.ie/165/270718095030-1134389-Slaintecare-Report-May-2017.pdf

FundingProgramme

SAPHIRe Regional Report

Cancer Prevention Fellowship	https://www.hrb.ie/funding/funding-schemes/all-funding-schemes/grant/nci-hrb-cancer-prevention-fellowships-programme-2020-next-call-in-may-2020/
Emerging Investigator Award	https://www.hrb.ie/funding/funding-schemes/all-funding-schemes/grant/emerging-investigator-awards-eia-2019-next-call-in-q2-2020/
HRCI/HRB Joint Funding Scheme	https://www.hrb.ie/funding/funding-schemes/all-funding-schemes/grant/hrcihrb-joint-funding-scheme-2020-previously-mrcg-hrb/
Investigator Led Projects	https://www.hrb.ie/funding/funding-schemes/grant/investigator-led-projects-ilp-2019-next-call-in-q3-2020/
Research Leader Awards 2020	https://www.hrb.ie/funding/funding-schemes/all-funding-schemes/grant/research-leader-awards-rl-2020-next-call-in-q1-2021/
SFI Career Development Award (CDA)	http://www.sfi.ie/funding/funding-calls/closed-calls/sfi-career-development-award-programme-2016.html
SFI Investigators Programme (IVP)	http://www.sfi.ie/funding/funding-calls/closed-calls/sfi-investigators-programme-2015.html
SFI Research Centres 2016	http://www.sfi.ie/investments-achievements/sfi-research-centres/
SFI Starting Investigator Research Grant (SIRG)	http://www.sfi.ie/funding/funding-calls/closed-calls/sfi-career-development-award-programme-2016.html
SFI-HRB-Wellcome Trust Biomedical Research Partnership	https://www.hrb.ie/funding/funding-schemes/all-funding-schemes/grant/sfi-hrb-wellcome-biomedical-research-partnership/

PM-related Stakeholders

BioPharmaChem Ireland		Cluster	https://www.ibec.ie/connect-and-learn/industries/life-sciences-and-healthcare/biopharmachem-ireland	
Cancer Clinical Research Trust	CCRT	Funding	https://www.ccrt.ie/	
Connected Health & Wellbeing Cluster	DKIT CHW	Cluster	https://www.chwcluster.ie/	
Cúram Research Centre - SFI Research Centre for Medical Devices		Research	https://www.nuigalway.ie/curam/	
Department of Business, Enterprise and Innovation		Policy - Research & Innovation	https://dbei.gov.ie/en/	
Department of Further and Higher Education, Research, Innovation and Science		Policy - Research & Innovation	https://www.gov.ie/en/organisation/department-of-higher-education-innovation-and-science/	
Department of Health		Policy - Healthcare	https://www.gov.ie/en/organisation/department-of-health/	
ELIXIR Ireland		Infrastructure	https://elixir-europe.org/about-us/who-we-are/nodes/ireland	
Genomics Medicine Ireland		Corporate - Medtech	https://genomicsmed.ie/	
Health Products Regulatory Authority	HPRA		https://www.hpra.ie/	
Health Research Board	HRB	Funding	https://www.hrb.ie/	
Irish Cancer Society		Funding	https://www.cancer.ie/	
Irish Medtech Association	IMA	Cluster	https://www.irishmedtechassoc.ie/	

National Institute for Cellular Biotechnology	NICB	Research	https://nicb.ie/	leading multidisciplinary centre of translational research in Fundamental and Applied Cellular Biotechnology, Molecular Cell Biology, Ocular Diseases and Biological Chemistry
National Preclinical Imaging Centre	NPIC	Infrastructure	https://www.rcsi.com/dublin/news-and-events/news/news-article/2020/06/ireland-establishes-first-national-preclinical-imaging-centre-to-enhance-medical-research	
Precision Oncology Ireland	POI	Cluster	http://www.precisiononcology.ie/	research
RCSI Precision Cancer Medicine	PCM	Research	https://www.precisioncancermedicinegroup.com/	
RCSI Royal College of Surgeons in Ireland University of Medicine and Health Sciences		Research	https://www.rcsi.com/dublin/about/faculty-of-medicine-and-health-sciences	
Systems Biology Ireland	SBI	Research	https://www.ucd.ie/sbi/	cellular signaling networks

Memberships/Representations In EU/international projects or initiatives in the area of PM

ICPerMed, European Regions Research and Innovation Network (ERRIN)

INT   International level

Innovation Performance group (2021)	
Population Density (per km² (2019)	60
Total population (2019)	7774526954
Proportion older 65y % (2019)	
Mountain, remote, island?	

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20

url RIS3 2014-2020

PM-related Best Practices

Interregional Collaborations

GenOMICC - Genetics of Mortality in Critical Care	https://genomicc.org/

Project

Cancer Genomics Cloud	CGC	https://www.cancergenomicscloud.org/
HapMap		https://www.genome.gov/10001688/international-hapmap-project
Human Cell Atlas	HCA	https://www.humancellatlas.org/
Human Genome Diversity Project	HGDP	https://en.wikipedia.org/wiki/Human_Genome_Diversity_Project
Human Genome Project	HGP	https://www.genome.gov/human-genome-project
ICGC/TCGA Pan-Cancer Analysis of Whole Genomes Consortium	PCAWG	https://dcc.icgc.org/pcawg
International Cancer Genome Consortium	ICGC	https://daco.icgc.org/
International HundredK+ Cohorts Consortium (IHCC)		https://ihccglobal.org/
SOLID		https://solidproject.org/

SAPHIRe Regional Report

Biobanks, Cohorts and genomic initiatives

International Society Biological and Environmental Repositories	https://www.isber.org/

Digital Innovation Hubs

Policy

A roadmap for the development of precision medicine	https://infoscience.epfl.ch/record/230179/files/IRGC.%20%282017%29.%20A%20roadmap%20for%20precision%20medicine.%20Policy%20brief.pdf
Building and sustaining collaborative platforms in genomics and biobanks (OECD SCIENCE, TECHNOLOGY AND INDUSTRY POLICY PAPERS March 2021 No. 102 for health innovation)	https://www.oecd-ilibrary.org/science-and-technology/building-and-sustaining-collaborative-platforms-in-genomics-and-biobanks-for-health-innovation_11d960b7-en
Common Minimum Technical Standards and Protocols for Biobanks Dedicated to Cancer Research	https://ibb.iarc.fr/standards/index.php
Framework for Responsible Sharing of Genomic and Health-Related Data	https://www.ga4gh.org/genomic-data-toolkit/regulatory-ethics-toolkit/
Guidelines for personalised medicine research projects regarding Open Science and Open Access	https://www.icpermed.eu/en/1090.php
ICPerMed Action Plan	https://www.icpermed.eu/en/activities-action-plan.php
ICPerMed Vision Paper	https://www.icpermed.eu/en/activities-vision-paper.php
International Ethical Guidelines for Health-related Research Involving Humans Prepared by the Council for International Organizations of Medical Sciences (CIOMS) in collaboration with the World Health Organization (WHO)	https://cioms.ch/wp-content/uploads/2017/01/WEB-CIOMS-EthicalGuidelines.pdf
ISO 20387:2018(en) Biotechnology — Biobanking — General requirements for biobanking	https://www.iso.org/obp/ui/ - iso:std:iso:20387:ed-1:v1:en
National Cancer Institute Best Practices principles to guide procedures developed by biospecimen resources	https://biospecimens.cancer.gov/bestpractices/
OECD Recommendation of the Council concerning Access to Research Data from Public Funding [OECD/LEGAL/0347]	https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0347
OECD Recommendation of the Council on Human Biobanks and Genetic Research Databases [OECD/LEGAL/0375]	https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0375
Primary, secondary and tertiary prevention (Institute for Work & Health)	https://www.iwh.on.ca/what-researchers-mean-by/primary-secondary-and-tertiary-prevention
Recommendation of the OECD Council on Health Data Governance	https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0433
Recommendations : Personalising breast cancer prevention: bridging the gap between research and policy	https://www.phgfoundation.org/documents/personalising-breast-cancer-prevention.pdf

WMA Declaration of Taipei on Ethical Considerations regarding Health Databases and Biobanks	https://www.wma.net/policies-post/wma-declaration-of-taipei-on-ethical-considerations-regarding-health-databases-and-biobanks/

FundingProgramme

PM-related Stakeholders

Partnership for advanced computing in Europe	PRACE	International Organisation	http://www.prace-ri.eu/	
Alliance for Regenerative Medicine	ARM	Cluster	http://alliancerm.org/	
Breast Centres Network		International Organisation	https://www.breastcentresnetwork.org/	
Forum MedTech Pharma - Network for innovations in the healthcare industry		Cluster	https://www.medtech-pharma.de/2/home.aspx?pgid=13&lnid=2	
International Agency for Research on Cancer	IARC	International Organisation	https://www.iarc.who.int/	
International Centers for Precision Oncology	ICPO	Cluster	https://www.icpo.foundation/home/	
International Human Epigenome Consortium	IHEC		http://ihec-epigenomes.org/	
International Prevention Research Institute	iPRI		http://www.i-pri.org/	
International Society for Biological and Environme	ISBER	International Organisation	https://www.isber.org/	
NonCommunicable Diseases Alliance	NCDA	International Organisation	https://ncdalliance.org/	Making NCD prevention and control a priority
OECD Working Party on Biotechnology, Nanotechnology and Converging Technologies	BNCT	International Organisation	https://community.oecd.org/community/cstp/bnct	
OurBrainBank		Cluster	https://ourbrainbank.org/	
WHO Expert Advisory Committee on Developing Global Standards for Governance and Oversight of Human Genome Editing		International Organisation	https://www.who.int/teams/health-ethics-governance/emerging-technologies/expert-advisory-committee-on-developing-global-standards-for-governance-and-oversight-of-human-genome-editing	

Memberships/Representations In EU/international projects or initiatives in the area of PM

IT   Italia / Italy (National level)

Country Health Profile 2021 see https://ec.europa.eu/health/sites/health/files/state/docs/2021_chp_it_english.pdf

Innovation Performance group (2021)	Moderate innovator
Population Density (per km² (2019)	202
Total population (2019)	60359546
Proportion older 65y % (2019)	22,84%
Mountain, remote, island?	Mix of mountain & non-mountain & islands

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	health
url RIS3 2014-2020	https://www.invitalia.it/-/media/invitalia/documenti/chi-siamo/area-media/storie/19007056strategianaziona.pdf?la=it-it&hash=925D112984136EB5DC1459D8FF901BDDE75B4950

PM-related Best Practices

Interregional Collaborations

B1MG - Beyond 1 Million Genomes Pan-European initiative to create genome-based health data infrastructure	https://b1mg-project.eu/
BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
DIGICORE - DIGital Institute for Cancer Outcomes Research	
EATRIS - European infrastructure for translational medicinE	https://eatris.eu/
ECRIN - European Clinical Research Infrastructure Network	https://ecrin.org/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
EOSC4Cancer - European Open Science Cloud for Cancer	https://eosc4cancer.eu/
ERA CoBioTech	https://www.cobiotech.eu/home
ERA-NET NEURON Cofund2 togther for brain research	https://www.neuron-eranet.eu/
ERA-NET TRANSCAN-2 Aligning national/regional translational cancer research programmes and activities	https://www.era-learn.eu/network-information/networks/transcan-2
ERA-NET TRANSCAN-3	https://www.era-learn.eu/network-information/networks/transcan-3

ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/
EULAC - PerMed	https://www.eulac-permed.eu/
EuroNanoMed III (2016-2021) the new ERA-Net Cofund Action on Nanomedicine	https://euronanomed.net/
ExACT- European network staff eXchange for integrAting precision health in the health Care sysTems	http://www.exactproject.net/site/
GenoMed4All	https://genomed4all.eu/
IndividualizedPaediatricCure: Cloud-based virtual-patient models for precision paediatric oncology	https://cordis.europa.eu/project/id/826121
MedIT - Information Technologies in Medicine	http://www.meditcluster.com/
MIRRI - Microbial Resource Research Infrastructure	https://www.mirri.org/
Restore	https://www.restore-horizon.eu/
STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
Support for the health workforce planning and forecasting expert network	http://healthworkforce.eu/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/
TO-REACH Transferring Innovations in Health Systems	https://to-reach.eu/
ULTRAPLACAD - ULTRAsensitive PLAsmonic devices for early CAncer Diagnosis	https://ultraplacad.eu/
UNCAN - a European Initiative to UNderstand CANcer – Drafting a Blueprint for European Cancer Research	https://uncan.eu/

Project

Biobanks, Cohorts and genomic initiatives

Biobanking and BioMolecular resources Research Infrastructure of Italy	https://www.bbmri.it/en/
Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-

Digital Innovation Hubs

16/05/2023   not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Policy

ALISEI applied life science national cluster strategic plan	http://www.clusteralisei.it/en/strategic-plan/
Italian Microbiome Initiative for Improved Human Health and Agrifood Production	http://cnbbsv.palazzochigi.it/media/1859/microbioma-2019.pdf
Strategic Development Plan of the National Technology Cluster for Life Sciences ALISEI (2017-2020)	http://www.clusteralisei.it/wp-content/uploads/2017/07/Piano-di-Sviluppo-Strategico-2017-2020.pdf

FundingProgramme

Big Data for Disease Prevention and Precision Medicine.	http://www.itb.cnr.it/
Deployment of Generic Cross Border eHealth Services in Italy (NCPeH)	https://www.fascicolosanitario.gov.it/contesto-di-riferimento
EuroNanoMed III	http://www.euronanomed.net/
IRCCS Network Aging And Active Longevity (AGING)	http://www.salute.gov.it/portale/temi/p2_5.jsp?lingua=italiano&area=Ricerca%20sanitaria&menu=reti
IRCCS Network Alliance against Cancer (ACC)	http://www.salute.gov.it/portale/temi/p2_6.jsp?lingua=italiano&id=4521&area=Ricerca%20sanitaria&menu=reti
IRCCS Network Cardiovascular Diseases	http://www.salute.gov.it/portale/temi/p2_6.jsp?lingua=italiano&id=4520&area=Ricerca%20sanitaria&menu=reti
IRCCS Network Italian Developmental Age Health-IDEA	http://www.salute.gov.it/portale/temi/p2_5.jsp?lingua=italiano&area=Ricerca%20sanitaria&menu=reti
IRCCS Network Neuroscience and Rehabilitation	http://www.salute.gov.it/portale/temi/p2_6.jsp?lingua=italiano&id=4523&area=Ricerca%20sanitaria&menu=reti
IRCCS Ordinary Research	http://www.salute.gov.it/portale/home.html
Italian Alliance for Personalized Medicine (IAPM)	http://www.euapm.eu/who-we-are.html
National Biomedical Open Call	http://www.salute.gov.it/portale/home.html
Research Facilities IRCCS and ISS	http://www.salute.gov.it/portale/home.html

PM-related Stakeholders

Advanced Lifesciences National Technology Cluster / Cluster Nazionale Scienze della Vita	ALISEI	Cluster	https://www.clusteralisei.it/	
Department for Regional Affairs and Autonomies / Dipartimento per gli Affari Regionali e le Autonomie		Policy	http://www.affariregionali.it/	national policy regional affairs
ELIXIR Italy		Infrastructure	https://elixir-italy.org/	
Italian Association for the Development of Biotechnology / Associazione nazionale di Federchimica per lo svil	Assobiotec	Cluster	https://assobiotec.federchimica.it/en	
Italian Institute for Technology / Istituto Italiano di Tecnologia	IIT	Research	https://www.iit.it/	
Italian Medicines Agency	AIFA		https://www.aifa.gov.it/en/web/guest/home	
Italian National Agency for New Technologies, Energy and Sustainable Economic Development / Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile	ENEA	Innovation Agency	https://www.enea.it/en	
Italian National Cancer Institute Regina Elena		Research	https://www.ifo.it/	
Italian Network of Public Health Genomics / Rete Italiana per la Genomica sanità pubblica	GENISAP	Cluster	https://www.osservatoriomalattierare.it/news/attualita/4407-medicina-genomica-e-predittiva-litalia-dispone-di-un-piano-nazionale	
Ministry of Economical Development / Ministero Sviluppo Economico	MISE	Policy	https://www.mise.gov.it/index.php/it/	national policy economy

Ministry of Health / Ministero della Salute		Policy - Healthcare	http://www.salute.gov.it/portale/home.html	national policy health
Ministry of University and Research / Ministero dell'Università e della Ricerca	MUR	Policy - Research & Innovation	https://www.mur.gov.it/	national policy research
National Agency for Regional Health Services / Agenzia Nazionale per i Servizi Sanitari Regionali	AGENAS		https://www.agenas.gov.it/	national research collaboration with regions
National Institute of Biostructures and Biosystems Interuniversity Consortium	INBB		http://www.inbb.it/	
National Research Council of Italy / Consiglio Nazionale delle Ricerche	CNR	Research	https://www.cnr.it/en	

Memberships/Representations In EU/international projects or initiatives in the area of PM

16/05/2023   not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

ITC1   Piemonte /Piedmont

For PM-related competences see https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_a5eed5c56a664c18943b28b16abab7c5.pdf

Innovation Performance group (2021)	Moderate innovator +
Population Density (per km² (2019)	172
Total population (2019)	4356406
Proportion older 65y % (2019)	25,54%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	4P medicine: preventive, predictive, personalised and participatory
url RIS3 2021-2027	https://www.regione.piemonte.it/web/sites/default/files/media/documenti/2022-01/s3_2021_2027_completa.pdf
RIS3 priorities 2014-20	eHealth, personalized medicine, imaging, diagnostics, regenerative medicine, prosthetics, scientific instruments, pharmaceutical biotechnology, bioinformatics and ICT for health research, oncology, cardiovascular, CNS and metabolic diseases, innovative and targeted pharmaceutical approaches, bioengineering and surgical robotics, advanced biomedical solutions
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ITC1

PM-related Best Practices

Interregional Collaborations

CoNSENSo - COmmunity Nurse Supporting Elderly iN a changing Society	https://www.alpine-space.org/projects/consenso/en/home
EurOPDX	https://www.europdx.eu/
GenoMed4All	https://genomed4all.eu/
INNAXE - Inclusive & aligned INNovation Agendas across Europe	https://cordis.europa.eu/project/id/101070847
IRMI - Italian Infrastructure for Regenerative Medicine	http://www.clusteralisei.it/progetti/irmi/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
MIRRI - Microbial Resource Research Infrastructure	https://www.mirri.org/
MyPeBS - My Personal Breast Screening	https://www.mypebs.eu/
Oncological Network - Rete Oncologica Piemonte | Valle d'Aosta	http://www.reteoncologica.it/
S³martMed - The European Strategic Cluster Partnership for smart specialisation investments in medical technologies.	https://s3martmed.eu/

SAPHIRe Regional Report

S3P4PM - Smart Specialisation Platform for Personalised Medicine	https://s3platform.jrc.ec.europa.eu/personalised-medicine
SPIDIA for Personalized Medicine - Standardisation of generic Pre-analytical procedures for In-vitro DIAgnostics for Personalized Medicine	https://cordis.europa.eu/project/id/733112
Vanguard Initiative Smart Health Pilot Project	https://www.s3vanguardinitiative.eu/pilots/smart-health

Project

Biobanks, Cohorts and genomic initiatives

Biobank of the Regional Reference Center for Multiple Sclerosis	http://www.sanluigi.piemonte.it/enti/crsm.shtml

Digital Innovation Hubs

Bioindustry Park Silvano Fumero SpA - bioPmed innovation cluster	http://www.bioindustrypark.eu
Digital Innovation Hub Piemonte	http://www.dih.piemonte.it

Policy

FundingProgramme

PM-related Stakeholders

Bioindustry Park Silvano Fumero		Cluster	https://www.bioindustrypark.eu/?lang=en	
Centre for Cancer Epidemiology and Prevention in the Piedmont Region at the AOU Città della Salute e della Scienza	CPO-AOU		http://www.cittadellasalute.to.it/	

16/05/2023

Department Health / Assessorato Sanita		Policy - Healthcare	https://www.regione.piemonte.it/web/amministrazione/organizzazione/direzioni-settori-regionali/a1400a-sanita-welfare	regional policy health
Department Research and Innovation / Assessorato ricerca e innovazione		Policy - Research & Innovation	https://www.regione.piemonte.it/web/amministrazione/organizzazione/direzioni-settori-regionali/a19000-competitivita-sistema-regionale/a1907a-sistema-universitario-diritto-allo-studio-ricerca-innovazione-0	regional research & innovation
Maggiore della Carità di Novara hospitaluniversity		Research	https://www.maggioreosp.novara.it/	
Piedmont Region / Regione Piemonte		Policy	https://www.regione.piemonte.it/web/	
Piemonte Innovation Cluster	bioPmed	Cluster	https://www.biopmed.eu/	
University of Turin - Università degli studi di Torino	unito	Research	https://www.unito.it/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); European Regions Research and Innovation Network (ERRIN)

ITC3   Liguria

Innovation Performance group (2021)	Moderate innovator
Population Density (per km² (2019)	284
Total population (2019)	1550640
Proportion older 65y % (2019)	28,49%
Mountain, remote, island?	> 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Technologies to support public health and assist disability and ageing. Innovative medicines and therapeutic approaches, diagnostic systems, rehabilitation and assistance technologies.
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ITC3

PM-related Best Practices
Interregional Collaborations

CoNSENSo - COmmunity Nurse Supporting Elderly iN a changing Society	https://www.alpine-space.org/projects/consenso/en/home
MIRRI - Microbial Resource Research Infrastructure	https://www.mirri.org/

Project

Biobanks, Cohorts and genomic initiatives

Biological Resource Center IRCCS Policlinico San Martino Hospital	https://www.ospedalesanmartino.it/ricerca-scientifica/introduzione-
Cell line and DNA Biobank from patients affected by Genetic Diseases	https://www.gaslini.org/ricerca-scientifica/attivita/biobanche/biobanca-di-
Genetic Bank Galliera	https://www.gaslini.org/reparti/laboratorio-genetica-umana/
Integrated tissue-genomic biobank	https://www.gaslini.org/ricerca-scientifica/attivita/biobanche/

SAPHIRe Regional Report

16/05/2023 not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Digital Innovation Hubs

Digital Innovation Hub Liguria	http://www.dihliguria.it
PARSEC HUB GENOVA	http://www.parsec-hub.eu

Policy

FundingProgramme

PM-related Stakeholders

IRCCS Ospedale Policlinico San Martino	USMI	Research	https://www.ospedalesanmartino.it/ricerca-scientifica.html	IRCCS (Institute of Hospitalization and Scientific Care) by the Ministry of Health in the disciplines of Oncology and Neuroscience
Regione Liguria		Policy - Research & Innovation	https://www.regione.liguria.it/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

SAPHIRe Regional Report

ITC4   Lombardia / Lombardy

Innovation Performance group (2021)	Strong innovator -
Population Density (per km² (2019)	436
Total population (2019)	10060574
Proportion older 65y % (2019)	22,59%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 innovative health devices and products / advanced remote diagnostic systems, telemedicine and miniaturised devices for rapid portable diagnostics / advanced diagnostics and companion diagnostics systems based on omics technologies including through the development of predictive technologies and big data, machine learning, artificial intelligence (AI)-based platforms / telehealth, telemonitoring and teleassistance / new innovative drugs of biological origin or derived from biomolecular approaches, for the treatment of rare diseases, transmissible and non-communicable diseases / innovative and advanced therapies in the fields of antibiotics, immunotherapy, advanced cell therapies gene therapies, Hadrontherapy, particle radiotherapies, personalised radiotherapies, deep brain stimulation for stimulation for chronic pain, combinations of therapies and smart medical devices (i.e. digital therapeutics) / regenerative medicine / Virtual and Augmented Reality technologies applied to functional and cognitive rehabilitation

url RIS3 2021-2027 https://www.s3.regione.lombardia.it/wps/wcm/connect/9bda0161-05f0-49a3-91f5-d065f3c14717/DGR+XI_4155_2020_S3+2021_2027.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-9bda0161-05f0-49a3-91f5-

RIS3 priorities 2014-20 Healthcare Industry.

url RIS3 2014-2020 https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ITC4

PM-related Best Practices
Interregional Collaborations

B1MG - Beyond 1 Million Genomes Pan-European initiative to create genome-based health data infrastructure	https://b1mg-project.eu/
BeWell – Blueprint Alliance for a Future Health Workforce Strategy on Digital and Green Skills	https://ehma.org/bewell-blueprint-alliance-for-a-future-health-workforce-strategy-on-digital-and-green-skills/
ERA-NET TRANSCAN-2 Aligning national/regional translational cancer research programmes and activities	https://www.era-learn.eu/network-information/networks/transcan-2
ERA-NET TRANSCAN-3	https://www.era-learn.eu/network-information/networks/transcan-3
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/
EurOPDX	https://www.europdx.eu/

GenoMed4All	https://genomed4all.eu/
IRMI - Italian Infrastructure for Regenerative Medicine	http://www.clusteralisei.it/progetti/irmi/
KATY - AI-Empowered Personalised Medicine System to Improve Cancer Treatments	https://katy-project.eu/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
PERMIT - PERsonalised Medicine Trials	https://permit-eu.org/
PROPHET - a PeRsOnalized Prevention roadmap for the future HEalThcare	https://cordis.europa.eu/project/id/101057721
Regions4PerMed	https://www.regions4permed.eu/
SPIDIA for Personalized Medicine - Standardisation of generic Pre-analytical procedures for In-vitro DIAgnostics for Personalized Medicine	https://cordis.europa.eu/project/id/733112
TITTAN - (Network for Technology,Innovation and Translation in Ageing	https://www.interregeurope.eu/tittan/

Project

Biobanks, Cohorts and genomic initiatives

Biobank for research Bruno Boerci	https://www.icsmaugeri.it/per-i-ricercatori/laboratori-ricerca/laboratorio-di-
Biobank of skeletal muscle peripheral nerve DNA and cell cultures	https://www.policlinico.mi.it/reparti/44/neurologia-malattie-neuromuscolari-e-
Biological Bank of Ovarian Tumors IRCCS-Mario Negri Institute	https://www.marionegri.it/eng/biological-resources-center
Biological Bank Screening AAA - Varese	http://www4.uninsubria.it/on-line/home/naviga-per-tema/ricerca-
Biological Resource Center - San Raffaele Hospital	https://research.hsr.it/en/divisions/experimental-oncology/clinical-onco-
CCPP Biobank	https://www.ccppdezza.it/ricerca/biobanca/
Cell line and DNA Bank of Genetic Movement Dis and Mitochondrial Dis - Besta Institute Milano, Italy	http://catalogue.rd-connect.eu/web/bank-for-the-diagnosis-and-research-of-movement-disorders-mdb-fondazione-i.r.c.c.s-istituto-neuro/bb_home
Cell lines and DNA bank of Pediatric Movement Disorders and Neurodegenerative Diseases	http://www.mitopedia.org/eng/chisiamo.php
DNA and Cells Biobank from Patients with Neurodegenerative and metabolic Diseases	https://www.istituto-besta.it/
Humanitas Hospital Biological Resources Center	https://www.humanitas.it/
IEO Biobank and Biomolecular Resource Infrastructure (IBBRI)	https://www.ieo.it/en/RESEARCH/Research-Support/Clinical-Research-
INGI-Val Borbera	https://research.hsr.it/en/index.html
Institutional Biobank of cryopreserved tissues and liquid biopsies	https://www.istitutotumori.mi.it/
International registry of bone fragility fractures in the young	https://www.orpha.net/consor/cgi-
IRCCS Biobank Centro San Giovanni Di Dio Fatebenefratelli	https://www.fatebenefratelli.it/it/ricerca_irccs-brescia

Mario Negri Institute Biological Resources Center	https://www.marionegri.it/eng/biological-resources-center
Neuromuscular Disease Biobank "Cells, tissues and DNA from patients with neuromuscular diseases", Ist. Neurologico C. Besta	https://www.istituto-besta.it/
Neuropathology	https://www.istituto-besta.it/
Parkinson Institute Biobank	https://www.parkinson.it/banca-dna.html
Plasma and DNA from patients with ischemic cerebrovascular & neurological diseases	https://www.istituto-besta.it/
POLI-MI Biobank	https://www.policlinico.mi.it/eng/care
Residents in an area contaminated with TCDD	https://www.asst-monza.it/ospedale-di-desio
The Besta Criobank for Brain Tumors	https://www.istituto-besta.it/
VAS-EBVD (European Biobank on Vascular Diseases)	https://www.vas-int.net/biobank-ebvd-ebpp/

Digital Innovation Hubs

AFIL - Lombardy Intelligent Factory Association	http://www.afil.it/
ComoNExT Innovation Hub	https://www.comonext.it/
Digital Innovation Hub Lombardia	http://www.dihlombardia.com
innovation experience HUB (InnexHUB)	https://www.innexhub.it
PARSEC HUB MILAN	http://www.parsec-hub.eu
PID BERGAMO SVILUPPO	https://www.bergamosviluppo.it/sito/sviluppo-e-innovazione/pid-punto-impresa-digitale.html
Politecnico di Milano	https://www.polimi.it/en/home/

Policy

FundingProgramme

Collaborative projects Call 2015	http://www.frrb.it/it/bando-per-la-valorizzazione-della-ricerca-biomedica
Collaborative projects Call 2018	http://www.frrb.it/it/bando-progetti-di-rete--ii-edizione
EJP Rare Disease	http://www.ejprarediseases.org
FRRB Early Career Award	http://www.frrb.it
Special Call 2018 Asbestos related diseases	http://www.frrb.it/it/patologie-amianto-correlate
TRANSCAN 2	https://www.transcanfp7.eu/

PM-related Stakeholders

European Institute of Oncology / Istituto Europeo di Oncologia	IEO	Research	https://www.ieo.it/en/	
Fondazione IRCCS Istituto Nazionale dei Tumori		Research	https://www.istitutotumori.mi.it/	
IRCCS Humanitas Research Hospital		Research	https://www.humanitas.it/	Partner GenoMed4All
Lombardy Cluster Technologies for Living Environments		Cluster	https://cluster.techforlife.it/	
Lombardy Region / Regiona Lombardia		Policy - Research & Innovation	https://www.en.regione.lombardia.it/wps/portal/site/en-regione-lombardia	
Lombardy's Life Sciences Cluster		Cluster	http://www.lombardialifesciences.it/en/	
OpenZone			https://www.openzone.it/en	scientific campus entirely dedicated to Health leader in innovation and research in the field of the Life Sciences
PTP Science Park		Research	https://www.ptp.it/en/ricerca-e-sviluppo	
Regional Foundation for Biomedical Research / Fondazione Regionale per la Ricerca Biomedica	FRRB	Research	http://www.frrb.it/	
University of Milan / Università degli Studi di Milano Statale	UMIL	Research	https://www.unimi.it/en	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); ICPerMed; European Regions Research and Innovation Network (ERRIN)

ITF1   Abruzzo

Innovation Performance group (2021)	Moderate innovator
Population Density (per km² (2019)	120
Total population (2019)	1311580
Proportion older 65y % (2019)	23,82%
Mountain, remote, island?	> 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Advanced technologies for health and living care services (life science). Cutting-edge (bio and nano materials) and industry 4.0 technologies for a more competitive health care system based on tailored services and products, effective prevention and a next-practice approach. Advanced productive processes and integrated services for a lower environmental impact

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ITF1

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

SAPHIRe Regional Report

Digital Innovation Hubs

Match 4.0 Abruzzo DIH	http://www.match40.net/

Policy

FundingProgramme

PM-related Stakeholders

Regione Abruzzo		Policy - Research & Innovation	https://www.regione.abruzzo.it/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

ITF2   Molise

Innovation Performance group (2021)	Moderate innovator
Population Density (per km² (2019)	68
Total population (2019)	305617
Proportion older 65y % (2019)	24,63%
Mountain, remote, island?	> 50 % of population live and > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Activities associated to health and well-being, including e-health, ambient assisted living, healthy ageing.
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ITF2

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Neuromed Biobanking Center	http://www.neuromed.it/biobanking-centre/

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Molise Regional Development Agency / Agenzia regionale per lo sviluppo del Molise		Innovation Agency	http://www.sviluppoitaliamolise.com/?PageID=-1	
Regione Molise		Policy - Research & Innovation	http://www3.regione.molise.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/1	

Memberships/Representations In EU/international projects or initiatives in the area of PM

ITF3   Campania

Innovation Performance group (2021)	Moderate innovator
Population Density (per km² (2019)	422
Total population (2019)	5801692
Proportion older 65y % (2019)	18,81%
Mountain, remote, island?	> 50 % of population live and > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	Diagnostics; Innovative therapeutic approaches, Medical devices; ICT for biotechnologies and human health / New Materials and Nanotechnologies / New technologies and solutions to improve patients care, diagnosis and treatment
url RIS3 2021-2027	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ITF3
RIS3 priorities 2014-20	Producing healthy and safe food products with adequate societal value. New technologies and solutions to improve patients care, diagnosis and treatment. Synthetic (system) biology; Functional foods and nutraceuticals, Food packaging; Sustainable management of resources; Diagnostics; Innovative therapeutic approaches, Medical devices; ICT for biotechnologies and human health.
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ITF3

PM-related Best Practices

Interregional Collaborations

Bio Open Lab	https://researchitaly.mur.gov.it/en/2022/04/11/bio-open-lab-the-distributed-research-infrastructure-that-takes-italy-into-the-future-of-predictive-medicine/
Gen.era	https://www.generaproject.com/
IndividualizedPaediatricCure: Cloud-based virtual-patient models for precision paediatric oncology	https://cordis.europa.eu/project/id/826121

Project

Biobanks, Cohorts and genomic initiatives

Bank for the Diagnosis and Research on Neuromuscular Disorders (NHMGB), Cardiomyology and Medical Ge	http://catalogue.rd-connect.eu/web/bank-for-the-diagnosis-and-research-on-neuromuscular-disorders-nhmgb-cardiomyology-and-medical-ge/bb_home
Bank of Biological Samples CEINGE-Advanced Biotechnology scarl	https://www.ceinge.unina.it/index.php/ ;
Biobank animal models experimental tumors	
Biological Resource Center -IGB-CNR-Incontinentia Pigmenti Genetic Biobank	http://www.igb.cnr.it/ipgb/
Biological Resources Center-Institute of Genetics and Biophysics CNR	http://www.igb.cnr.it/centro-di-risorse-biologiche
Campania registry of congenital anomalies - contributes to the EUROCAT network	https://www.orpha.net/consor/cgi-
Genetic Biobank for Rare Diseases Myopathies and Cardiomyopathies	https://www.malattierare.org/UO/cardiomiologia.asp
Incontinentia Pigmenti Genetic BioBank	http://www.igb.cnr.it/ipgb/
Institutional Biobank	https://newportal.istitutotumori.na.it/biobanca/
RIAF: Fanconi's Anemia Italian Registry	https://www.orpha.net/consor/cgi-
SDN Biobank	https://www.sdn-napoli.it/irccs-sdn/biobanca-sdn/

Digital Innovation Hubs

C.R.E.A.T.E. Consorzio di Ricerca per l'Energia, l'Automazione e le Tecnologie dell'Elettromagnetismo	https://www.create.unina.it
Campania Digital Innovation Hub	http://www.campaniadih.it/
Cybermate - Your Digital Innovation Hub	https://www.cybermate.org/en/
PARSEC HUB NAPOLI	http://www.parsec-hub.eu

Policy

FundingProgramme

PM-related Stakeholders

Campania Bioscience		Cluster	https://www.campaniabioscience.it/	
Regional Healthcare Society / Società Regionale per la Sanità			http://www.soresa.it/	
Regione Campania		Policy - Research & Innovation	http://www.regione.campania.it/	

Technapoli Science and Technology Park		Infrastructure	http://www.italianbioparks.it/services.html?sobi2Task=sobi2Details&catid=37&sobi2Id=9	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR)

Technapoli Science and Technology Park		Infrastructure	http://www.italianbioparks.it/services.html?sobi2Task=sobi2Details&catid=37&sobi2Id=9	

ITF4   Puglia

Innovation Performance group (2021)	Moderate innovator -
Population Density (per km² (2019)	207
Total population (2019)	4029053
Proportion older 65y % (2019)	22,08%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Bio medicine. Life science and biotechnology.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ITF4

PM-related Best Practices
Interregional Collaborations

Bio Open Lab	https://researchitaly.mur.gov.it/en/2022/04/11/bio-open-lab-the-distributed-research-infrastructure-that-takes-italy-into-the-future-of-predictive-medicine/

Project

Biobanks, Cohorts and genomic initiatives

Bari Institutional Biobank	https://www.sanita.puglia.it/web/irccs-irccs-giovanni-paolo-ii_det/-
Genetic Biobank from patients with Williams-Beuren syndrome and other genomic disorders	https://www.orpha.net/consor/cgi-bin/ResearchTrials_RegistriesMaterials.php?lng=EN&data_id=70666&Registry
Genomic and Genetic Disorders Biobank of patients with Williams Beuren Syndrome and other genomic syndromes	https://www.operapadrepio.it/it/ricerca-scientifica/gruppi-di-ricerca/genetica-medica.html

SAPHIRe Regional Report

not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Digital Innovation Hubs

Apulia CPS/IoT Hub for Regional Digital Manufacturing SMEs	http://www.dihapulia.it/web/
CETMA - Technologies Design and Materials European Research Centre	http://www.cetma.it/
MEDISDIH - Apulian Mechatronics Technological Cluster and Digital Innovation Hub	http://www.medisdih.it/wp/en/services-2/
MEDISDIH - Apulian Mechatronics Technological Cluster and Digital Innovation Hub	http://www.medisdih.it
PARSEC HUB BARI	http://www.parsec-hub.eu

Policy

FundingProgramme

PM-related Stakeholders

Regione Puglia		Policy	https://www.regione.puglia.it/	
Strategic Agency for Technology and Innovation of Puglia / Agenzia strategica per la tecnologia e l'innovazione della Puglia	ARTI	Innovation Agency	http://www.arti.puglia.it/	
Strategic Regional Agency for Health and Social Care of Puglia	AReSS Puglia	Policy - Healthcare	https://www.sanita.puglia.it/web/aress	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN); European Regional and Local Health Authorities (EUREGHA)

ITF5   Basilicata

Innovation Performance group (2021)	Moderate innovator -
Population Density (per km² (2019)	56
Total population (2019)	562869
Proportion older 65y % (2019)	22,99%
Mountain, remote, island?	> 50 % of population live and > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	Active & healthy ageing: technologies for active ageing and home care / E-health, advanced diagnostics, medical devices and mini-invasiveness / Regenerative, predictive and personalised medicine / Biotechnology, bioinformatics and pharmaceutical development / Nutraceutics, Nutrigenomics and Functional Foods
url RIS3 2021-2027	http://europa.basilicata.it/2021-27/wp-content/uploads/2021/01/La_buona_governance_SNSI-2021-2027_10dic2020.pdf
RIS3 priorities 2014-20	Large research infrastructure and innovative software for big data. Bio based and integrated economy. Advanced water management solutions and research applied to genome for increasing the sustainability of agri food. New marketing models for promoting the development of a healthy food industry and market.
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ITF5

PM-related Best Practices
Interregional Collaborations

Regions4PerMed	https://www.regions4permed.eu/

Project

SAPHIRe Regional Report

not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Biobanks, Cohorts and genomic initiatives

IRCCS-CROB BASILICATA BIOBANK	https://www.crob.it/crob/home.jsp

Digital Innovation Hubs

Digital Innovation Hub Basilicata	http://www.confindustria.basilicata.it/

Policy

FundingProgramme

PM-related Stakeholders

Lucan Bioeconomy Cluster / Cluster Lucano Bioecono	CLB	Cluster	https://www.clusterlucanobioeconomia.org/	
Regione Basilicata		Policy - Research & Innovation	https://www.regione.basilicata.it/giunta/site/giunta/home.jsp	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

SAPHIRe Regional Report

ITF6   Calabria

Innovation Performance group (2021)	Emerging innovator +
Population Density (per km² (2019)	126
Total population (2019)	1947131
Proportion older 65y % (2019)	21,59%
Mountain, remote, island?	Mostly mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   New technologies and medical devices to improve patients care, diagnosis and treatment. - Omics for a better knowledge of complex pathologies and personalised medicine. New diagnostic methods for chronic and complex diseases and new pharmaceutical formulations.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ITF6

PM-related Best Practices

Interregional Collaborations

Regions4PerMed	https://www.regions4permed.eu/

Project

Biobanks, Cohorts and genomic initiatives

SAPHIRe Regional Report

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Biotecnomed		Cluster	https://www.biotecnomed.it/en/	
Magna Græcia University of Catanzaro	UMG	Research	https://web.unicz.it/it/	
Regione Calabria		Policy - Research & Innovation	http://www.regione.calabria.it/website/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

ITG1   Sicilia /Sicily

Sicily is an island in the Mediterranean Sea and one of 20 regions of Italy. It is one of the five autonomous Italian regions and is referred to as Regione Siciliana.

Innovation Performance group (2021)	Moderate innovator -
Population Density (per km² (2019)	192
Total population (2019)	4999891
Proportion older 65y % (2019)	21,20%
Mountain, remote, island?	Island Mostly mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	New technologies and medical devices to improve patients care, diagnosis and treatment. New diagnostic methods for chronic and complex diseases New pharmaceutical formulations and products. Regenerative medicine. Diagnostics and biomedical devices. Drug discovery, delivery e quality by design Digital transformation for healthcare (e-health).
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ITG1

PM-related Best Practices
Interregional Collaborations

I.T.A.M.A. - ICT Tools for the diagnosis of Autoimmune diseases in the Mediterranean Area	https://keep.eu/projects/20522/ICT-Tools-for-the-diagnosis-EN/
Regions4PerMed	https://www.regions4permed.eu/
ULTRAPLACAD - ULTRAsensitive PLAsmonic devices for early CAncer Diagnosis	https://ultraplacad.eu/

Project

Biobanks, Cohorts and genomic initiatives

Biobank IOM	http://www.grupposamed.com/iom-ricerca
fetal mesenchymal stem cell bank	https://www.ospedaliriunitipalermo.it/unitaop_malattie_rare_del_sangue_e_d
Hematopoietic stem cells	https://www.ospedaliriunitipalermo.it/unitaop_ematologia_ad_indirizzo_oncol
ISMAC: Sicilian registry of congenital anomalies - contributes to the EUROCAT network	https://www.orpha.net/consor/cgi-bin/ResearchTrials_RegistriesMaterials.php?lng=EN&data_id=27780&Registry
Research Biobank of Sciacca	http://www.aspag.it/index.php/il-distretto-ospedaliero/ospedale-di-

Digital Innovation Hubs

PARSEC HUB CATANIA	http://www.parsec-hub.eu

Policy

Digital Health	http://pti.regione.sicilia.it/portal/page/portal/PIR_PORTALE/PIR_Iniziative/Agenda_Digitale_Sicilia/Sanita%2B%2BDigitale%5B1%5D.pdf
Digital Region	http://pti.regione.sicilia.it/portal/page/portal/PIR_PORTALE/PIR_Iniziative/Agenda_Digitale_Sicilia/Regione%2BDigitale%5B1%5D.pdf
Sicily Digital Agenda	http://pti.regione.sicilia.it/portal/page/portal/PIR_PORTALE/PIR_Iniziative/Agenda_Digitale_Sicilia/Agenda%2BDigitale%2BSicilia%5B1%5D.pdf

FundingProgramme

PM-related Stakeholders

Kazaam Lab		Corporate - IT	http://www.kazaamlab.com/	software biomedical bigdata
Oncological Institute of the Mediterranean / Instituto Oncologica del Mediterraneo	IOM	Research	https://www.grupposamed.com/it/istituto-oncologico-del-mediterraneo	
Planning Department of the Presidency of the Sicilian Region / Dipartimento Programmazione della Presidenza della Regione Siciliana		Policy	https://www.euroinfosicilia.it/amministrazione-regionale/dipartimento-programmazione/	
Regional Authority for Technological Innovation / Autorità Regionale per l'Innovazione Tecnologica		Policy - Research & Innovation	http://pti.regione.sicilia.it/portal/page/portal/PIR_PORTALE/PIR_LaStrutturaRegionale/PIR_AssessoratoEconomia/PIR_UffCoordSistemiInformativi	
Regional Health Department / Assessorato regionale della salute		Policy - Healthcare	http://pti.regione.sicilia.it/portal/page/portal/PIR_PORTALE/PIR_LaStrutturaRegionale/PIR_AssessoratoSalute	

Science and Technology Park of Sicily / Parco Scientifico e Tecnologico della Sicilia	PSTS	Infrastructure	https://www.clusterspring.it/luoghi/parco-scientifico-e-tecnologico-della-sicilia-s-c-p-a-2/	
Università degli Studi di Catania		Research	https://www.unict.it/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Science and Technology Park of Sicily / Parco Scientifico e Tecnologico della Sicilia	PSTS	Infrastructure	https://www.clusterspring.it/luoghi/parco-scientifico-e-tecnologico-della-sicilia-s-c-p-a-2/	
Università degli Studi di Catania			https://www.unict.it/	

ITG2   Sardegna / Sardinia

Innovation Performance group (2021)	Moderate innovator -
Population Density (per km² (2019)	68
Total population (2019)	1639591
Proportion older 65y % (2019)	23,76%
Mountain, remote, island?	Island Mostly mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 active and healthy ageing / telemedicine / biomedicine

url RIS3 2021-2027   http://www.sardegnaprogrammazione.it/documenti/35_633_20210318105350.pdf

RIS3 priorities 2014-20   New technologies and medical devices to improve patients care, diagnosis and treatment. - Omics and biotechnologies for a better knowledge of complex pathologies and personalised medicine. Bioinformatics analysis. New diagnostic methods for chronic and complex diseases and new pharmaceutical formulations. Pharmacological and non-pharmacological treatments for health care, cosmetics and human well-being. Biomedical technologies for the optimization of health surveillance processes, immunoprofilaxis and therapy in veterinary medicine.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ITG2

PM-related Best Practices
Interregional Collaborations

Project

SAPHIRe Regional Report

not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Sardinia Region / Regione Sardegna		Policy - Research & Innovation	https://www.regione.sardegna.it/regione/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

ITH1   Provincia Autonoma di Bolzano / Bozen / Autonomous Province of Bolzano

Innovation Performance group (2021)	Moderate innovator +
Population Density (per km² (2019)	72
Total population (2019)	531178
Proportion older 65y % (2019)	19,59%
Mountain, remote, island?	> 50 % of population live and > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 e-health and telemedicine, precision health, biomedicine, high-altitude medicine and alpine emergency medicine

url RIS3 2021-2027   https://www.provinz.bz.it/innovation-forschung/innovation-forschung-universitaet/downloads/Innovation_und_Forschung_Suedtirol_2030_RIS3.pdf

RIS3 priorities 2014-20   New technologies and solutions to improve patients care, diagnosis and treatment. Health and well-being, health tourism, e-health, natural and organic products (cosmetics, etc.)

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ITH1

PM-related Best Practices
Interregional Collaborations

Vanguard Initiative Smart Health Pilot Project	https://www.s3vanguardinitiative.eu/pilots/smart-health

Project

Biobanks, Cohorts and genomic initiatives

Cooperative Health Research in South Tyrol Study Biobank	https://it.chris.eurac.edu/

Digital Innovation Hubs

Digital Innovation Hub South Tyrol	http://www.noi.bz.it

Policy

FundingProgramme

PM-related Stakeholders

Autonomous Province of Bolzano / Provincia autonoma di Bolzano		Policy	https://www.provincia.bz.it/it/default.asp	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

ITH2   Provincia Autonoma di Trento / Trentino / Autonomous Province of Trento

Trentino, officially the Autonomous Province of Trento, is an autonomous province of Italy, in the country's far north with a population of 500, 000 people. The regions' S3 priorities include a focus on technologies, products and services for healthy living: this includes cross-sector innovation area: new technologies and solutions for smart cities and communities, patients care, diagnosis and treatment, cultural and tourism activities and enhanced ecosystem services. Other S3 priorities include providing healthy and safe food (agri-food), new technologies for energy and the environment and mechatronics. For PM-related competences see https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_21b47367c3f24f14adf916e16a2b59ac.pdf

Innovation Performance group (2021)	Strong innovator -
Population Density (per km² (2019)	88
Total population (2019)	541098
Proportion older 65y % (2019)	22,06%
Mountain, remote, island?	> 50 % of population live and > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 health and well-being / personalised medicine patient's genetic profile together with lifestyle and environmental factors/ molecular
molecular diagnostics, imaging and analysis of data and models (including for example AI approaches, machine learning and bioinformatics) / iotechnology applied to health (red biotechnology), medical technologies and devices (medtech), and drug discovery, digital therapeutics, omics technologies (GPTA or Genomics, Proteomics and Enabling Technologies) /smart healthcare / Preventive medicine / Telemedicine / Advanced diagnostics

url RIS3 2021-2027   https://ita.calameo.com/read/00019535661bea544971f

RIS3 priorities 2014-20   Cross-sector innovation area: new technologies and solutions for smart cities and communities, patients care, diagnosis and treatment

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ITH2

PM-related Best Practices

Interregional Collaborations

DIALOG - Dialog for Innovation And LOcal Growth	http://www.interregeurope.eu/dialog/
digital Life4CE	https://www.interreg-central.eu/Content.Node/digitalLIFE4CE.html
EUVECA - European Platform for Vocational Excellence in Health Care	https://ehma.org/euveca-european-platform-for-vocational-excellence-in-health-care/
Regions4PerMed	https://www.regions4permed.eu/
S3 ClusSport	https://s3platform-legacy.jrc.ec.europa.eu/sport
S3P4PM - Smart Specialisation Platform for Personalised Medicine	https://s3platform.jrc.ec.europa.eu/personalised-medicine

SAPHIRe Regional Report

not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Vanguard Initiative Smart Health Pilot Project	https://www.s3vanguardinitiative.eu/pilots/smart-health
WideHealth - Widening Research on Pervasive and eHealth	https://cordis.europa.eu/project/id/952279

Project

Salute +		https://www.trentinosalute.net/Temi/Innovazione-e-ricerca/Trentinosalute
TBDTHC Training Blueprint for the Digital Transformation of Health and Care		http://trainblue.eu/
TREC Diabete		https://www.ansa.it/trentino/notizie/2019/03/15/curare-il-diabete-con-una-app-sperimentazione-a-trento_c9aadf93-61d8-4737-8d6e-55956891f27c.html
TREC Digital Personalized Health Record		https://www.trentinosalute.net/Temi/Innovazione-e-ricerca/TreC-la-cartella-clinica-del-cittadino

Biobanks, Cohorts and genomic initiatives

Trentino Biobank	http://www.tissuebank.it/biobanca.asp

Digital Innovation Hubs

Trentino Digital Innovation Hub	https://dih-taa.eu/en/

Policy

Policy doc : "Project approval for Personalized Digital Health Record"	http://www.delibere.provincia.tn.it/scripts/gethtmlDeli.asp?Item=0&Type=HTML
Project approval for Salute + (App to monitor a healthy lifestyle)	http://trento.coni.it/images/trento/DdG_535_del_29_marzo_2018_Trentino_Salute_DEFINITIVA_PUBBLICATA_SITO_PAT.pdf
Trentino Salute +: here is the App to live healthier	https://www.ladige.it/news/cronaca/2019/04/10/trentino-salute-ecco-app-vivere-pi-sani

FundingProgramme

PM-related Stakeholders

Autonomous Province of Trento / Provincia Autonoma di Trento		Policy	http://www.provincia.tn.it/	
Department Economic Development, Research & Labor / Dipartimento Sviluppo economico, ricerca e lavoro		Policy	https://trasparenza.provincia.tn.it/archivio13_strutture-organizzative_0_3622_65_1.html	regional
Department of Education and Culture of the Autonomous Province of Trento / Dipartimento Istruzione e cultura della Provincia Autonoma di Trento			https://www.vivoscuola.it/Il-Dipartimento/Dipartimento-istruzione-e-cultura	regional
Department of Health and Social Solidarity of the Autonomous Province of Trento / Dipartimento Salute e politiche sociali della Provincia Autonoma di Trento			https://www.trentinosalute.net/	regional
Fondazione Bruno Kessler	FBK		https://www.fbk.eu/en/	
Fondazione Edmund Mach	FEM	Research	https://www.fmach.it/	regional
Innovation Hub Innovazione Trentino	HIT		https://www.trentinoinnovation.eu/en/home/	innovation
Provincial Agency for Health Services / Azienda Provinciale per i Servizi Sanitari	APSS		https://www.apss.tn.it/	regional
Provincial Agency for the promotion of economic activities Trentino / Agenzia provinciale per l'incentivazione delle attività economiche	APIAE		http://www.apiae.provincia.tn.it/	regional
School of Specific Training in General Medicine / Scuola di formazione specifica in medicina general			https://www.scuolamgtn.it/	
Trentino Development Agency / Trentino Sviluppo			https://trentinosviluppo.it/	regional
TrentinoSalute4.0			https://trentinosalutedigitale.com/	regional competence centre
Trento Proton Therapy Centre / Centro di protonterapia di Trento			https://protonterapia.provincia.tn.it/eng	regional
University of Trento		Research	https://www.unitn.it/	regional

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

ITH3   Veneto / Venetia

Innovation Performance group (2021)	Strong innovator -
Population Density (per km² (2019)	282
Total population (2019)	4905854
Proportion older 65y % (2019)	22,87%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   New technologies for sustainable living. Cross-sector innovation area: new technologies for sustainable buildings and cities, security and health.Well-being in living environment, smart and sustainable cities and buildings, security and health (technologies for independent and active life), cultural heritage regeneration.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ITH3

PM-related Best Practices

Interregional Collaborations

Clinical trial of autologous adipose-derived mesenchymal stromal cells (ASC) in the treatment of mild to moderate osteoarthritis	https://cordis.europa.eu/project/id/643809
GenoMed4All	https://genomed4all.eu/
HEALTHNET - Building integrated health care through the use of ICT solutions in home care	https://keep.eu/projects/18244/Building-integrated-health--EN/
KATY - AI-Empowered Personalised Medicine System to Improve Cancer Treatments	https://katy-project.eu/

Project

SAPHIRe Regional Report

Biobanks, Cohorts and genomic initiatives

ARC-Net (Applied Research on Cancer)	https://arcnetit.wordpress.com/
Banca degli Occhi del Veneto ONLUS Foundation	https://www.fbov.org/
Biobank Rare Diseases and Neuro Rehabilitation	https://hsancamillo.it/biobanca/
Italian Registry for patients with Shwachman Diamond Syndrome	https://www.orpha.net/consor/cgi-
Neuromuscular Bank of Tissues and DNA	
North-east Italy registry of neurofibromatosis	https://www.orpha.net/consor/cgi-
North-East of Italy registry of congenital anomalies - contributes to the EUROCAT network	https://www.orpha.net/consor/cgi-bin/ResearchTrials_RegistriesMaterials.php?lng=EN&data_id=28632&Registry
Pediatric Oncological Biological Bank	http://cittadellasperanza.org/biobanca-pediatrica-risorsa-preziosa-per-la-
Registry for Wolfram syndrome, Alström syndrome, Bardet-Biedl syndrome and other rare diabetes syndromes - contributing to EURO-WABB	https://www.orpha.net/consor/cgi-bin/ResearchTrials_RegistriesMaterials.php?lng=EN&data_id=93988&Registry
Surgical Clinic I Tumor Tissue Biobank	http://www.clinicachirurgica.it/attivita-di-ricerca/laboratorio-di-ricerca/

Digital Innovation Hubs

DIGITAL INNOVATION HUB BELLUNO DOLOMITI	https://digitalhub.belluno.it/
Digital Innovation Hub Vicenza	https://www.digitalinnovationhubvicenza.it
Galileo Digital Innovation Hub	https://www.galileovisionarydistrict.it/galileo-digital-innovation-hub/
SPEEDHUB	https://www.fondazionespeedhub.it
t2i - DIH Triveneto	https://www.t2i.it/dih

Policy

FundingProgramme

PM-related Stakeholders

Local Health Authority	AULSS 1 Dolomiti	Policy	http://www.aulss1.veneto.it/	
Personal Genomics		Corporate - Medtech	https://www.personalgenomics.it/	

Regional Center for Biomarkers / Centro Regionale Specializzato per i Biomarcatori Diagnostici, Prognostici e Predittivi	CRIBT	Research	https://www.yumpu.com/en/document/view/51074229/regional-center-for-diagnostic-prognostic-and-predictive-biomarkers	
Regione Veneto		Policy	https://www.regione.veneto.it/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN); European Regional and Local Health Authorities (EUREGHA)

Regional Center for Biomarkers / Centro Regionale Specializzato per i Biomarcatori Diagnostici, Prognostici e Predittivi	CRIBT	Research	https://www.yumpu.com/en/document/view/51074229/regional-center-for-diagnostic-prognostic-and-predictive-biomarkers	

ITH4   Friuli-Venezia Giulia

Innovation Performance group (2021)	Strong innovator -
Population Density (per km² (2019)	160
Total population (2019)	1215220
Proportion older 65y % (2019)	26,16%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027   https://www.regione.fvg.it/rafvg/cms/RAFVG/fondi-europei-fvg-internazionale/S3_FVG/FOGLIA05/

RIS3 priorities 2014-20   Smart health / New technologies and medical devices to improve patients care, diagnosis and treatment. New diagnostic methods, biomedical technologies, bioinformatics, ambient assisted living.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ITH4

PM-related Best Practices

Interregional Collaborations

Bio Open Lab	https://researchitaly.mur.gov.it/en/2022/04/11/bio-open-lab-the-distributed-research-infrastructure-that-takes-italy-into-the-future-of-predictive-medicine/
HEALTHNET - Building integrated health care through the use of ICT solutions in home care	https://keep.eu/projects/18244/Building-integrated-health--EN/
ITHACA - InnovaTion in Health And Care for All	https://www.interregeurope.eu/ithaca/
SPIDIA for Personalized Medicine - Standardisation of generic Pre-analytical procedures for In-vitro DIAgnostics for Personalized Medicine	https://cordis.europa.eu/project/id/733112

Project

SAPHIRe Regional Report

not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Biobanks, Cohorts and genomic initiatives

CRO-Biobank	http://www.ricerca-cro.sanita.fvg.it/it/servizi_al_cittadino/biobanca.html

Digital Innovation Hubs

AREA Science Park - IP4FVG	http://www.ip4fvg.it
DIEX - Digital Experience	http://www.diex.it
DIH Udine	http://www.dih.ud.it

Policy

FundingProgramme

PM-related Stakeholders

Area Science Park Research, Innovation and Business		Research	https://www.areasciencepark.it/	National research body
Area Science Park's Genomics and Epigenomics Platform		Infrastructure	https://www.areasciencepark.it/piattaforme-tecnologiche/	
Cluster Smart Health of Friuli Venezia Giulia	CBM	Cluster	https://www.cbm.fvg.it/en	
Regional Authority of Friuli Venezia Giulia		Policy	https://www.regione.fvg.it/rafvg/cms/RAFVG/	
Scientific and Innovation System of Friuli Venezia Giulia	SiS FVG	Cluster	https://www.sisfvg.it/about-us	a networking initiative of research institutions

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

ITH5   Emilia-Romagna

Emilia-Romagna is a region in the northeast of Italy comprising the historical regions of Emilia and Romagna, it has a population of 4.5 million. It is home to the University of Bologna, which was founded in 1088 and is the oldest university in the world.

The region has a focus on the emerging fields of regenerative and restorative medicine, as well as pharmaceutical and omics sciences and inclusive services and usable technologies for healthy living and active aging.

Emilia-Romagna is involved in a number of major initiatives in the field of personalised medicine including Hologene, Custom Implants, Italian Infrastructure for Regenerative Medicine, SUPER HPC and Big Data and Italian Biobanks network.

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	202
Total population (2019)	4459477
Proportion older 65y % (2019)	23,95%
Mountain, remote, island?	27% is hilly and 25% mountainous

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	improvement of precision medicine: with the aim of achieving stratified drug formulation for prevention and better therapeutic results / cell therapy, regenerative medicine and gene therapies / health promotion and disease prevention / telemedicine / new care models - transition from 'acute' to 'preventive and restorative' care/ bio-psycho-social (holistic) approach to the patient/ Digital Healthcare
url RIS3 2021-2027	https://fesr.regione.emilia-romagna.it/s3/2021-2027
RIS3 priorities 2014-20	New technologies and medical devices to improve patients care, diagnosis and treatment. New diagnostic methods for chronic and complex diseases. Regenerative medicine. Diagnostics and biomedical devices. Digital transformation for healthcare (e-health).
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ITH5

PM-related Best Practices
Interregional Collaborations

BIOFOSTE - Clinical validation of a BIOmarker panel For OSTEoarthritis diagnosis	https://cordis.europa.eu/project/id/718965
Clinical trial of autologous adipose-derived mesenchymal stromal cells (ASC) in the treatment of mild to moderate osteoarthritis	https://cordis.europa.eu/project/id/643809
ELISE - European LIfe Science Ecosystems	https://www.interregeurope.eu/elise/

EU-STANDS4PM	https://www.eu-stands4pm.eu/
GenoMed4All	https://genomed4all.eu/
IRMI - Italian Infrastructure for Regenerative Medicine	http://www.clusteralisei.it/progetti/irmi/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
MIRRI - Microbial Resource Research Infrastructure	https://www.mirri.org/
MyPeBS - My Personal Breast Screening	https://www.mypebs.eu/
Regions4PerMed	https://www.regions4permed.eu/
S3 ClusSport	https://s3platform-legacy.jrc.ec.europa.eu/sport
S3P4PM - Smart Specialisation Platform for Personalised Medicine	https://s3platform.jrc.ec.europa.eu/personalised-medicine
Screen4Care - Accelerating Diagnosis for Rare Disease Patients Through Genetic Newborn Screening and Artificial Intelligence	https://www.screen4care.eu/
ULTRAPLACAD - ULTRAsensitive PLAsmonic devices for early CAncer Diagnosis	https://ultraplacad.eu/
Vanguard Initiative Smart Health Pilot Project	https://www.s3vanguardinitiative.eu/pilots/smart-health
Vanguard Initiative Smart Health Pilot Project Demo Case "Inter-regional platform for new radiotracers development in personalized medicine (TRACE-MED)"	https://www.imago-mol.ro/the-imago-mol-cluster-has-developed-the-initiative-inter-regional-platform-for-new-radiotracers-development-in-personalized-medicine-trace-med/?lang=en

Project

Halogene 7 2.0 Epidermolysis Bollosa (EB) in Modena from diagnosis to gene therapy		https://www.hg7porfesr.eu/it/hg7-2-0/
Hologene 7 as a model of development of an advanced therapy based on genetically corrected stem cells		https://www.hg7porfesr.eu/en/homepage-2/
Next generation sequencing for targeted personalized therapy of leukemia	NGS-PTL	https://cordis.europa.eu/project/id/306242/reporting/fr
ONCOlogic patient profiling and personalized treatment through SMART bedside diagnostics		https://cordis.europa.eu/project/id/823614
Supercomputing Unified Platform - Emilia-Romagna	SUPER	https://www.hpc.cineca.it/projects/super
Wellness Valley		https://www.wellnessvalley.it/the-district/the-wellness-valley/

Biobanks, Cohorts and genomic initiatives

BIOGEN: Diagnostic and research genetic Biobank	https://www.orpha.net/consor/cgi-
Biological Resource Center IRST	http://www.irst.emr.it/AssistenzaeRicerca/ImmunoterapiaTerapiaCellulareeBio
Biorepsitory of tissue and blood samples, lymphocytes and DNA from patients affected by solitary/multiple osteochondroma and peripheral chondrosarcoma	https://www.orpha.net/consor/cgi-bin/ResearchTrials_RegistriesMaterials.php?lng=EN&data_id=70331&Registry
Brisighella Heart Study Biobank	http://www.aosp.bo.it/
Genetic Biobank	http://www.ior.it/btm/ . http://www.ior.it/en/ricerca-e-innovazione/line-
Italian registry of skeletal dysplasia	https://www.orpha.net/consor/cgi-
LTTA Biobank (Laboratory for Advanced Therapy Technologies)	https://ltta.tecnopoloferrara.it/competence.php?G=eNortjK0UjJWsgZcMAkeAc

REM: Multiple Osteochondromas Registry	https://www.orpha.net/consor/cgi-
ROI: Osteogenesis Imperfecta Registry	https://www.orpha.net/consor/cgi-
Tumor Skeletal Tumor Biobank	http://www.ior.it/en/rizzoli-sicilia/rizzoli-orthopaedics-institute

Digital Innovation Hubs

Alma Mater Studiorum - Università di Bologna	https://www.unibo.it/
ART-ER-DIH	https://www.aster.it/en/aster-dih/
Cineca Consorzio Interuniversitario	https://www.cineca.it/
CNA Emilia Romagna - CNA HUB 4.0	https://www.cnaemiliaromagna.it/en/cna-hub-4-0/
Digital Innovation Hub Emilia-Romagna	https://cerr.eu/en/projects/dih-er
SMILE-DIH (Smart Manufacturing Innovation for Lean Excellence center - Digital Innovation Hub)	http://smile.italian-dih.eu/

Policy

Plan for prevention (2015-2018)	http://salute.regione.emilia-romagna.it/prp/copy4_of_PRP20152018versioneweb.pdf/at_download/file/PRP%202015-2018%20versione%20web.pdf
Social and Health Plan (2017-2019)	https://salute.regione.emilia-romagna.it/normativa-e-documentazione/piani-e-programmi/piano-sociale-sanitario-rer-2017-2019/@@download/file/piano-sociale-sanitario-web.pdf

FundingProgramme

PM-related Stakeholders

ART-ER Attractiveness Research Territory / Attrattività Ricerca Territorio		Funding	https://www.art-er.it/	
Bi-Rex Big Data Innovation & Research Excellence			https://bi-rex.it/	Competence Centre
CIRI Life Sciences and Health Technologies - University of Bologna (UNIBO) / CIRI Scienze della Vita e Tecnologie per la Salute	CIRI-SDV	Research	https://centri.unibo.it/tecnologie-salute/it/	
Clust-ER Industrie della Salute e del Benessere - Health & Wellness industries cluster		Cluster	https://health.clust-er.it/en/	
Clust-ER Health		Cluster	https://health.clust-er.it/en/	
Consorzio Interuniversitario Risonanze Magnetiche di Metallo Proteine	CERM/CIRMMP	Infrastructure	https://www.cerm.unifi.it/	
Department of Medicine and Surgery	University of Parma		Research	https://www.unipr.it/ugov/organizationunit/186474	
Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori	IRST IRCCS		https://www.irst.emr.it/it/	

SAPHIRe Regional Report

Local Health Authority	AUSL	Policy	https://www.ausl.re.it/	
Regione Emilia-Romagna		Policy	https://www.regione.emilia-romagna.it/	
Research Group Treatment of Leukemia and Myelodysplasia. Hematology Bologna Università di Bologna		Research	www.istitutoematologicoseragnoli.it	
Rizzoli Orthopedic Institute	IOR	Hospital	http://www.ior.it/	
Università degli Studi di Ferrara		Research	http://www.unife.it/it	
Università degli studi di Modena e Reggio Emilia	UniMoRE	Research	https://www.unimore.it/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regional and Local Health Authorities (EUREGHA); European Regions Research and Innovation Network (ERRIN)

ITI1   Toscana /Tuscany

For PM-related competences see https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_e87ab21af08d4d5783dc8c977510d013.pdf

Innovation Performance group (2021)	Strong innovator -
Population Density (per km² (2019)	163
Total population (2019)	3729641
Proportion older 65y % (2019)	25,39%
Mountain, remote, island?	Mostly mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	
url RIS3 2021-2027	
RIS3 priorities 2014-20	Cross-sector technology applications: innovative ICT and photonic for domotics, health sector, mobility, manufacturing, tourism and cultural industries. Internet of things and services; Photonics and ICTs for medical, industrial and civil use. Cross-sector technology applications: new technologies and process innovations for healthcare. Development of integrated solutions for health;
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ITI1

PM-related Best Practices

Interregional Collaborations

BIOFOSTE - Clinical validation of a BIOmarker panel For OSTEoarthritis diagnosis	https://cordis.europa.eu/project/id/718965
ERA-NET TRANSCAN-2 Aligning national/regional translational cancer research programmes and activities	https://www.era-learn.eu/network-information/networks/transcan-2
ERA-NET TRANSCAN-3	https://www.era-learn.eu/network-information/networks/transcan-3
iNEXT-Discovery Project - Infrastructure for transnational access and discovery in structural biology	https://cordis.europa.eu/project/id/871037
INTERVENE - AI and human genetics to develop tools for disease prevention, diagnosis, and personalised treatment	https://www.interveneproject.eu/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
MyPeBS - My Personal Breast Screening	https://www.mypebs.eu/
Regions4PerMed	https://www.regions4permed.eu/
Screen4Care - Accelerating Diagnosis for Rare Disease Patients Through Genetic Newborn Screening and Artificial Intelligence	https://www.screen4care.eu/

SAPHIRe Regional Report

SPIDIA for Personalized Medicine - Standardisation of generic Pre-analytical procedures for In-vitro DIAgnostics for Personalized Medicine	https://cordis.europa.eu/project/id/733112

Project

Biobanks, Cohorts and genomic initiatives

Biogene	https://www.aou-
Cell lines and DNA bank of hereditary cancers	http://catalogue.rd-connect.eu/web/cell-lines-and-dna-bank-of-hereditary-
Cells lines and DNA bank of Rett syndrome and other X-linked mental retardation	http://www.biobank.unisi.it/BankOrganization.asp
da Vinci European BioBank	https://www.unifi.it/vp-11370-da-vinci-european-biobank.html
Genetic Biobank of Siena	https://www.dbm.unisi.it/it/dipartimento/personale/docenti/renieri-
Tuscan Cancer Registry / Regional Laboratory of Cancer Prevention of ISPRO Oncological Network, Prevention and Research Institute, Florence, Italy	http://www.ispo.toscana.it/registri
Tuscan Registry of Congenital Anomalies	https://www.orpha.net/consor/cgi-

Digital Innovation Hubs

Regional Platform Industry 4.0 of Tuscany Region (Tuscan Platform Industry 4.0)	http://www.cantieri40.it/i40/index.php
RIF BioRobotics Institute	http://www.pecciolirif.com/

Policy

FundingProgramme

PM-related Stakeholders

Clinical Pharmacology and Oncology Section of the Department of Health Sciences of University of Florence		Research	https://www.dss.unifi.it/vp-79-farmacologia-clinica-e-oncologia.html	
Consorzio Interuniversitario Risonanze Magnetiche di Metallo Proteine	CERM/CIRMMP	Infrastructure	https://www.cerm.unifi.it/	
Institute for Study and Cancer Prevention	ISPRO		https://www.ispro.toscana.it/	
Institute for the study, prevention and network oncology	ISPRO		http://www.ispro.toscana.it/	
Ministry for Health of Tuscany Region		Policy	https://www.regione.toscana.it/salute	regional policy
Office for the Enhancement of Biomedical and Pharmaceutical Research / Ufficio per la Valorizzazione della Ricerca biomedica e farmaceutica	UVaR		https://www.toscanalifesciences.org/it/uvar/	regional
Regione Toscana		Policy	https://www.regione.toscana.it/	
Tuscany Life Sciences Cluster		Cluster	https://www.toscanalifesciences.org/en/the-tuscany-life-sciences-cluster/	
University of Florence - Università degli Studi di Firenze	UniFi	Research	https://www.unifi.it/changelang-eng.html	
University of Siena		Research	https://en.unisi.it/	
University of Trieste - Università degli studi di Trieste	units	Research	https://www.units.it/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); European Regions Research and Innovation Network (ERRIN); European Regional and Local Health Authorities (EUREGHA); ICPerMed

ITI2   Umbria

Innovation Performance group (2021)	Moderate innovator +
Population Density (per km² (2019)	106
Total population (2019)	882015
Proportion older 65y % (2019)	25,58%
Mountain, remote, island?	> 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Innovative specializations in knowledge-intensive application areas. Increase of the number of innovative specializations in knowledge-intensive application areas through the creation and consolidation of innovative, knowledge-intensive start-ups and research spin-off initiatives. Strengthening business innovation. Support for the economic valorisation of innovation through experimentation and adoption of innovative solutions for processes, products and organisations, as well as through the financing of the industrialization of research results. Strengthening of the regional and national innovation system. Support for the participation of territorial actors in stakeholder platforms, national networks of technological specialization and Horizon 2020, as well as for the realization of complex research and development projects and the application of technological solutions on a few important thematic areas functional to the implementation of S3 strategies. Promotion of New Markets for Innovation. Done through generation of innovative solutions to specific problems of social relevance, including through the use of open innovation environments such as Living Labs.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ITI2

PM-related Best Practices
Interregional Collaborations

MIRRI - Microbial Resource Research Infrastructure	https://www.mirri.org/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

PARSEC HUB PERUGIA	http://www.parsec-hub.eu
Umbria Digital Innovation Hub	http://dih.confindustria.umbria.it

Policy

FundingProgramme

PM-related Stakeholders

Regione Umbria		Policy	http://www.regione.umbria.it/contatti	
University of Perugia	UniPg	Research	https://www.unipg.it/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

ITI3   Marche

Marche is one of twenty regions in Italy, located in the central area of the country. It has a population of 1.6 million. The region has four universities: Polytechnic University of the March, University of Urbino "Carlo Bo", University of Macerata and University of Camerino. The regions' S3 priorities include smart homes for smart communities, new advanced industrial automation solutions for mechatronics, ambient assisted living and health industry and integrated and sustainable manufacturing.

Innovation Performance group (2021)	Moderate innovator +
Population Density (per km² (2019)	162
Total population (2019)	1525271
Proportion older 65y % (2019)	24,80%
Mountain, remote, island?	Majority is hilly or mountainous

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Ambient Assisted Living and health industry. Increasing provision of smart and high quality personal care products/services with focus on solutions and models for active longevity. HEALTH AND WELL-BEING: Telemedicine, Nutraceuticals, Human centred design, Active ageing, Safety, New medicine
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ITI3

PM-related Best Practices
Interregional Collaborations

Project

SAPHIRe Regional Report

Biobanks, Cohorts and genomic initiatives

Marche Biobank – Collaborative platform for personalized medicine	https://www.marchebiobank.it/en/homepage/

Digital Innovation Hubs

DIH- Confartigianato Ancona - Pesaro e Urbino	http://www.confartigianatoimprese.net/content/servizi-corsi-digital-innovation-hub-confartigianato-ancona
DIH Marche - 4M.0	http://www.4m0.it/
MARCHE INNOVATION HUB	http://www.innovationbox.it
PARSEC HUB ANCONA	http://www.parsec-hub.eu

Policy

FundingProgramme

PM-related Stakeholders

Cluster Marche		Cluster	https://www.cluster-marche.it/	
e-Living Association Marche Ambient Intelligence Innovation Cluster		Cluster	http://www.e-living.net/en	
Regione Marche		Policy	http://www.regione.marche.it/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

ITI4   Lazio

Innovation Performance group (2021)	Strong innovator -
Population Density (per km² (2019)	343
Total population (2019)	5879082
Proportion older 65y % (2019)	21,70%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 Biotechnology / Medical Devices / Pharmaceuticals and Nutraceuticals / ICT for health /Oncology (including anticancer) / Biomarkers in degenerative diseases / Neuroscience and neurodegenerative diseases (including ageing and longevity factors) / Diseases of the immune system / Molecular medicine / Endocrine-metabolic diseases / Neurological genetic diseases / Implantable devices / Regenerative medicine, cellular therapies and stem cells / Cardiovascular and dysmetabolic diseases / In vitro diagnostics / Allergies and autoimmunity / Rare Diseases / Molecular diagnostics / Bacterial, gastrointestinal and neurological diseases / Hepatitis / Transplants / Radiation biology and biomedicine/Hydrotherapy / Biorobotics for rehabilitation / Advanced biosensing for living environments, for food, for early diagnosis / e-Health and telemedicine / Haematology / Anti-infective drugs and vaccines / Genomics and epigenomics, proteomics, metabolomics and bioinformatics / Molecular imaging / New molecules (including biotech/biopharmaceuticals), for common pathogenesis/pathologies (inflammation, pain, etc) / Food science and nutraceutics / Instrumentation applied to rehabilitation and disability / Gene therapies

url RIS3 2021-2027   http://www.lazioeuropa.it/s3/wp-content/uploads/2021/05/Smart-Specialisation-Strategy-def.pdf

RIS3 priorities 2014-20   Healthy living care services and products (Life Sciences). New technologies and medical devices to improve patients care, diagnosis and treatment.Pharmaceutical and biomedical industries.ICT and digital technologies applications (across sectors). eHealth

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/ITI4

PM-related Best Practices
Interregional Collaborations

CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
DIGICORE - DIGital Institute for Cancer Outcomes Research	
ExACT- European network staff eXchange for integrAting precision health in the health Care sysTems	http://www.exactproject.net/site/
iNEXT-Discovery Project - Infrastructure for transnational access and discovery in structural biology	https://cordis.europa.eu/project/id/871037

KATY - AI-Empowered Personalised Medicine System to Improve Cancer Treatments	https://katy-project.eu/
PERMIT - PERsonalised Medicine Trials	https://permit-eu.org/
PRECeDI - Personalized PREvention of Chronic Diseases	http://www.precedi.eu/site/index.php
PROPHET - a PeRsOnalized Prevention roadmap for the future HEalThcare	https://cordis.europa.eu/project/id/101057721
Screen4Care - Accelerating Diagnosis for Rare Disease Patients Through Genetic Newborn Screening and Artificial Intelligence	https://www.screen4care.eu/
TO-REACH Transferring Innovations in Health Systems	https://to-reach.eu/

Project

Biobanks, Cohorts and genomic initiatives

Biobank IRE	https://www.ifo.it/attivita-cliniche/centri-di-riferimento-ed-
Biobank of the National Center for Epidemiology Surveillance and Health Promotion	https://www.iss.it/home?p_p_id=com_liferay_portal_search_web_portlet_SearchPortlet&p_p_lifecycle=0&p_p_state=maximized&p_p_mode=view&_com_lif
Biological Bank INMI L. Spallanzani	http://www.inmi.it/servizio/laboratorio_di_microbiologia_e_banca_biologica
Cryolab	http://www.cryolab.it/index.htm
OPBG Research Biobank	http://www.ospedalebambinogesu.it/en/home

Digital Innovation Hubs

Cicero DIH Lazio	http://cicero.italian-dih.eu
Confapi Digital Innovation Hub	https://www.confapi.org/it/digital-innovation-hub-confapi.html
DIHV	http://www.si-ies.it/digital-innovation-hub-virtuale-in_evidenza
EDI.it - Digital Innovation Ecosystem	https://www.ediconfcommercio.it

Policy

FundingProgramme

PM-related Stakeholders

Cluster of Health, Innovation and Community	C.H.I.CO.	Cluster	http://www.clusterchico.eu/?lang=en	
European Molecular Biology Laboratory - Rome	EMBL Rome	Research	https://www.embl.it/aboutus/general_information/MR_about/index.html	centre for research in Epigenetics and Neurobiology
Faculty of Medicine and Surgery / Facoltà di Medicina e chirurgia - Università Cattolica del Sacro Cuore	UCSC	Research	https://roma.unicatt.it/medicinaechirurgia?rdeLocaleAttr=en	
Pediatric Hospital Bambino Gesù		Research	https://www.ospedalebambinogesu.it/genetica-e-malattie-rare-103733/	
Regione Lazio		Policy	http://www.regione.lazio.it/	
Sapienza Università di Roma		Research	https://www.uniroma1.it/	
University of Rome "Tor Vergata"		Research	https://en.uniroma2.it/	Faculty of Medicine & CLaK (Centre for Language and Knowledge) on AI & CIMETA, Interdepartmental Centre of Comparative Medicine, Alternative Techniques and Aquaculture

Memberships/Representations In EU/international projects or initiatives in the area of PM

LT   Lietuva / Lithuania (National level)

Lithuania is a country In the Baltic region of Europe with a population of 3 million. The country's S3 priorities Include a focus on molecular technologies for medicine and biopharmaceutics; advanced applied technologies for individual and public health and advanced medical engineering for early diagnostics and treatment. The country is involved In a number of major initiatives including The National Cancer Institute, Kaunas Clinics and Santaros Clinics. Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_lt_english.pdf

Innovation Performance group (2021)	Moderate innovator
Population Density (per km² (2019)	45
Total population (2019)	2794184
Proportion older 65y % (2019)	19,77%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Health technologies and biotechnologies: molecular technologies for medicine and biopharmaceutics; advanced applied technologies for individual and public health; advanced medical engineering for early diagnostics and treatment
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/LT

PM-related Best Practices
Interregional Collaborations

BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
BIC - Biomarker Commercialization	https://bicguide.biomarker.nu/
ELISE - European LIfe Science Ecosystems	https://www.interregeurope.eu/elise/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
EuroNanoMed III (2016-2021) the new ERA-Net Cofund Action on Nanomedicine	https://euronanomed.net/
EU-STANDS4PM	https://www.eu-stands4pm.eu/
HoCare - Delivery of Innovative solutions for Home Care by strengthening quadruple-helix cooperation in regional innovation chains	https://www.interregeurope.eu/hocare/
iNEXT-Discovery Project - Infrastructure for transnational access and discovery in structural biology	https://cordis.europa.eu/project/id/871037

MedIT - Information Technologies in Medicine	http://www.meditcluster.com/
Regions4PerMed	https://www.regions4permed.eu/
ScanBalt BioRegion	https://scanbalt.org/
STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/
UNCAN - a European Initiative to UNderstand CANcer – Drafting a Blueprint for European Cancer Research	https://uncan.eu/

Project

Biobanks, Cohorts and genomic initiatives

Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-

Digital Innovation Hubs

Advanced Manufacturing Digital Innovation Hub	http://intechcentras.lt/services/advanced-manufacturing-digital-innovation-hub/?lang=en
AgriFood Lithuania DIH	https://www.agrifood.lt/
Agro Space DIH	http://www.vpva.lt/agrospacedih/
Baltic Maritime Digital Innovation Hub	http://www.balticdih.eu
INFOBALT DIH	https://infobalt.lt/dih/
Laser Digital Innovation Hub (LaserLT DIH)	http://www.lts-ftmc.lt/en/laserlt-dih/
LIFE SCIENCES DIH LITHUANIA	http://lsdih.com
Lighthouse Digital Innovation Hub	https://lighthouse.lt
Lithuanian robotic DIH (LTroboticsDIH)	http://www.ltrobotics.eu/en/digital-innovation-hub/
Santaka Digital Innovation HUB	https://dih.santaka.eu/
Santaka Valley	http://santakosslenis.lt/en/
Smart Audiovisual World	http://www.sawhub.tech
Smart Energy Digital Innovation Hub	https://smartenergydih.eu
Smart Health Digital Innovation Hub	https://www.smarthealthdih.eu
Sunrise Valley Digital Innovation Hub (SV DIH)	https://sunrisevalleydih.lt/en/
ViDIH Visoriai Digital Innovation Hub	https://vitp.lt/vidih/?lang=en

SAPHIRe Regional Report

not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Policy

Life Sciences and health technologies development in Lithuania - national strategy	https://eimin.lrv.lt/uploads/eimin/documents/files/Inovaciijos/Strategijos/2018-11-7%20GMI%20gair%C4%97s-%20galutin%C4%97s.pdf
Lithuanian Innovation Development Programme 2014–2020	http://eimin.lrv.lt/uploads/eimin/documents/files/Lietuvos%20inovacij%C5%B3%20pl%C4%97tros%20programa_patvirtinta%202013%2012%2018_EN.pdf
National progress strategy "Lithuania 2030"	https://www.lietuva2030.lt/en/about

FundingProgramme

Healthy ageing	http://www.lmt.lt/en/competitive-research-funding/national-research-programmes/healthy-ageing/795

PM-related Stakeholders

Agency for Science, Innovation & Technology / Mokslo, inovacijų ir technologijų agentūra	MIRA	Funding	https://mita.lrv.lt/	
Government Strategic Analysis Center	STRATA	Policy - Research & Innovation	https://strata.gov.lt/en/	
Health Technology cluster iVita		Cluster	http://www.i-vita.lt/en.html	
Kaunas clinics		Hospital	https://www.kaunoklinikos.lt/	
Life Sciences Digital Innovation Hub	LS DIH Lithuania	Cluster	https://klaster.lt/en/klateris/gyvybes-mokslu-skaitmeniniu-inovaciju-centras/	
Lithuanian Biotechnology Association / Lietuvos biotechnologų asociacija	LBTA	Cluster	http://lbta.lt/en	
Lithuanian Innovation Centre / Lietuvos inovacijų centras	LIC	Innovation Agency	http://lic.lt/en/	
Lithuanian University of Health Sciences		Research	https://lsmuni.lt/en/	
Ministry of Education, Science and Sport / Švietimo, mokslo ir sporto ministerij	SMM	Policy - Research & Innovation	http://www.smm.lt/web/en/	
Ministry of Health / Lietuvos Respublikos sveikatos apsaugos ministerij	SAM	Policy - Healthcare	https://sam.lrv.lt/en/	
National Cancer institute	NVI	Research	https://www.nvi.lt/en/	
Oxipit		Corporate - Medtech	https://oxipit.ai/	AI medical imaging company
Research Council of Lithuania / Lietuvos mokslo taryba	LMT	Funding	http://www.lmt.lt/en	
State Medicines Control Agency	VVKT		https://www.vvkt.lt/index.php?1148175238	
Vilnius City Innovation Industrial Park	VCIIP	Infrastructure	https://vciip.com/	
Vilnius University Faculty of Medicine	MF VU	Research	https://www.mf.vu.lt/en	
Vilnius University Hospital Santara Clinic		Hospital	https://www.santa.lt/	

Vilnius University Hospital Žalgiris Clinic		Hospital	https://www.zalgirioklinika.lt/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

ICPerMed

Vilnius University Hospital Žalgiris Clinic		Hospital	https://www.zalgirioklinika.lt/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

ICPerMed

LU   Luxembourg (National level)

Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_lu_english.pdf Although Luxembourg has a relatively young population, it is ageing rapidly due to steadily increasing life expectancy. Most life expectancy gains have been achieved after the age of 65 but many years in old age are lived with chronic diseases and disabilities, which increases demand on the health and long-term care systems. The social health insurance system offers broad access to health care and operates three schemes that cover health, sickness leave and long-term care. The health system is well resourced with strong infrastructure and stable levels of personnel. Reforms have started to shift activities towards ambulatory (or outpatient) care and to improve the efficiency of the health system

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	240
Total population (2019)	613894
Proportion older 65y % (2019)	14,39%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Health technologies : address the challenge of ageing by orienting Luxembourg's expertise in molecular diagnostics and related areas towards supporting the transition from curative medicine to preventive and personalized medicine. This also involves facilitating the access of patients to innovative therapeutic or diagnostic solutions. In this context, the field of digital health has been identified as a strategic opportunity. Data being a key transversal asset for developing new services in fields such as digital health

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/LU

PM-related Best Practices
Interregional Collaborations

B1MG - Beyond 1 Million Genomes Pan-European initiative to create genome-based health data infrastructure	https://b1mg-project.eu/
BeNeLuxA Initiative – Collaboration on Pharmaceutical Policy Horizon scanning for pharmaceuticals	https://beneluxa.org/
CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
Codex4SMEs (Companion diagnostics expedited for small and medium-sized businesses)	https://www.nweurope.eu/projects/project-search/codex4smes-companion-diagnostics-expedited-for-smes/
EATRIS - European infrastructure for translational medicinE	https://eatris.eu/

EMBL - European Molecular Biology Laboratory	https://www.embl.org/
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/
imSAVAR	https://imsavar.eu/
PERMIT - PERsonalised Medicine Trials	https://permit-eu.org/
PNANO4BONE - Nanovectors engineered for plasma enhanced theranostics in regenerative medicine	https://www.era-learn.eu/network-information/networks/m-era-net-2/m-era-net-call-2016/nanovectors-engineered-for-plasma-enhanced-theranostics-in-regenerative-medicine
SPIDIA for Personalized Medicine - Standardisation of generic Pre-analytical procedures for In-vitro DIAgnostics for Personalized Medicine	https://cordis.europa.eu/project/id/733112

Project

CanBIO Doctoral Training in Cancer Biology		https://www.lih.lu/page/canbio
National Centre for Excellence in Research in Parkinson's Disease	NCER-PD	https://parkinson.lu/
PEARL Neuropathology		https://www.fnr.lu/projects/chair-in-neuropathology/

Biobanks, Cohorts and genomic initiatives

Integrated Biobank of Luxemburg	https://www.ibbl.lu/
Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-

Digital Innovation Hubs

Luxembourg Institute of Science and Technology (LIST)	https://www.list.lu/
Luxinnovation	https://www.luxinnovation.lu/
Nyuko a.s.b.l.	https://nyuko.lu/

Policy

Accord de coalition 2018-2023	https://gouvernement.lu/en/publications/accord-coalition/2018-2023.html
AI Strategic Vision	https://digital-luxembourg.public.lu/initiatives/artificial-intelligence-strategic-vision-luxembourg
National Research and Innovation Strategy	https://gouvernement.lu/dam-assets/documents/actualites/2020/02-fevrier/25-mesr-strategie-recherche-innovation/mesr-strategy-research-innovation.pdf
National Research Priorities for Luxembourg	https://storage.fnr.lu/index.php/s/iI12FidGuRhycV4/download
Programme de recherche clinique hospitalière	http://sante.public.lu/fr/espace-professionnel/recherche-biomedicale/programme-recherche-clinique-hospitaliere/index.html
The Data-Driven Innovation Strategy for the Development of a Trusted and Sustainable Economy in Luxembourg	https://gouvernement.lu/en/publications/rapport-etude-analyse/minist-economie/intelligence-artificielle/data-driven-innovation.html

FundingProgramme

SAPHIRe Regional Report

CORE	https://www.fnr.lu/
National Centre of Excellence (NCER)	https://www.fnr.lu/
PRIDE	https://www.fnr.lu/

PM-related Stakeholders

ELIXIR-LU - ELIXIR Luxembourg		Infrastructure	https://elixir-luxembourg.org/	
Health Ministry / Ministère de la Santé	Msan	Policy - Healthcare	https://msan.gouvernement.lu/fr.html	
Laboratoire National de Santé	LNS		https://lns.lu/	National Centre of Genetics and National Centre of Pathology
Luxembourg Center for Systems Biomedecine at University of Luxembourg	LCSB UNILU	Research	https://wwwfr.uni.lu/lcsb	
Luxembourg Institute of Health	LIH	Research	https://www.lih.lu/	
Luxembourg National Research Fund / Fonds National de la Recherche	FNR	Funding	https://www.fnr.lu/	
Luxinnovation		Cluster	https://www.luxinnovation.lu/	
Ministry of Higher Education and Research / Ministère de l'Enseignement Supérieur et de la Recherche	MESR	Policy - Research & Innovation	http://www.mesr.public.lu/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); ICPerMed

LV Latvija / Latvia (National level)

Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_lv_english.pdf

Innovation Performance group (2021)	Emerging innovator
Population Density (per km² (2019)	30
Total population (2019)	1919968
Proportion older 65y % (2019)	20,26%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20 | Biomedicine, medical technologies and biotechnology. Chemical and biotechnological methods and products for the production of pharmaceutical and bioactive substances; Development and research of new and existing human and veterinary medicinal products; Molecular and individualized treatment and diagnostic methods and cell technology; Functional foods, therapeutic cosmetics and bioactive natural substances. Knowledge intensive bio-economy

url RIS3 2014-2020 | https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/LV

PM-related Best Practices
Interregional Collaborations

B1MG - Beyond 1 Million Genomes Pan-European initiative to create genome-based health data infrastructure	https://b1mg-project.eu/
BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
EATRIS - European infrastructure for translational medicinE	https://eatris.eu/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
ERA CoBioTech	https://www.cobiotech.eu/home
ERA-NET NEURON Cofund2 togther for brain research	https://www.neuron-eranet.eu/
ERA-NET TRANSCAN-2 Aligning national/regional translational cancer research programmes and activities	https://www.era-learn.eu/network-information/networks/transcan-2
ERA-NET TRANSCAN-3	https://www.era-learn.eu/network-information/networks/transcan-3

ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/
EU-OPENSCREEN ERIC - European Infrastructure of Open Screening Platforms for Chemical Biology	https://www.eu-openscreen.eu/index.html
EuroNanoMed III (2016-2021) the new ERA-Net Cofund Action on Nanomedicine	https://euronanomed.net/
MIRRI - Microbial Resource Research Infrastructure	https://www.mirri.org/
ScanBalt BioRegion	https://scanbalt.org/
STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
TO-REACH Transferring Innovations in Health Systems	https://to-reach.eu/

Project

Biobanks, Cohorts and genomic initiatives

Genome Database of Latvian Population	http://biomed.lu.lv/en/research/core-facilities/genome-centre/
Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-

Digital Innovation Hubs

EDI DIH	https://www.edi.lv
Latvian IT Cluster	http://www.itbaltic.com
Ventspils High Technology Park (VHTP)	http://www.vhtp.lv/

Policy

Latvian Bioeconomy Strategy 2030	https://www.zm.gov.lv/public/files/CMS_Static_Page_Doc/00/00/01/46/58/E2758-LatvianBioeconomyStrategy2030.pdf

FundingProgramme

PM-related Stakeholders

Organisation	Abbrev.	Type	Link	Notes
Digital Health Society Latvia / Digitālās Veselības Biedrība		Cluster	https://about.digital-health.lv/team-introduction	
Institute of Electronics and Computer Science	EDI	Research	https://www.edi.lv/	
Investment and Development Agency of Latvia	LIAA	Innovation Agency	https://www.liaa.gov.lv/en	
Latvian Biomedical Research and Study Centre		Research	http://bmc.biomed.lu.lv/en/	
Latvian Council of Science / Latvijas Zinātnes padome	LCS	Funding	https://lzp.gov.lv/en/	national funding science
Latvian Institute of Organic Synthesis	LIOF	Research	http://www.osi.lv/en/	
Ministry of Education and Science / Izglītības un Zinātnes Ministrija	IZM	Policy - Research & Innovation	https://www.izm.gov.lv/en	national policy science education
Ministry of Health / Veselības ministrija		Policy - Healthcare	https://www.vm.gov.lv/	
State Agency of Medicines of Latvia	SAMLV		https://www.zva.gov.lv/en	
State Education Development Agency	VIAA		https://fundit.fr/en/institutions/latvian-state-education-development-agency-viaa	

Memberships/Representations In EU/international projects or initiatives in the area of PM

MT   Malta (National level)

Malta, officially known as the Republic of Malta, is a Southern European island country consisting of an archipelago in the Mediterranean Sea. It has a population of 417,520. Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_malta_english.pdf

The country's S3 priorities in the area of health have a focus on healthy living and active ageing, and e-health. In Malta the life sciences sector has a wide ranging presence in the Maltese economy, with well established operations in the manufacture of pharmaceuticals and medical devices, the production of software for the healthcare industry, as well as a growing health tourism sector. All this has been boosted by the country's workforce as well as effective connectivity with foreign markets. Country Health Profile 2021 see https://ec.europa.eu/health/sites/health/files/state/docs/2021_chp_malta_english.pdf

Innovation Performance group (2021)	Moderate innovator
Population Density (per km² (2019)	1595
Total population (2019)	493559
Proportion older 65y % (2019)	18,68%
Mountain, remote, island?	Non mountain Island

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	Health & well-being Cancer / cellular therapy / development of personalised medicine / translational neurological research from bench to bedside / e-Health / bioinformatics / innovative digital tools to support healthcare / Biomedical engineering / AI in healthcare / HPC for health / Human-Centric Applications (Digital Health, Patient Data, etc.) / evidence-based decisions to improve the accessibility, effectiveness, efficiency and sustainability of the healthcare systems / targeted prevention / telemedicine
url RIS3 2021-2027	http://mcst.gov.mt/wp-content/uploads/2020/10/Malta-RIS3-2021-2027_DRAFT-PUBLIC-CONSULTATION-Oct2020.pdf
RIS3 priorities 2014-20	Health with a focus on healthy living and active ageing, and e-heah. ICT in health, digital
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/MT

PM-related Best Practices

Interregional Collaborations

BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
I.T.A.M.A. - ICT Tools for the diagnosis of Autoimmune diseases in the Mediterranean Area	https://keep.eu/projects/20522/ICT-Tools-for-the-diagnosis-EN/
INCENTIVE - Innovation and technology to improve customer-oriented healthcare services	https://www.interregeurope.eu/intencive/

STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/
TO-REACH Transferring Innovations in Health Systems	https://to-reach.eu/

Project

Better Care Platform		https://www.better.care/
myHealth Portal		https://myhealth-ng.gov.mt/
National Cancerplatform		http://www.nationalcancerplatform.org.mt/
National open EHR		https://blog.better.care/malta-goes-openehr-with-better
Setting Up of the Establishment for Blood, Tissue and Cell Centre		https://ec.europa.eu/info/sites/default/files/factsheet-malta_en_0.pdf
SNOMED National Release Centre	SNOMED NRC	https://deputyprimeminister.gov.mt/en/imu/snomed-nrc/Pages/Home.aspx
The Maltese Genome Project		https://www.um.edu.mt/__data/assets/pdf_file/0003/154560/THE_MALTA_BIOBANK.pdf

Biobanks, Cohorts and genomic initiatives

MALTA CONGENITAL ANOMALIES REGISTRY - contributes to EUROCAT	https://www.orpha.net/consor/cgi-
Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-
University of Malta BioBank	http://www.um.edu.mt/biobank

Digital Innovation Hubs

Malta Digital Hub	http://www.maltalifesciencespark.com/malta-digital-hub/
MITA Innovation Hub	http://mih.mt/

Policy

A National Health Systems Strategy for Malta 2014-2020	https://deputyprimeminister.gov.mt/en/Documents/National-Health-Strategies/NHSS-EN.pdf
National Cancer Plan	https://deputyprimeminister.gov.mt/en/Documents/National-Health-Strategies/NationalCancerPlan2017.pdf

FundingProgramme

PM-related Stakeholders

Centre of Molecular Medicine and Biobanking - University of Malta		Research	https://www.um.edu.mt/cmmb	
Department of Applied Biomedical Science - Faculty of Health Sciences - University of Malta		Research	https://www.um.edu.mt/healthsciences/applied-bio-science/aboutus	
Department of Physiology & Biochemistry - Faculty of Medicine and Surgery - University of Malta		Research	https://www.um.edu.mt/ms/physbiochem	
Directorate for Research, Lifelong Learning and Employability within Ministry For Education And Employment		Policy - Research & Innovation	https://researchandinnovation.gov.mt/en/Pages/Research%20and%20Innovation.aspx	
Malta Council for Science and Technology	MCST	Funding	https://mcst.gov.mt/	
Malta Digital Innovation Authority	MDIA	Policy - Research & Innovation	https://mdia.gov.mt/	
Malta Information Technology Agency	MITA	Innovation Agency	https://mih.mt/	
Malta Life Sciences Park		Infrastructure	https://www.maltalifesciencespark.com/	
Medicines Authority	MA		http://www.medicinesauthority.gov.mt/home?l=1	
Ministry of Health		Policy - Healthcare	https://deputyprimeminister.gov.mt/en/Pages/health.aspx	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Alliance for Personalised Medicine (EAPM); European Regions Research and Innovation Network (ERRIN)

16/05/2023   not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

NL   Nederland / The Netherlands (National level)

Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_nl_english.pdf   For PM-related competences see https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_cf7239ad0b5d4e0480b6b9a6ab9ba988.pdf

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	507
Total population (2019)	17282163
Proportion older 65y % (2019)	19,18%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20

url RIS3 2014-2020

PM-related Best Practices
Interregional Collaborations

B1MG - Beyond 1 Million Genomes Pan-European initiative to create genome-based health data infrastructure	https://b1mg-project.eu/
BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
BeNeLuxA Initiative – Collaboration on Pharmaceutical Policy Horizon scanning for pharmaceuticals	https://beneluxa.org/
BeWell – Blueprint Alliance for a Future Health Workforce Strategy on Digital and Green Skills	https://ehma.org/bewell-blueprint-alliance-for-a-future-health-workforce-strategy-on-digital-and-green-skills/
CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
EATRIS - European infrastructure for translational medicinE	https://eatris.eu/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
ERA CoBioTech	https://www.cobiotech.eu/home
ERA-NET TRANSCAN-2 Aligning national/regional translational cancer research programmes and activities	https://www.era-learn.eu/network-information/networks/transcan-2
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/

EuroNanoMed III (2016-2021) the new ERA-Net Cofund Action on Nanomedicine	https://euronanomed.net/
hDMT - human Organ and Disease Model Technologies	https://www.hdmt.technology/
MIRRI - Microbial Resource Research Infrastructure	https://www.mirri.org/
RegMedXB Regenerative Medicine Crossing Borders	https://regmedxb.com/
STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/
TO-REACH Transferring Innovations in Health Systems	https://to-reach.eu/
UNCAN - a European Initiative to UNderstand CANcer – Drafting a Blueprint for European Cancer Research	https://uncan.eu/

Project

FAIR genomes		http://fairgenomes.org/
Genome of the Netherlands project	GoNL	http://www.genoomvannederland.nl/
Netherlands X-omics Initative		https://www.health-ri.nl/initiatives/netherlands-x-omics-initiative
Personal Health Train	PHT	https://pht.health-ri.nl/

Biobanks, Cohorts and genomic initiatives

Biobanking Netherlands	https://www.bbmri.nl/
Dutch Nationwide Pathology Databank	https://www.palga.nl/en/
first national genomic database for cancer research	https://www.hartwigmedicalfoundation.nl/en/database/
Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-
Netherlands BioImaging Advanced Microscopy	http://eurobioimaging.nl/ ; onderzoeksfaciliteiten.nl/facility/netherlands-
Parelsnoer Biobanken | Health-RI Multicenter clinical biobanks	https://www.health-ri.nl/parelsnoer

Digital Innovation Hubs

Policy

beleidsplan 2020-2024 ZonMw het verschil maken	https://www.zonmw.nl/fileadmin/zonmw/documenten/Corporate/Beleidsplan/ZonMw_Beleidsplan_2020_-_2024_Het_verschil_maken.pdf
FAIR Genomes ELSI report	https://elsi.health-ri.nl/sites/elsi/files/2021-10/ELSI%20rapport%20FAIR%20Genomes%20okt21%20v4.pdf
Health RI	https://www.health-ri.nl/
Human Tissue and Medical Research: code of conduct for responsible use (2011)	https://www.coreon.org/wp-content/uploads/2020/04/coreon-code-of-conduct-english.pdf

16/05/2023   not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Medical Research Involving Human Subjects Act (WMO)	https://wetten.overheid.nl/BWBR0009408/2022-01-31
Missie: Gezondheid en zorg	https://www.topsectoren.nl/binaries/topsectoren/documenten/kamerstukken/2019/april/29-04-2019/missiedocument/Missies+voor+het+Topsectoren-+en+Innovatiebeleid+26-04-2019.pdf
Strategy of Health-RI (an integrated health data research infrastructure)	https://www.health-ri.nl/health-ri
Visiedocument over data in de oncologie / Vision about data in oncology	https://iknl.nl/getmedia/e445d89b-d6fb-4e4d-ba33-1803fd7f0aad/iknl_data-laten-leven_visiedocument_0419_def.pdf

FundingProgramme

Citizen Science voor Gezondheid en Zorg (CS4GZ)	https://www.zonmw.nl/nl/onderzoek-resultaten/life-sciences-health/programmas/programma-detail/citizen-science-voor-gezondheid-en-zorg/
Regio Deals	https://www.krachtvanderegio.nl/overzicht-programma/

PM-related Stakeholders

Agency of the Dutch Medicines Evaluation Board	aCBG / MEB		https://english.cbg-meb.nl/	
Association of Cooperating Health Funds / Vereniging Samenwerkende Gezondheidsfondsen	SGF		http://www.gezondheidsfondsen.nl/	special health competence
College ter Beoordeling van Geneesmiddelen	CBG	Policy - Healthcare	https://english.cbg-meb.nl/	
DARE-NL - national platform for cell- & gene therapy		Infrastructure	https://www.kwf.nl/toegang-tot-geneesmiddelen/dare-nl-platform-voor-cel-en-gentherapie	
Dutch Biotech Association / Nederlandse Biotechnologie Vereniging	NBV	Cluster	https://nbv.kncv.nl/nl/	
Dutch Forum for Biotechnology and Genetics / Forum Biotechnologie en Genetica	FBG	Cluster	https://www.forumbg.nl/	
Dutch LSH Alliance		Cluster	http://www.lshalliance.nl/	
Dutch Research Council / Nederlandse Organisatie voor Wetenschappelijk Onderzoek	NWO	Funding	https://www.nwo.nl/	national execution & funding R&D
ELIXIR Netherlands - DTL - Digital Life Sciences		Infrastructure	https://www.dtls.nl/elixir-nl/	
FoodValley		Cluster	https://www.foodvalley.nl/	
Health RI - National Health Research Infrastructure		Infrastructure	https://www.health-ri.nl/	
Health Valley		Cluster	https://www.healthvalley.nl/welcome-to-health-valley	Making the difference in Life Sciences & Health
Health~Holland		Cluster	https://www.health-holland.com/	
Healthcare Institute of the Netherlands / Zorginstituut Nederland			https://www.zorginstituutnederland.nl/	
HollandBIO		Cluster	https://www.hollandbio.nl/	
ICT for Brain, Body and Behavior	i3B	Cluster	https://www.i3b.org/	

Medical Delta - Innovationhub for Health & Technology		Cluster	https://www.medicaldelta.nl/en	
Ministry of Economic Affairs and Climate Policy / Ministerie van Economische Zaken en Klimaat		Policy	https://www.government.nl/ministries/ministry-of-economic-affairs-and-climate-policy	national policy economy
Ministry of Education, Culture and Science / Ministerie van Onderwijs, Cultuur en Wetenschap		Policy - Research & Innovation	https://www.government.nl/ministries/ministry-of-education-culture-and-science	national policy education ; national policy science
Ministry of Health, Welfare and Sport / Ministerie van Volksgezondheid, Welzijn en Sport		Policy - Healthcare	https://www.government.nl/ministries/ministry-of-health-welfare-and-sport	national policy health
National eHealth Living Lab	NeLL	Cluster	https://nell.eu/	
Netherlands Cancer Institute	NKI	Research	https://www.nki.nl/	
Netherlands Enterprise Agency / Rijksdienst voor Ondernemend Nederland	RVO	Funding	https://english.rvo.nl/	national execution & funding economy
Nictiz - Dutch competence centre for electronic exchange of health and care information / Nationaal ICT Instituut in de Zorg			https://www.nictiz.nl/english/	
Oncode Institute		Research	https://www.oncode.nl/	
OncologyNetwork SouthEast NL / Oncologie netwerk Zuidoost-Nederland	OncoZon		https://www.oncozon.nl/	
Patient Alliance for Rare and Genetic Diseases / Patiëntenkoepel voor zeldzame en genetische ziektes	VSOP	Cluster	https://vsop.nl/	
Regional OncologyNetworks / Regionale Oncologienetwerken			https://www.oncologienetwerken.nl/	
Task Force Health Care - The Dutch Life Sciences & Health Sector	TFHC	Cluster	https://www.tfhc.nl/	
Taskforce Oncologie			https://www.nfu.nl/themas/zorg-op-de-juiste-plek/taskforce-oncologie	
TNO Innovation for life		Research	https://www.tno.nl/en/	
Topsectors / Topsectoren		Funding	https://www.topsectoren.nl/	national execution & funding economy
Universities of Applied Sciences Netherlands	UASNL	Research	https://www.uasnl.eu/	
VitaValley		Cluster	https://vitavalley.nl/	
ZonMw - The Netherlands Organisation for Health Research and Development		Funding	https://www.zonmw.nl/en/	national execution & funding health

Memberships/Representations In EU/international projects or initiatives in the area of PM

16/05/2023

NL1   Noord-Nederland / North Netherlands

Innovation Performance group (2021)	Groningen Strong Innovator ; Friesland Moderate Innovator +; Drenthe Moderate Innovato
Population Density (per km² (2019)	205
Total population (2019)	1723829
Proportion older 65y % (2019)	21,13%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 transition from care to (positive) health / shifting from treatment to prevention, from intramural to extramural care, from generic to individual treatment and from physician-directed to more personal control / Healthy Ageing / Agrofood (healthy food), digitalisation (e-health), HTSM (materials) and water (antibiotic resistance)

url RIS3 2021-2027   https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_9d1284f43b0a46fabfb6f9c7e40ecd66.pdf

RIS3 priorities 2014-20   Healthy Ageing.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/NL1

PM-related Best Practices

Interregional Collaborations

EOSC4Cancer - European Open Science Cloud for Cancer	https://eosc4cancer.eu/
EurOPDX	https://www.europdx.eu/
ScanBalt BioRegion	https://scanbalt.org/

Project

Biobanks, Cohorts and genomic initiatives

Lifelines Cohort and Biobank	http://wiki-lifelines.web.rug.nl/doku.php

16/05/2023

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Centre of Expertise Healthy Ageing Hanzehogeschool Groningen	CoE HA		https://www.hanze.nl/nld/onderzoek/speerpunten/healthy-ageing	
Healthy Ageing Network Northern-Netherlands	HANNN	Cluster	https://www.hannn.eu/startpagina	
Innovatiecluster Drachten		Cluster	https://www.icdrachten.nl/en/	
Life Cooperative (Healthy Ageing Business Cooperative)		Cluster	https://www.healthyageingbusinesscooperative.nl/businesscooperative/en/startpagina	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

16/05/2023   not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

NL12   Friesland (NL)

Innovation Performance group (2021)	Moderate innovator +
Population Density (per km² (2019)	191
Total population (2019)	647672
Proportion older 65y % (2019)	21,24%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Life sciences. Living labs - valorisation. of research and innovation

url RIS3 2014-2020

PM-related Best Practices

Interregional Collaborations

AML_PM - Improved Treatments of Acute Myeloid Leukaemias by Personalised Medicine	https://www.era-learn.eu/network-information/networks/era-permed/1st-joint-transnational-call-for-proposals-2018/improved-treatments-of-acute-myeloid-leukaemias-by-
MIND	https://keep.eu/projects/17618/MIND-EN/

Project

Biobanks, Cohorts and genomic initiatives

SAPHIRe Regional Report

Digital Innovation Hubs

Innovation Cluster Drachten (ICD)	http://www.icdrachten.nl

Policy

FundingProgramme

PM-related Stakeholders

Medical Center Leeuwarden	MCL	Hospital	https://www.mcl.nl/	
Provincie Friesland		Policy	https://www.fryslan.frl/home/contact-en-adres_3187/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

NL2   Oost-Nederland / East Netherlands

The regional policy of East Netherlands, which incorporates regional economic and innovation policy, focuses on three pillars: creating and maintaining an attractive business environment for companies; supporting a better connection between education and the labour market; and stimulating innovation and entrepreneurship.The regions' S3 priorities include a focus on increasing cost effectiveness of health care and promoting private sector implementation of innovations in nano technology by the R&D sector.

Innovation Performance group (2021)	Overijssel Strong Innovator; Gelderland Strong Innovator +; Flevoland Strong Innovator
Population Density (per km² (2019)	373
Total population (2019)	3644949
Proportion older 65y % (2019)	19,06%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	"Prevention & MedTech", "Sustainability & FoodTech" & "Manufacturing & MaterialTech" / Connected Health / Pm & Food
url RIS3 2021-2027	https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_509259507fb9416b8b44c8b8e5562c6b.pdf
RIS3 priorities 2014-20	Innovations for prevention / MedTech & Connected Health / Personalised Health & Nutrition. laser technology for skin. Diagnostics. Increase cost effectiveness of healthcare
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/NL2

PM-related Best Practices
Interregional Collaborations

Boost4Health	https://www.boost4health.eu/
Clinical trial of autologous adipose-derived mesenchymal stromal cells (ASC) in the treatment of mild to moderate osteoarthritis	https://cordis.europa.eu/project/id/643809
EUVECA - European Platform for Vocational Excellence in Health Care	https://ehma.org/euveca-european-platform-for-vocational-excellence-in-health-care/
Gen.era	https://www.generaproject.com/
hDMT - human Organ and Disease Model Technologies	https://www.hdmt.technology/
HealthChain - Boosting value chains in Health at regional and EU level	https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/how-to-participate/org-details/969492400/project/101094676/program/44416173/details
ImmunoSep - Personalized immunotherapy in sepsis: a precision medicine based approach	https://www.immunosep.eu/
imSAVAR	https://imsavar.eu/
MatMed	https://www.matmed.eu/

Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
MIND	https://keep.eu/projects/17618/MIND-EN/
PANCAIM - Pancreatic cancer AI for genomics and personalized Medicine	https://pancaim.eu/
Personalised Body Sensor Networks with Built-In Intelligence for Real-Time Risk Assessment and Coaching of Ageing workers, in all types of working and living environments	https://cordis.europa.eu/project/id/826304
S3P4PM - Smart Specialisation Platform for Personalised Medicine	https://s3platform.jrc.ec.europa.eu/personalised-medicine
Smartwork - Smart Age-friendly Living and Working Environment	https://www.smartworkproject.eu/
TT4CL - Targeted Treatment for Cutaneous Leishmaniasis	https://tt4cl-h2020.eu/
ULTRAPLACAD - ULTRAsensitive PLAsmonic devices for early CAncer Diagnosis	https://ultraplacad.eu/
Vanguard Initiative Smart Health Pilot Project	https://www.s3vanguardinitiative.eu/pilots/smart-health
Vanguard Initiative Smart Health Pilot Project Demo Case Diabetes type-II on return / P4 Medicine - Citizen Lab	https://www.topfit.life/mission_programmes/diabetes-on-return-nl/
Vanguard Initiative Smart Health Pilot Project Demo Case We are - Interregional Personal Data Management Platform	https://vito.be/en/news/flanders-invests-platform-secure-data-sharing

Project

Brainport Health Innovation		https://oostnl.nl/nl/brainport-health-innovations
Embedded Field Labs voor zorginnovatie		https://oostnl.nl/nl/embedded-field-labs-voor-zorginnovatie
Health Valley		https://oostnl.nl/nl/health-valley
Human Digital Twin		https://oneplanetresearch.nl/innovatie/digital-twin/
OpenPlanet - accessible digital ecosystem for entrepreneurs and organisations in health		https://www.openplanet.cloud/
TopFit Diabetes type-II on return		https://www.topfit.life/mission_programmes/diabetes-on-return-nl/

Biobanks, Cohorts and genomic initiatives

AGORA: biobank (DNA) voor aangeboren afwijkingen en kinderkanker	https://www.orpha.net/consor/cgi-
Radboud Biobank	https://www.radboudumc.nl/en/research/radboud-technology-
Radboud Biobank - IJzerbiobank (cellijnen, DNA, serum en urine)	https://www.orpha.net/consor/cgi-

Digital Innovation Hubs

BOOST Smart Industry Hub, East-Netherlands	https://smartindustryoost.nl
Digital Innovation Hub Healthcare Robotics (DIH-HERO)	https://dih-hero.eu/
Industrial Reality Hub	http://www.industrialrealityhub.com
Novel-T	http://www.novelt.com
Smart Welding Factory (SWF)	http://www.smartweldingfactory.com/

Space53	http://www.space53.eu/
TechMed Innovation Hub	https://www.utwente.nl/en/techmed/innovation/
ThermoPlastic composites NL	https://www.tpcnl.nl/
TValley	http://www.tvalley.nl

Policy

TopFit programme	http://www.topfit.life/

FundingProgramme

PM-related Stakeholders

East Netherlands / Oost-Nederland (Flevoland, Overijssel, Gelderland)		Policy	https://oostnl.nl/	
East Netherlands Development Agency / Oost NL		Innovation Agency	https://oostnl.com/en	
Health Innovation Park	HIP	Infrastructure	https://www.healthinnovationpark.nl/	
Medtech Twente		Cluster	https://oostnl.com/en/video/medtech-twente	medtech innovation hub in Twente
Novio Tech Campus		Infrastructure	https://noviotechcampus.com/	Health and High Tech hotspot
OnePlanet Research Center		Research	https://oneplanetresearch.nl/	multidisciplinary collaboration between Wageningen University & Research (WUR), Radboud University, Radboudumc and nano-technology world-player imec, supported by the province of Gelderland. Latest chip technologies for healthy life & sustainable food
Radboud University Medical Center	Radboudumc RUMC	Research	https://www.radboudumc.nl/en/research/themes	
Roessingh Research and Development	RRD	Research	https://www.rrd.nl/	

Technical Medical Centre | University of Twente	TechMed Centre	Research	https://www.utwente.nl/en/techmed/	
TopFit		Cluster	https://www.topfit.life/en/topfit-3/	
Wageningen University & Research	WUR	Research	https://www.wur.nl/	To explore the potential of nature to improve the quality of life

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); European Regions Research and Innovation Network (ERRIN); Other : collaboration on development of a European Citizenlab on prevention.

NL3   West-Nederland / West Netherlands

Innovation Performance group (2021)	Utrecht Innovation Leader - ; Noord-Holland Innovation Leader- ; Zuid-Holland Strong Inno
Population Density (per km² (2019)	937
Total population (2019)	8252442
Proportion older 65y % (2019)	18,00%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 prevention / eHealth / Lifestyle / gene therapy and regenerative medicine, often combined with imaging, data, cell and immunotherapy and neuroscience / neurology / oncology / reorganisation of care from specialist care into the home, from treatment to prevention, from illness to positive health / Life Science

url RIS3 2021-2027   https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_7d4281a57cfc41c6972ec3948e03f961.pdf

RIS3 priorities 2014-20   convergence of technology in. nano-tech sector and traditional ICT sector. innovation implementation, public access innovation infrastructure

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/NL3

PM-related Best Practices

Interregional Collaborations

CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
EurOPDX	https://www.europdx.eu/
iNEXT-Discovery Project - Infrastructure for transnational access and discovery in structural biology	https://cordis.europa.eu/project/id/871037

Project

16/05/2023

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

OncolyNetwork Mid Netherlands / Oncologienetwerk van Midden-Nederland	OncoMid		https://oncomid.nl/	
Regional OncologyNetwork West / Regionaal Oncologienetwerk West			https://www.ro-west.nl/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

NL4   Zuid-Nederland / South Netherlands

Innovation Performance group (2021)	Noord-Brabant Innovation leader- ; Limburg Strong Innovator
Population Density (per km² (2019)	516
Total population (2019)	3660943
Proportion older 65y % (2019)	21,03%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 P4 (prediction, prevention, personalisation, participation) / e Life Science & Health / Regenerative medicine

url RIS3 2021-2027   https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_5c2029b77aa14a88857dad80bd69cbde.pdf

RIS3 priorities 2014-20   research centre for health. cluster development, linkages between. private sector and educational research facilities. promoting linkages between research. and development centres and diverse sectoral clusters, promoting implementation of newly developed innovations

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/NL4

PM-related Best Practices
Interregional Collaborations

ITHACA - InnovaTion in Health And Care for All	https://www.interregeurope.eu/ithaca/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

LifetecZONe		Cluster	https://www.lifeteczone.nl/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

NL41   Noord-Brabant / North Brabant

Noord-Brabant is a province in the south of the Netherlands with a population of 2.5 million. Within the Netherlands the region of Noord-Brabant is recognised as a strong region in terms of R&D and innovation with a strong technological profile.

Together with the Provinces Zeeland and Limburg, Noord Brabant has a Research and Innovation Strategy for Smart Specialisation for South-Netherland (RIS3). The RIS3 South Netherlands aims to further develop the region of South Netherlands into a top innovative economic region. This mission is coherent with the fact that half of the region's economic growth comes from innovation.

Through a careful consideration of the region's strong knowledge institutes, national and international recognition of the cooperation model as well as the region's unique ecosystem, the following five areas of smart specialisation of the South Netherlands were identified:High-tech systems; Chemistry; Life sciences & health; Logistics and Agriculture & Food. For For PM-related competences see https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_25ff0b12ccd9450c9ccf6aab9759ae64.pdf

Innovation Performance group (2021)	Innovation leader -
Population Density (per km² (2019)	515
Total population (2019)	2544806
Proportion older 65y % (2019)	19,98%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   promoting linkages between researchand development centres and diverse sectoral clusters, promoting implementation of newly developed innovations

url RIS3 2014-2020

PM-related Best Practices
Interregional Collaborations

Boost4Health	https://www.boost4health.eu/
Codex4SMEs (Companion diagnostics expedited for small and medium-sized businesses)	https://www.nweurope.eu/projects/project-search/codex4smes-companion-diagnostics-expedited-for-smes/
hDMT - human Organ and Disease Model Technologies	https://www.hdmt.technology/
Healthy Aging	https://www.interregemr.eu/projects/healthyaging-en

Helium (Health Innovation Experimental Landscape through Policy Improvement)	https://www.interregeurope.eu/helium/
i2-CoRT (Innovation and Implementation acceleration for Complex Rehabilitation Technology)	https://www.i2-cort.eu/
MedIT - Information Technologies in Medicine	http://www.meditcluster.com/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
Regions4PerMed	https://www.regions4permed.eu/
RegMedXB Regenerative Medicine Crossing Borders	https://regmedxb.com/
TIMELY - Artificial intelligence-powered apps for a healthy heart	https://cordis.europa.eu/project/id/101017424

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

AMSYSTEMS Center	http://amsystemscenter.com/
CityLab Brainport Eindhoven	https://citylabacademy.nl/
DIH High Tech Software Cluster	https://hightechsoftwarecluster.nl/digital-innovation-hub/
Jheronimus Academy of Data Science	https://www.jads.nl/
Living Lab for Smart Society (LL4SS) aka Living Lab Stratumseind 2.0	https://citylabacademy.nl/
PhotonDelta	https://www.photondelta.eu/
Smart Connected Supplier Network	https://smartconnected.t4smm.nl/
Smart Industry Hub South	https://www.smartindustry.nl/smart-industry-zuid/
TNO Holst Centre	https://www.holstcentre.com/

Policy

Uitvoeringsprogramma Innovatie Life Sciences Health 2018-2022	https://www.brabant.nl/-/media/82468797fc94472e83510b65433964b2.pdf

FundingProgramme

PM-related Stakeholders

Biobased Delta		Cluster	https://biobaseddelta.com/	
Brabant Development Agency	Bom	Innovation Agency	www.bom.nl	
Care Innovation Centre	CIC		https://www.cic-westbrabant.nl/	
Cluster Sports&Technology		Cluster	https://sportsandtechnology.com/	regional innovation
Eindhoven Medtech Innovation Center	e/MTIC	Research	https://www.tue.nl/en/research/research-groups/eaisi/eaisi-business-operations/eindhoven-medtech-innovation-center/	
Eindhoven University of Technology - Institute for Complex Molecular Systems	TUE ICMS	Research	https://www.tue.nl/en/research/institutes/institute-for-complex-molecular-systems/	
Jheronimus Academy of Data Science	JADS	Research	https://www.jads.nl/	
Pivot Park | Life sciences campus for pharmaceutical innovation			www.pivotpark.com	
Provincie Noord-Brabant		Policy	https://www.brabant.nl/	regional policy
Therapie Op Maat instituut / Tailor-made therapy institute	TOMi		https://www.tom-i.nl/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); European Regions Research and Innovation Network (ERRIN)

NL42   Limburg (NL)

Together with the Provinces Zeeland and Noord Brabant, Limburg has a Research and Innovation Strategy for Smart Specialisation for South-Netherland (RIS3). The RIS3 South Netherlands aims to further develop the region of South Netherlands into a top innovative economic region. This mission is coherent with the fact that half of the region's economic growth comes from innovation.

Through a careful consideration of the region's strong knowledge institutes, national and international recognition of the cooperation model as well as the region's unique ecosystem, the following five areas of smart specialisation of the South Netherlands were identified:High-tech systems; Chemistry; Life sciences & health; Logistics and Agriculture & Food.   For PM-related competences see https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_a9c1e56951ef4108a246b8784dc74b2f.pdf

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	518
Total population (2019)	1116137
Proportion older 65y % (2019)	23,40%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20

url RIS3 2014-2020

PM-related Best Practices
Interregional Collaborations

BioEndoCar - Biomarkers for diagnosis and prognosis of Endometrial Carcinoma	https://www.era-learn.eu/network-information/networks/transcan-2/third-joint-transnational-call-jtc-2016/biomarkers-for-diagnosis-and-prognosis-of-endometrial-
hDMT - human Organ and Disease Model Technologies	https://www.hdmt.technology/
Healthy Aging	https://www.interregemr.eu/projects/healthyaging-en
i2-CoRT (Innovation and Implementation acceleration for Complex Rehabilitation Technology)	https://www.i2-cort.eu/
MatMed	https://www.matmed.eu/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
RegMedXB Regenerative Medicine Crossing Borders	https://regmedxb.com/

SAPHIRe Regional Report

not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

S3P4PM - Smart Specialisation Platform for Personalised Medicine	https://s3platform.jrc.ec.europa.eu/personalised-medicine
wearIT4health	http://www.wearit4health.com/

Project

Open innovation Brightlands Maastricht Health Campus		https://www.interregeurope.eu/policylearning/good-practices/item/3337/open-innovation-brightlands-maastricht-health-campus/

Biobanks, Cohorts and genomic initiatives

Biobank Clinical Genetics	https://klinischegenetica.mumc.nl/ik-ben-zorgprofessional/biobank-klinische-
BioBank Maastricht UMC+	https://www.biobank.nl/

Digital Innovation Hubs

Brightlands Smart Services Campus	https://brightlands.com/en/brightlands-smart-services-campus/brightlands-smart-services-campus-smes

Policy

FundingProgramme

PM-related Stakeholders

Aachen-Maastricht Institute for Biobased Materials	AMIBM	Research	https://www.maastrichtuniversity.nl/research/aachen-maastricht-institute-biobased-materials	
Brightlands Maastricht Health Campus		Infrastructure	https://www.brightlands.com/en/brightlands-maastricht-health-campus	
Institute for Public Health Genomics	IPHG	Research	https://www.maastrichtuniversity.nl/research/genetics-and-cell-biology/institute-public-health-genomics	

Maastricht Universitair Medisch Centrum	MUMC	Research	https://www.mumc.nl/en/homepage-research	
Medace Biomedical CO-workspace			https://www.medacespace.com/	
Provincie Limburg		Policy	https://www.limburg.nl/	regional policy
regional development agency for Limburg	LIOF	Funding	https://liof.nl/en	regional execution & funding

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

NO   Norge/Norway (National level)

Norway has a population of approximately 5 million people. As well as being involved in a number of major Initiatives around personalised medicine, Norway has a national strategy for personalised medicine within the health service. The strategy will contribute to development and implementation in the health service in the period 2017-2021. Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_no_english.pdf

In collaboration with regional health authorities, the Research Council also published an action plan for research and innovation in personalised medicine. The action plan proposes a number of measures to achieve: Increased interaction, international cooperation, leverage national advantages, increased visibility, more interdisciplinarity and better coordination, reduced barriers to interaction, responsible research and innovation. Country Health Profile 2021 see https://ec.europa.eu/health/sites/health/files/state/docs/2021_chp_no_english.pdf

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	17
Total population (2019)	5328212
Proportion older 65y % (2019)	17,24%
Mountain, remote, island?	> 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   na

url RIS3 2014-2020

PM-related Best Practices
Interregional Collaborations

AML_PM - Improved Treatments of Acute Myeloid Leukaemias by Personalised Medicine	https://www.era-learn.eu/network-information/networks/era-permed/1st-joint-transnational-call-for-proposals-2018/improved-treatments-of-acute-myeloid-leukaemias-by-
B1MG - Beyond 1 Million Genomes Pan-European initiative to create genome-based health data infrastructure	https://b1mg-project.eu/
BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
BeWell – Blueprint Alliance for a Future Health Workforce Strategy on Digital and Green Skills	https://ehma.org/bewell-blueprint-alliance-for-a-future-health-workforce-strategy-on-digital-and-green-skills/
DIGI-B-CUBE	https://digibcube.eu/
DIGICORE - DIGital Institute for Cancer Outcomes Research	
Dish project	https://www.dishproject.eu/

EATRIS - European infrastructure for translational medicinE	https://eatris.eu/
ECRIN - European Clinical Research Infrastructure Network	https://ecrin.org/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
ERA CoBioTech	https://www.cobiotech.eu/home
ERA-NET NEURON Cofund2 togther for brain research	https://www.neuron-eranet.eu/
ERA-NET TRANSCAN-2 Aligning national/regional translational cancer research programmes and activities	https://www.era-learn.eu/network-information/networks/transcan-2
ERA-NET TRANSCAN-3	https://www.era-learn.eu/network-information/networks/transcan-3
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/
EU-OPENSCREEN ERIC - European Infrastructure of Open Screening Platforms for Chemical Biology	https://www.eu-openscreen.eu/index.html
EuroNanoMed III (2016-2021) the new ERA-Net Cofund Action on Nanomedicine	https://euronanomed.net/
EurOPDX	https://www.europdx.eu/
EUVECA - European Platform for Vocational Excellence in Health Care	https://ehma.org/euveca-european-platform-for-vocational-excellence-in-health-care/
imSAVAR	https://imsavar.eu/
INNAXE - Inclusive & aligned INNovation Agendas across Europe	https://cordis.europa.eu/project/id/101070847
INTERVENE - AI and human genetics to develop tools for disease prevention, diagnosis, and personalised treatment	https://www.interveneproject.eu/
PANCAIM - Pancreatic cancer AI for genomics and personalized Medicine	https://pancaim.eu/
PERMIT - PERsonalised Medicine Trials	https://permit-eu.org/
ScanBalt BioRegion	https://scanbalt.org/
STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
SYNCHROS - SYNergies for Cohorts in Health: integrating the ROle of all Stakeholders	https://synchros.eu/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/
TO-REACH Transferring Innovations in Health Systems	https://to-reach.eu/

Project

BigMed		https://bigmed.no/
DoMore!		https://domore.no/
Health Registries for Research	HRR	https://hrr.w.uib.no/
INTROMAT (INtroducing personalized TReatment Of Mental health problems using Adaptive Technology)		https://intromat.no/
Service for Sensitive Data	TSD	https://www.uio.no/english/services/it/research/sensitive-data/about/

SAPHIRe Regional Report

Biobanks, Cohorts and genomic initiatives

Biobank Norway	https://www.ntnu.no/biobanknorge
Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-

Digital Innovation Hubs

BigInsight	https://www.biginsight.no
DigitalNorway	https://www.digitalnorway.com/
Norway Health Tech	https://www.norwayhealthtech.com/
Oslo Cancer Cluster	http://oslocancercluster.no/
SIRIUS Centre for Scalable Data Access	http://sirius-labs.no

Policy

Dette er persontilpasset medisin / This is personalised medicine	https://www.abelia.no/bransjer/helse/nyheter/dette-er-persontilpasset-medisin/
Handlingsplan for forskning og innovasjon innenfor persontilpasset medisin (2018–2021) / Action plan for research and innovation in the field of personalised medicine 2018-2021	https://www.forskningsradet.no/om-forskningsradet/publikasjoner/2018/handlingsplan-for-forskning-og-innovasjon-innenfor-persontilpasset-medisin-2018-2021/
National e-health strategy and action plan 2017-2022	https://www.ehelse.no/strategi/nasjonal-e-helsestrategi-og-handlingsplan-2017-2022
National Strategy for Biotechnology	https://www.regjeringen.no/globalassets/upload/kd/vedlegg/forskning/national_strategy_for_biotechnology_2011-2020.pdf
Norwegian Strategy for Personalised Medicine in Healthcare 2017–2021	https://www.helsedirektoratet.no/rapporter/strategi-for-persontilpasset-medisin-i-helsetjenesten

FundingProgramme

Open call, Helse Sorost RHF	https://www.helse-sorost.no/helsefaglig/forskning/-forskningsmidler-/utlysning-av-regionale-forskningsmidler
Programme for clinical therapy research (KLINBEFORSK)	http://kliniskforskning.rhf-forsk.org/
Regional Research Grants	https://www.helse-sorost.no/helsefaglig/forskning

PM-related Stakeholders

ELIXIR Norway		Infrastructure	https://elixir.no/	
Haukeland University Hospital, Helse Bergen HF		Hospital	www.helse-bergen.no	biobank/genome sequencing infrastructure/super computer/strategic research centra
Helseinn		Cluster	https://helseinn.net/english/	
Inland Norway University of Applied Sciences	INN	Research	https://eng.inn.no/	
Inlandet Hospital Trust		Hospital	https://sykehuset-innlandet.no/om-oss/jobb-i-sykehuset-innlandet/innlandet-hospital-trust	

Innovation Norway		Innovation Agency	https://www.innovasjonnorge.no/en/start-page/	
Institute for Cancer Genetics and Informatics	ICGI		https://www.icgi.no/	
Life Science Cluster		Cluster	https://tlsc.no/	
Norway Health Tech	NHT	Cluster	https://www.norwayhealthtech.com/	
Norwegian Cancer Genomics Consortium			http://kreftgenomikk.no/en/	
Norwegian Centre for eHealth Research	NSE	Research	http://www.ehealthresearch.no/	
Norwegian Clinical Research Infrastructures Network	NorCRIN	Infrastructure	https://www.norcrin.no/	
Norwegian Consortium for Sequencing and Personalized Medicine	NorSeq	Cluster	https://www.norseq.org/	
Norwegian Genomics Consortium	NGS		http://www.genomics.no/	
Norwegian Institute of Public Health	NIPH		https://www.fhi.no/en/	
Norwegian Medicines Authority	NOMA		https://legemiddelverket.no/English	
Norwegian Precision Cancer Medicine Implementation	CONNECT	Cluster	https://nordiclifescience.org/norwegian-public-private-agreement-for-precision-cancer-medicine/	
Norwegian Primary Care Research Network PraksisNet			https://www.uib.no/en/praksisnett	
Norwegian Smart Care Cluster	NSCC	Cluster	https://www.smartcarecluster.no/english/about-us	
Norwegian University of Science and Technology	NTNU	Research	https://www.ntnu.edu/	
Norwegian University of Science and Technology	NTNU	Research	https://www.ntnu.edu/	
Oslo Cancer Cluster		Cluster	https://oslocancercluster.no/	oncology research and industry cluster Norwegian Centre of Expertise
Oslo Cancer Cluster Incubator			https://occincubator.com/	
Research Council of Norway	RCN	Funding	https://www.forskningsradet.no/	national funding
University of Bergen	UIB	Research	uib.no	biobank/genome sequencing infrastructure/super computer/strategic research centra
University of Oslo	UIO	Research	https://www.uio.no/	
Western Norway University of Applied Sciences		Research	https://www.hvl.no/en/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

PL   Polska / Poland (National level)

Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_poland_english.pdf   For PM-related competences see https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_fa6d9d1158af49a89d5ff1cd2ff0358d.pdf

Innovation Performance group (2021)	Emerging innovator
Population Density (per km² (2019)	124
Total population (2019)	37972812
Proportion older 65y % (2019)	17,66%
Mountain, remote, island?	non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Healthy Society. New medical and medicinal products and technologies of their manufacturing; diseases diagnosis and advanced therapy methods. Innovative technologies. Bio economy
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/PL

PM-related Best Practices
Interregional Collaborations

BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
ECRIN - European Clinical Research Infrastructure Network	https://ecrin.org/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
ERA CoBioTech	https://www.cobiotech.eu/home
ERA-NET NEURON Cofund2 togther for brain research	https://www.neuron-eranet.eu/
ERA-NET TRANSCAN-2 Aligning national/regional translational cancer research programmes and activities	https://www.era-learn.eu/network-information/networks/transcan-2
ERA-NET TRANSCAN-3	https://www.era-learn.eu/network-information/networks/transcan-3
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/
EU-OPENSCREEN ERIC - European Infrastructure of Open Screening Platforms for Chemical Biology	https://www.eu-openscreen.eu/index.html
EuroNanoMed III (2016-2021) the new ERA-Net Cofund Action on Nanomedicine	https://euronanomed.net/

MEDPIG - Development of an innovative technology for the use of transgenic pig tissues for biomedical purposes	https://kbib.up.poznan.pl/?q=node/117
MIRRI - Microbial Resource Research Infrastructure	https://www.mirri.org/
ScanBalt BioRegion	https://scanbalt.org/
STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
UNCAN - a European Initiative to UNderstand CANcer – Drafting a Blueprint for European Cancer Research	https://uncan.eu/
UNCAN - a European Initiative to UNderstand CANcer – Drafting a Blueprint for European Cancer Research	https://uncan.eu/

Project

Biobanks, Cohorts and genomic initiatives

Observer Country European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-
Polish Biobank Network	http://bbmri.pl/pl/

Digital Innovation Hubs

Policy

Health policy programs	https://www.gov.pl/web/zdrowie/programy-polityki-zdrowotnej1
Health Program 2016-2020	https://www.gov.pl/web/zdrowie/narodowy-program-zdrowia1
Healthy future. Strategic Frame for Health Care System for the period 2021-2027 (including the perspective up to 2030)	https://www.gov.pl/web/zdrowie/zdrowa-przyszlosc--strategia-rozwoju-ochrony-zdrowia-na-kolejne-dziewiec-lat
National Strategy for Regional Development up to 2030	https://www.gov.pl/web/fundusze-regiony/krajowa-strategia-rozwoju-regionalnego
Polish Framework. Policy Paper on healthcare 2014-2020	http://www.zdrowie.gov.pl/uploads/pub/pages/page_846/text_images/Krajowe%20ramy%20strategiczne%20www.pdf
Priorities of the Polish Coalition for PM	http://pkmp.org.pl/strona/deklaracja-programowa
Public Health Act	http://dziennikustaw.gov.pl/du/2017/2237/1
The Strategy for Responsible Development for the period up to 2020 (including the perspective up to 2030)	https://www.gov.pl/web/fundusze-regiony/informacje-o-strategii-na-rzecz-odpowiedzialnego-rozwoju

FundingProgramme

PM-related Stakeholders

Agency for Health Technology Assessment and Tariff System / Agencji Oceny Technologii Medycznych i Taryfikacji	AOTMiT		https://www.aotm.gov.pl/en/	
Agency for Medical Research / Agencja Badań Medycznych	ABM	Funding	https://www.abm.gov.pl/en	national execution & funding health
Coalition for AI in Health			http://aiwzdrowiu.pl/	
Industrial Development Agency / Agencja Rozwoju Przemysłu	ARP IDA	Innovation Agency	https://www.arp.pl/en	national execution & funding economy
Institute of Human Genetics Polish Academy of Sciences	IGCZ	Research	https://igcz.poznan.pl/en/	
Ministry of Development, Labor and Technology / Ministerstwo Rozwoju, Pracy i Technologii		Policy - Research & Innovation	https://www.gov.pl/web/rozwoj-praca-technologia	national policy economy
Ministry of Education and Science / Ministerstwo Edukacji i Nauki		Policy - Research & Innovation	https://www.gov.pl/web/edukacja-i-nauka	national policy science & education
Ministry of Funds and Regional Policy / Ministerstwo Funduszy i Polityki Regionalnej		Policy	https://www.gov.pl/web/fundusze-regiony	national policy regional affairs
Ministry of Health / Ministerstwo Zdrowia		Policy - Healthcare	https://www.gov.pl/web/zdrowie	national policy health
National Academy of Sciences	PAN		https://institution.pan.pl/	
National Center for Nuclear Research Radioisotope Center	POLATOM		https://www.polatom.pl/	
National Center of Science / Narodowym Centrum Nauki	NCN	Funding	https://ncn.gov.pl/?language=en	national execution & funding science
National Centre for Research and Development / Narodowe Centrum Badań i Rozwoju	NCBR	Funding	https://www.gov.pl/web/ncbr-en	national execution & funding research & economy
National Health Fund	NFZ		www.nfz.gov.pl	
National Information Processing Center - National Research Institute / Ośrodek Przetwarzania Informacji – Państwowy Instytut Badawczy	OPI PIB	Research	https://opi.org.pl/en/	
Office for Registration of Medicinal Products, Medical Devices and Biocidal Products	URPL		https://www.urpl.gov.pl/en	
Polish Agency for Enterprise Development / Polskiej Agencji Rozwoju Przedsiębiorczości	PARP	Innovation Agency	https://en.parp.gov.pl/	national execution & funding economy
Polish Association of Innovative Medical Biotechnology Companies	BioInMed	Cluster	https://www.bioinmed.pl/	
Polish Center for Technology Development / Polski Ośrodek Rozwoju Technologii	PORT		https://port.lukasiewicz.gov.pl/en/	

| Polish Innovative Medical Cluster | PIKMED | Cluster | https://polinnovation.com/o-klastrze | |

Memberships/Representations In EU/international projects or initiatives in the area of PM

ICPerMed

| Polish Innovative Medical Cluster | PIKMED | Cluster | https://polinnovation.com/o-klastrze | |

Memberships/Representations In EU/international projects or initiatives in the area of PM

ICPerMed

PL21   **Małopolskie / Lesser Poland Voivodeship**

Innovation Performance group (2021)	Moderate innovator -
Population Density (per km² (2019)	224
Total population (2019)	3360545
Proportion older 65y % (2019)	16,72%
Mountain, remote, island?	non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Life sciences. The mix of two value chains: health and quality of life which include products and technologies used in the prevention, diagnosis, treatment and rehabilitation of human and animal diseases and bio-economy comprising semi-finished products and products used in the production of pharmaceuticals, cosmetics, food, materials and energy. advanced materials and nanotechnologies. Programmes to implement new compounds, materials and chemical technologies, including chemical engineering solutions, in areas (9 domains) related to health care

url RIS3 2014-2020   https://www.malopolska.pl/_userfiles/uploads/5%20-%20Uszczegolowienie%20obszarow%20IS.pdf

PM-related Best Practices
Interregional Collaborations

CE4BIG – Cluster Excellence for Business Innovation and Growth in the Health Sector	http://ce4big.lifescience.pl/
Dish project	https://www.dishproject.eu/
ITHACA - InnovaTion in Health And Care for All	https://www.interregeurope.eu/ithaca/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

CYBERSEC HUB	http://cybersechub.eu/

Policy

FundingProgramme

PM-related Stakeholders

hub4industry Digital Innovation Hub		Infrastructure	https://hub4industry.pl/	
Klaster LifeScience Krakow	KLSK	Cluster	https://lifescience.pl/	
Krakow Technology Park	KPT	Infrastructure	https://www.kpt.krakow.pl/en/	
Małopolska Voivodeship / Województwo Małopolskie		Policy	https://www.malopolska.pl/	regional

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); European Regions Research and Innovation Network (ERRIN)

PL22   Śląskie / Silesian Voivodeship

Śląskie (Upper Silesia) a coal-intensive region is located in the southern part of Poland. The voivodship (from the south) bordering the Czech Republic and Slovakia. The regions' S3 priorities include a focus on energy, medicine (including ageing societies; public health and well-being and public health & security), ICT, emerging industries, and the green economy.

Innovation Performance group (2021)	Emerging innovator
Population Density (per km² (2019)	369
Total population (2019)	4488998
Proportion older 65y % (2019)	18,68%
Mountain, remote, island?	non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 Cell and tissue cultures, in particular stem cell cultures and their use / Tissue engineering and regenerative medicine / Specialist software and hardware for computer-aided medical biotechnologies, including for modelling of proteins and intermolecular interaction processes / Biosensors / Technologies based on genomics, proteomics and metabolomics for medical diagnosis, prognosis and therapy / Bionanotechnologies / Biomaterials / Telemedicine in prevention, diagnosis, therapy and rehabilitation of patients / innovative diagnostic and therapeutic tools and devices / robotics in medicine, nanotechnologies, drugs and drug carriers / innovative medical products / algorithms supporting decision-making processes in medicine, bioinformatics

url RIS3 2021-2027   https://ris.slaskie.pl/dokument/regionalna_strategia_innowacji_wojewodztwa_slaskiego_2030

RIS3 priorities 2014-20   Personalised Medicine. Ageing societies (residential care activities); Public health and well-being (basic pharmaceutical products & pharmaceutical preparations, biotechnology and human health activities, e.g. medical services; Public health & security (services - scientific research & development)

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/PL22

PM-related Best Practices
Interregional Collaborations

MEDPIG - Development of an innovative technology for the use of transgenic pig tissues for biomedical purposes	https://kbib.up.poznan.pl/?q=node/117
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
Regions4PerMed	https://www.regions4permed.eu/
S³martMed - The European Strategic Cluster Partnership for smart specialisation investments in medical technologies.	https://s3martmed.eu/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

Technology Programme of Slaskie Vovodeship	ris.slaskie.pl

FundingProgramme

PM-related Stakeholders

MedSilesia Cluster Silesian Network of Medical Devices		Cluster	http://www.medsilesia.com/	
Sileasia Voivodeship / Województwo Śląskie		Policy	https://www.slaskie.pl/	regional
Silesian Park of Medical Technology Kardio-Med Silesia in Zabrze		Infrastructure	http://en.kmptm.pl/	
Upper Silesian Agency for Entrepreneurship and Development / Górnośląska Agencja Przedsiębiorczości i Rozwoju	GAPR	Funding	https://gapr.pl/en/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN); Other : https://s3platform.jrc.ec.europa.eu/reconfirm

PL41   Wielkopolskie / Greater Poland Voivodeship

Greater Poland Voivodeship is second in area and third in population among Poland's sixteen voivodeships.

Innovation Performance group (2021)	Emerging innovator +
Population Density (per km² (2019)	118
Total population (2019)	3473172
Proportion older 65y % (2019)	16,35%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	personalised medicine / products, services and new technologies connected with prevention, diagnostics and therapy civilisation diseases, rare and pandemic diseases / new methods supporting diagnostic and therapeutic decisions using ICT and Big Data
url RIS3 2021-2027	https://www.umww.pl/regionalna-strategia-innowacji
RIS3 priorities 2014-20	Personalised medicine; products, services and new technologies related to prevention, diagnostics and treatment of lifestyle diseases and rare diseases; new methods that support diagnostic decisions and treatment with the use of ICT and Big Data. ICT-based development. ICT applications, services and systems aimed at improving the quality of life
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/PL41

PM-related Best Practices

Interregional Collaborations

INPRONKO - a collaboration project between western regions of Poland (Opole, Zachodniopomorskie, Lubuskie, Wielkopolskie, Dolnośląskie) aiming to establish and run a proton therapy center in Poznań	https://glospacjenta.pl/leczenie/390,eksperci-o-staraniach-na-rzecz-rozwoju-polskiej-protonoterapii
MEDPIG - Development of an innovative technology for the use of transgenic pig tissues for biomedical purposes	https://kbib.up.poznan.pl/?q=node/117

Project

Biobanks, Cohorts and genomic initiatives

PRCM: Polish registry of congenital malformations - contributes to the EUROCAT network	https://www.orpha.net/consor/cgi-bin/ResearchTrials_RegistriesMaterials.php?lng=EN&data_id=63685&Registry

Digital Innovation Hubs

HPC4Poland	http://www.hpc4poland.pl
Poznan Science and Technology Park of Adam Mickiewicz University Foundation	https://ppnt.poznan.pl/about-us/

Policy

The Wielkopolska Region Development Strategy up to 2030	https://wrot.umww.pl/baza-wiedzy-2/

FundingProgramme

PM-related Stakeholders

Greater Poland Cancer Center		Research	https://wco.pl/	hospital/medical cancer treatment and research center
Institute of Bioorganic Chemistry PAS	IBCH	Research	https://www.ibch.poznan.pl/en.html	strategic research center
Medical University of Karol Marcinkowski in Poznań		Research	http://www.ump.edu.pl/	
MNM Diagnostics			https://mnm.bio/pl/	biobank/genome sequencing infrastructure
Poznan Supercomputing and Networking Center	PSNC	Research	https://www.psnc.pl/	super computer / strategic research center
Wielkopolska Voivodeship / Województwo Wielkopolskie		Policy	https://www.umww.pl/	regional

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

PL42 Zachodniopomorskie / West Pomeranian Voivodeship

Innovation Performance group (2021)	Emerging innovator
Population Density (per km² (2019)	77
Total population (2019)	1675502
Proportion older 65y % (2019)	17,91%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 e-health / telemedicine / more innovative, personalised solutions / new and innovative digital solutions for healthcare sector

url RIS3 2021-2027 http://bip.wzp.pl/sites/bip.wzp.pl/files/articles/projektregionalnejstrategiiinnowacji2030.pdf

RIS3 priorities 2014-20 ICT-based products. Includes IT services, telecommunications, electronics, optoelectronics and the manufacture and repair of computers, their parts and components the periphery, also includes activities related to the production of various types of equipment, e.g. equipment and instruments used in medicine, optics, photography and others areas which require application in order to implement innovations effectively ICT solutions.

url RIS3 2014-2020 https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/PL42

PM-related Best Practices

Interregional Collaborations

INPRONKO - a collaboration project between western regions of Poland (Opole, Zachodniopomorskie, Lubuskie, Wielkopolskie, Dolnośląskie) aiming to establish and run a proton therapy center in Poznań	https://glospacjenta.pl/leczenie/390,eksperci-o-staraniach-na-rzecz-rozwoju-polskiej-protonoterapii

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Pomeranian Medical University in Szczecin	PMU	Research	https://www.pum.edu.pl/english/about-pmu	
West Pomeranian Voivodeship / Województwo Zachodniopomorskie		Policy	https://www.szczecin.uw.gov.pl/	regional

Memberships/Representations In EU/international projects or initiatives in the area of PM

PL43   Lubuskie / Lubusz Voivodeship

Innovation Performance group (2021)	Emerging innovator
Population Density (per km² (2019)	73
Total population (2019)	1003310
Proportion older 65y % (2019)	17,04%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Health & quality of life. Health tourism, healthy & safe food (including regional products), medical technologies

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/PL43

PM-related Best Practices

Interregional Collaborations

INPRONKO - a collaboration project between western regions of Poland (Opole, Zachodniopomorskie, Lubuskie, Wielkopolskie, Dolnośląskie) aiming to establish and run a proton therapy center in Poznań	https://glospacjenta.pl/leczenie/390,eksperci-o-staraniach-na-rzecz-rozwoju-polskiej-protonoterapii

Project

Biobanks, Cohorts and genomic initiatives

16/05/2023

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Lubusz Voivodeship /Województwo Lubuskie		Policy	https://lubuskie.pl/	regional

Memberships/Representations In EU/international projects or initiatives in the area of PM

PL51   Dolnośląskie / Lower Silesian Voivodeship

Lower Silesian Voivodeship is located in southwestern Poland and is one of the 16 voivodeships (provinces) into which Poland is divided. It has a population of 2.9 million. There are eleven public universities in the voivodship including the Medical University of Silesia.

The region is involved in a number of major initiatives including Regions4PerMed, CareWell, TITTAN and the CareWell Project.

Innovation Performance group (2021)	Emerging innovator +
Population Density (per km² (2019)	145
Total population (2019)	2865072
Proportion older 65y % (2019)	18,54%
Mountain, remote, island?	non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	Biomedical Technologies / Medicinal and Medical products / Technologies for disease diagnosis and treatment / Advanced cellular and other experimental therapies / biomedical technologies
url RIS3 2021-2027	https://umwd.dolnyslask.pl/fileadmin/user_upload/Gospodarka/Aktualnosci/Dzial_Innowacji/DolnoslaskaStrategiaInnowacji2030przyj_przezZWDdn05_01_2021.pdf
RIS3 priorities 2014-20	ehealth; Development of organic and nonorganic chemical substance and technologies to be used in medical and pharmaceutical products including innovative way of their application, cosmetics, household and professional products including design, manufacture and implementation of innovative facilities like equipment, devices and production lines.
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/PL51

PM-related Best Practices

Interregional Collaborations

BIC - Biomarker Commercialization	https://bicguide.biomarker.nu/
digital Life4CE	https://www.interreg-central.eu/Content.Node/digitalLIFE4CE.html
INPRONKO - a collaboration project between western regions of Poland (Opole, Zachodniopomorskie, Lubuskie, Wielkopolskie, Dolnośląskie) aiming to establish and run a proton therapy center in Poznań	https://glospacjenta.pl/leczenie/390,eksperci-o-staraniach-na-rzecz-rozwoju-polskiej-protonoterapii
Regions4PerMed	https://www.regions4permed.eu/
TITTAN - (Network for Technology,Innovation and Translation in Ageing	https://www.interregeurope.eu/tittan/

SAPHIRe Regional Report

not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Project

Biobanks, Cohorts and genomic initiatives

Biobank of the Medical University of Wrocław	http://www.biobank.umed.wroc.pl/
Biobank of the Polish Center for Technology Development	http://www.biobank.eitplus.pl/

Digital Innovation Hubs

Centre for Advanced Manufacturing Technologies, Wroclaw University of Science and Technology	http://www.camt.pl/index.php/en/home-en/

Policy

FundingProgramme

PM-related Stakeholders

Innovative Medicine Cluster		Cluster	http://innowacyjnamedycyna.eu/en/	
Lower Silesian Agency for Economic Cooperation / Dolnośląska Agencja Współpracy Gospodarczej	DAWG	Innovation Agency	http://dawg.pl/	
Lower Silesian Regional Development Agency / Dolnośląska Agencja Rozwoju Regionalnego	DARR	Innovation Agency	https://www.darr.pl/	
Lower Silesian Voivodeship / Województwo Dolnośląskie		Policy	https://umwd.dolnyslask.pl/	regional
Medical University of Of the Silesian Piasts in Wrocław		Research	https://www.umw.edu.pl/	
Nutribiomed		Cluster	http://www.nutribiomed.pl/	
Wrocław Technology Park		Infrastructure	http://www.technologpark.pl/	

16/05/2023   not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Wroclaw University of Environmental and Life Sciences / Uniwersytet Przyrodniczy we Wrocławiu		Research	http://www.up.wroc.pl	
Wrocław University of Technology		Research	https://pwr.edu.pl/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

PL52   Opolskie / Opole Voivodeship

Innovation Performance group (2021)	Emerging innovator
Population Density (per km² (2019)	101
Total population (2019)	946038
Proportion older 65y % (2019)	18,64%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Life and environmental science. Health products

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/PL52

PM-related Best Practices

Interregional Collaborations

INPRONKO - a collaboration project between western regions of Poland (Opole, Zachodniopomorskie, Lubuskie, Wielkopolskie, Dolnośląskie) aiming to establish and run a proton therapy center in Poznań	https://glospacjenta.pl/leczenie/390,eksperci-o-staraniach-na-rzecz-rozwoju-polskiej-protonoterapii

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Opole Voivodeship / Województwo Opolskie		Policy	https://www.opolskie.pl/	regional

Memberships/Representations In EU/international projects or initiatives in the area of PM

PL61   Kujawsko-Pomorskie / Kuyavian-Pomeranian Voivodeship

Innovation Performance group (2021)	Emerging innovator
Population Density (per km² (2019)	117
Total population (2019)	2055433
Proportion older 65y % (2019)	17,25%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Innovative and personalized diagnostics and a wide range of care and prevention, including advanced and modern tourism (rehabilitation, sanatoriums, recreation, etc.).

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/PL61

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

16/05/2023

Digital Innovation Hubs

Regional Digital Innovation Hub related to Internet of Things (IoT North Poland HuB)	http://www.iotnorthpoland.com/

Policy

FundingProgramme

PM-related Stakeholders

Collegium Medicum im. Ludwik Rydygier in Bydgoszcz, the Nicolaus Copernicus University in Toruń		Research	https://www.cm.umk.pl/	
Franciszek Lukaszczyk Oncology Centre in Bydgoszcz		Research	http://bip.co.bydgoszcz.pl/index.php?j=en	
Kujawsko-Pomorska Innovation Agency / Kujawsko-Pomorska Agencja Innowacji	KPAI	Innovation Agency	https://kpai.pl/	
Kuyavian-Pomeranian Voivodeship / Województwo Kujawsko-Pomorskie		Policy	https://www.kujawsko-pomorskie.pl/	regional
Toruń Regional Development Agency / Toruńska Agencja Rozwoju Regionalnego	TARR	Funding	https://www.tarr.org.pl/	
Toruński Park Technologiczny		Infrastructure	https://www.technopark.org.pl/	
University of Technology and Life Sciences Jan and Jędrzej Śniadeckich in Bydgoszcz	UTP	Research	https://www.utp.edu.pl/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

16/05/2023   not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

PL63   **Pomorskie / Pomeranian Voivodeship**

Innovation Performance group (2021)	Emerging innovator +
Population Density (per km² (2019)	131
Total population (2019)	2305077
Proportion older 65y % (2019)	16,52%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Medical technologies in the area of civilization and ageing-associated diseases. Modern solutions in prevention, diagnosis and therapy of civilisation diseases and ageing period; support systems for people with disabilities. Interactive technologies in an information-saturated environment. Multimodal human-machine interfaces; embedded systems for intelligent spaces, Internet of things; data transmission, databases, data security, processing of large data

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/PL63

PM-related Best Practices

Interregional Collaborations

KATY - AI-Empowered Personalised Medicine System to Improve Cancer Treatments	https://katy-project.eu/

Project

SAPHIRe Regional Report

Biobanks, Cohorts and genomic initiatives

Central Bank for Tissues and Genetic Material Medical University Gdansk	https://informator.gumed.edu.pl/422

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

ICT Pomeranian Cluster		Cluster	https://interizon.pl/en/	
International Centre for Cancer Vaccine Science at University of Gdańsk	ICCVS UG	Research	https://iccvs.ug.edu.pl/	
Medical University of Gdańsk	MUG	Research	https://mug.edu.pl/	
Pomeranian Development Agency / Agencja Rozwoju Pomorza	ARP	Innovation Agency	https://www.arp.gda.pl/	
Pomeranian Voivodeship / Województwo Pomorskie		Policy	https://pomorskie.eu/	regional

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

PL71   **Łódzkie / Łódź Voivodeship**

Lódzkie, or Łódź Voivodeship is a province in central Poland with a population of 2.5 million. The regions' S3 priorities in the field of medicine and pharmaceuticals include a focus on personalised medicine, biotechnological and generic medicines, new molecules, eHealth, optimisation of manufacturing processes, and process and organisational innovation in the healthcare system.

Innovation Performance group (2021)	Emerging innovator +
Population Density (per km² (2019)	135
Total population (2019)	2453167
Proportion older 65y % (2019)	19,59%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20 | Personalised medicine, biotechnological and generic medicines, new molecules, eHealth, and optimisation of manufacturing processes, process and organisational innovation in healthcare system.

url RIS3 2014-2020 | https://www.lodzkie.pl/files/134/rsi.pdf

PM-related Best Practices

Interregional Collaborations

SYNCHROS - SYNergies for Cohorts in Health: integrating the ROle of all Stakeholders	https://synchros.eu/

Project

Biobanks, Cohorts and genomic initiatives

Biobank Łódź	http://www.biobank.uni.lodz.pl/
Registry for Wolfram syndrome, Astrom syndrome, Bardet-Biedl syndrome and other rare diabetes syndromes contributing do EURO-WABB	https://www.orpha.net/consor/cgi-bin/ResearchTrials_RegistriesMaterials.php?lng=EN&data_id=107199&Registry

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Łódź Voivodeship / Województwo Łódzkie		Policy	https://www.lodzkie.pl/	regional
Medical University of Lodz			http://studymed.umed.pl/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

16/05/2023   not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

PL72   Świętokrzyskie / Świętokrzyskie Voivodship

Innovation Performance group (2021)	Emerging innovator
Population Density (per km² (2019)	105
Total population (2019)	1226243
Proportion older 65y % (2019)	19,21%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Information and communication technologies. Telecommunication, software services, data processing services, equipment

url RIS3 2014-2020

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Biobank Świętokrzyski Regional Science and Technology Center	http://biobank.rcnt.pl/

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Świętokrzyskie Voivodship / Województwo Świętokrzyskie		Policy	https://www.kielce.uw.gov.pl/	regional

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

PL81   ## Lubelskie / Lublin Voivodeship

Lublin Voivodeship, or Lublin region is a voivodeship, or region, located in southeastern Poland with a population of 2.2 million. The regions' S3 priorities in the field of medicine and health Include the use of biotechnology and medical nanotechnology, personalised pharmacotherapy and advanced materials in the value chains of diagnostics, therapy and rehabilitation. In the nutrition and dietetics sector there is a focus on prevention care and medical and health-oriented services.

Innovation Performance group (2021)	Emerging innovator +
Population Density (per km² (2019)	84
Total population (2019)	2097294
Proportion older 65y % (2019)	18,14%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 Telemedicine / Promotion of healthy lifestyle / new innovative methods of treatment and prevention / Development of services and products addressed to elderly people / New drugs, innovative food supplements, functional food and foodstuffs for particular nutritional uses / Innovative bioactive substances as potential next-generation medicines / Diagnostics and gene therapy / Personalised medicine / Integrated healthcare / Regenerative medicine / cardiological diseases, oncological diseases, aortic and peripheral vascular diseases including arterial hypertension / experimental stem cell therapy directed for patients with infantile cerebral palsy / senior care

url RIS3 2021-2027   https://www.lubelskie.pl/file/2021/03/REGIONALNA-STRATEGIA-INNOWACJI-WOJEW%C3%93DZTWA-LUBELSKIEGO-wersja-ostateczna-dost%C4%99pna-cyfrowo-marzec-2021.pdf

RIS3 priorities 2014-20   The use of biotechnology and medical nanotechnology, personalised pharmacotherapy and advanced materials in the value chains of diagnostics, therapy, rehabilitation, prevention care in the sectors of nutrition and dietetics, medical and health-oriented services.

url RIS3 2014-2020   https://www.lubelskie.pl/file/2021/01/RSI-2020.pdf

PM-related Best Practices
Interregional Collaborations

BioEndoCar - Biomarkers for diagnosis and prognosis of Endometrial Carcinoma	https://www.era-learn.eu/network-information/networks/transcan-2/third-joint-transnational-call-jtc-2016/biomarkers-for-diagnosis-and-prognosis-of-endometrial-
ELISE - European LIfe Science Ecosystems	https://www.interregeurope.eu/elise/
PNANO4BONE - Nanovectors engineered for plasma enhanced theranostics in regenerative medicine	https://www.era-learn.eu/network-information/networks/m-era-net-2/m-era-net-call-2016/nanovectors-engineered-for-plasma-enhanced-theranostics-in-regenerative-medicine

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Centre of Medical Simulation Medical University of Lublin			http://csm.umlub.edu.pl/index.php/en/	
Lublin Medicine Cluster		Cluster	http://medycyna.lublin.eu/	
Lublin University of Technology		Research	http://en.pollub.pl/	
Lublin Voivodeship / Województwo Lubelskie		Policy	http://www.lubelskie.pl/	regional
Medical University of Lublin			https://www.umlub.pl/en/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regional and Local Health Authorities (EUREGHA); European Regions Research and Innovation Network (ERRIN)

PL82   **Podkarpackie / Podkarpackie Voivodeship**

Innovation Performance group (2021)	Emerging innovator +
Population Density (per km² (2019)	118
Total population (2019)	2086135
Proportion older 65y % (2019)	16,61%
Mountain, remote, island?	non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	Medical diagnostic systems technologies; Advanced solutions, based on robotics, artificial intelligence and tools using big data analysis / Development of digital educational platform dedicated to broadly understood health promotion / Telemedicine / Nanomedicine
url RIS3 2021-2027	https://rsi.podkarpackie.pl/wp-content/uploads/2021/08/Regionalna-Strategia-Innowacji-WP-na-lata-2021-2030-Projekt-1-2.pdf
RIS3 priorities 2014-20	Quality of life. highest biological and health quality. Health. Innovative Techonlogies. ICT - horizontal smart specialisation supporting others.. Cloud computing to support other smart specialisations; creation of and access to data centres; development of extended reality applications (virtual, VR, AR) for tourism, commerce and distribution of quality of life products; Internet of Things; IT applications for care of patients and elderly; dissemination of applications supporting high quality of life (health, environmental quality monitoring, support for smart tourism, etc.).
url RIS3 2014-2020	https://rsi.podkarpackie.pl/wp-content/uploads/2018/10/RIS3_AKTUALIZACJA_16.11.2016_Finalna_1.pdf

PM-related Best Practices

Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Subcarpathian Voivodeship / Województwo Podkarpackie		Policy	https://rzeszow.uw.gov.pl/	regional

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

PL84   **Podlaskie / Podlaskie Voivodeship**

The Podlaskie region is located in the north-east of Poland and has a population of 1.2 million. The leading scientific institutions in the region are the University of Bialystok, the Bialystok University of Technology, the Higher School of Economics in Bialystok and the Medical University of Bialystok. In recent years the region has begun to invest in the development of personalised medicine.

Innovation Performance group (2021)	Emerging innovator
Population Density (per km² (2019)	58
Total population (2019)	1152074
Proportion older 65y % (2019)	17,57%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	Medical and life sciences sectors / e-Health / early diagnosis of illness / disease prevention and promotion of healthy life style / geriatric care / medical agro-food industry
url RIS3 2021-2027	https://strategia.wrotapodlasia.pl/pl/strategia_rozwoju_wojewdztwa_podlaskiego_2030/
RIS3 priorities 2014-20	The improvement in illnesses diagnosis and treatments employing biotechnology and bioinformatics in medicine. Tackling challenge of aging society by regeneration medicine, rehabilitation, physical therapy and health tourism.
url RIS3 2014-2020	https://strategia.wrotapodlasia.pl/pl/strategia_rozwoju_wojewdztwa_do_roku_2020/inteligentnespecjalizacjeregionu/dokumenty.html

PM-related Best Practices

Interregional Collaborations

Project

Bialystok PLUS		https://bialystok.plus/en/english/
CBI PLUS Innovative Research Center for the Prevention of Civilization Diseases and Individualized Medicine		https://www.umb.edu.pl/cbi_plus
MOBIT - Systematic biobanking, novel imaging techniques, and advanced molecular analysis for precise tumor diagnosis and therapy		https://www.sciencedirect.com/science/article/abs/pii/S18961261730041X?via%3Dihub

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Center of Artificial Intelligence			https://www.umb.edu.pl/en/main_news/19687,MUBs_Center_of_Artificial_Intelligence_is_a_laureate_of_the__Health_Visionary_of_2019_contest	
Medical University of Bialystok			https://www.umb.edu.pl/en	
Podlaskie Voivodeship / Województwo Podlaskie		Policy	https://wrotapodlasia.pl/	regional

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regional and Local Health Authorities (EUREGHA) ; European Regions Research and Innovation Network (ERRIN)

PL92   Mazowiecki regionalny / Mazovian Region

The Mazovian Voivodeship or Mazovia Province is the largest and most populous of the 16 Polish provinces, or voivodeships, with a population of 5.3 million. The regions' S3 priorities include: Professional services for business; Quality of life; Intelligent management systems and Safe food.

Innovation Performance group (2021)	Emerging innovator
Population Density (per km² (2019)	80
Total population (2019)	2327207
Proportion older 65y % (2019)	16,85%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	biotechnology ; biomedicine / Medtech - medical drugs and technologies (including among others: devices, biosensors, sensors devices, biosensors, flexible sensors, personal electronics, advanced materials and nanotechnologies for medical medical and health care purposes) /Healthtech
url RIS3 2021-2027	https://innowacyjni.mazovia.pl/publikacje/regionalna-strategia-innowacji-dla-mazowsza-do-2030-r.html
RIS3 priorities 2014-20	Quality of Life. Technological and organisational solutions used to provide social services, in particular in the field of education, health, safety, work and leisure time. Measures aimed at stimulating social innovation, development of social capital and counteracting the negative effects of the region's development polarisation.
url RIS3 2014-2020	https://innowacyjni.mazovia.pl/assets/uploads/Regionalna-Strategia-Innowacji-dla-Mazowsza-do-2020-roku.pdf

PM-related Best Practices

Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Institute of Electron Technology (ITE)	http://www.ite.waw.pl
IT and Expert Hub Supporting Biomedical Research, Technology and Education (BioMedHub)	http://www.bioinfo.imdik.pan.pl/
NASK National Research Institute	https://eng.nask.pl/
PIAP HUB	http://www.hub.piap.pl/

Policy

E-health for Mazovia	https://www.mazovia.pl/zdrowie/e-zdrowie-dla-mazowsza/
Health programs co-financed from the ESF	https://www.mazovia.pl/zdrowie/regionalne-programy-zdrowotne-dofinansowane-z-efs/

FundingProgramme

PM-related Stakeholders

Mazovian Voivodeship / Województwo Mazowieckie		Policy	https://www.mazovia.pl/	regional

Memberships/Representations In EU/international projects or initiatives in the area of PM

Other : European Union institutions forum; the Airport Regions Conference (ARC), on the Forum of Countries in the Visegrad Group, the PURPLE Initiative and the Network of European Region

PT — Portugal (National level)

Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_pt_english.pdf

Innovation Performance group (2021)	Moderate innovator
Population Density (per km² (2019)	113
Total population (2019)	10276617
Proportion older 65y % (2019)	21,84%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	Portugal as an international hub in R&D&I and benchmark for quality and competitiveness in the manufacture of products and in the provision of innovative services in the areas of Health, Biotechnology and Food (intersections and divergent technologies).
url RIS3 2021-2027	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/PT
RIS3 priorities 2014-20	Health. Translational medicine, health tourism, ageing, Portugal as a living laboratory for health solutions
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/PT

PM-related Best Practices

Interregional Collaborations

B1MG - Beyond 1 Million Genomes Pan-European initiative to create genome-based health data infrastructure	https://b1mg-project.eu/
DIGI-B-CUBE	https://digibcube.eu/
EATRIS - European infrastructure for translational medicinE	https://eatris.eu/
ECRIN - European Clinical Research Infrastructure Network	https://ecrin.org/
EDAH - Interconnecting innovation ecosystems for common European data space in Health	The future of health and care data in Europe	https://cordis.europa.eu/project/id/101070811
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
ERA CoBioTech	https://www.cobiotech.eu/home
ERA-NET NEURON Cofund2 togther for brain research	https://www.neuron-eranet.eu/
ERA-NET TRANSCAN-2 Aligning national/regional translational cancer research programmes and activities	https://www.era-learn.eu/network-information/networks/transcan-2
ERA-NET TRANSCAN-3	https://www.era-learn.eu/network-information/networks/transcan-3

EU-OPENSCREEN ERIC - European Infrastructure of Open Screening Platforms for Chemical Biology	https://www.eu-openscreen.eu/index.html
EuroNanoMed III (2016-2021) the new ERA-Net Cofund Action on Nanomedicine	https://euronanomed.net/
Helium (Health Innovation Experimental Landscape through Policy Improvement)	https://www.interregeurope.eu/helium/
MIRRI - Microbial Resource Research Infrastructure	https://www.mirri.org/
STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/
TO-REACH Transferring Innovations in Health Systems	https://to-reach.eu/
UNCAN - a European Initiative to UNderstand CANcer – Drafting a Blueprint for European Cancer Research	https://uncan.eu/

Project

Biobanks, Cohorts and genomic initiatives

Banco Português de Cérebros / Portuguese Brain Bank (Hospital Santo António CHPorto)	https://www.bancodecerebros.chporto.pt/
Biobanco.pt	https://www.biobanco.pt/?setLn=en
GenomePT	https://www.genomept.pt/
Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-

Digital Innovation Hubs

Policy

Basic Law of Health	https://dre.pt/application/conteudo/124417108
National Program of Genetics and Cancer / Programa Nacional de Genética e Cancro	http://www.cancrohereditario.pt/pt/
Plano Estratégico Nacional para a Telessaúde (PENTS) / National Strategic Plan for Telehealth	https://www.isfteh.org/files/media/PENTS_English_Version.pdf
Thematic Agenda for Research and Innovation on Health, Clinical and Translational Research	https://www.fct.pt/agendastematicas/sauinvclitrans.phtml.en

FundingProgramme

2017 Call for SR&TD Project Grants	https://www.fct.pt/apoios/projectos/concursos/2017/index.phtml.en
National open calls	https://www.fct.pt/

PM-related Stakeholders

Agency for Clinical Research and Biomedical Innovation / Agência de Investigação Clínica e Inovação Biomédica	AICIB	Funding	https://aicib.pt/	
ELIXIR Portugal		Infrastructure	https://elixir-portugal.org/	BioData.pt
Evita - Association to Support People with Changes in Genes Related to Hereditary Cancer / Associação de Apoio a Portadores de Alterações nos Genes Relacionados com Cancro Hereditário			https://www.evitacancro.org/	
Foundation for Science & Technology / Fundação para a Ciência e a Tecnologia	FCT	Funding	https://www.fct.pt/	national funding science research technology
Health Cluster Portugal		Cluster	http://www.healthportugal.com/	
Health Parliament Portugal			https://healthparliament.pt/	Comissão de Inovação e Valor em Saúde / Commission for Innovation and Value in Health
INESC TEC			https://www.inesctec.pt/en	science-based innovation through the transfer of new knowledge and technologies to industry, services and public administration.
Ministry of Health / Ministério da Saúde		Policy - Healthcare	https://www.portugal.gov.pt/pt/gc21/area-de-governo/saude	
Ministry of Science, Technology and Higher Education / Ministério da Ciência, Tecnologia e Ensino Superio	MCTES	Policy - Research & Innovation	https://www.portugal.gov.pt/pt/gc21/area-de-governo/ciencia-tecnologia-e-ensino-superior	national policy research science technology education
National Authority of Medicines and Health Products	INFARMED		https://www.infarmed.pt/web/infarmed-en/	
National Health Institute Doutor Ricardo Jorge	INSA	Research	http://www2.insa.pt/sites/INSA/English/Pages/NationalHealthInstituteDoutorRicardoJorge.aspx	
National School of Public Health / Escola Nacional de Saúde Pública	ENSP-NOVA		https://www.ensp.unl.pt/	
National Telehealth Center / Centro Nacional de TeleSaúde	CNTS		https://www.spms.min-saude.pt/centro-nacional-de-telesaude/	
Portugal's Biotechnology Industry Organization / Associação Portuguesa de Empresas de Bioindústria	P-Bio	Cluster	https://p-bio.org/en/	
Portuguese Association for Cancer Research / Associação Portuguesa de Investigação em Cancro	ASPIC	Funding	http://www.aspic.pt/	

Portuguese Society of Human Genetics / Sociedade Portuguesa de Genética Humana	SPGH	Cluster	http://spgh.net/	
Portuguese Society of Oncology / Sociedade Portuguesa de Oncologia	SPO		https://www.sponcologia.pt/pt/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); ICPerMed

PT11 — Norte / Northern Portugal

Norte or Northern Portugal is the most populous region in Portugal, ahead of Lisboa, with a population of 3.7 million. Portugal has a vibrant and innovative research and development ecosystem and a high quality health care system. Under the auspices of the Health Cluster Portugal (HCP), the Portuguese "Health ecosystem" is developing innovative projects in areas which include active and healthy ageing, translational and clinical research, ambient assisted living, eHealth, and health tourism. Particular strategic areas of interest include preventative, personalised and participatory medicine (diseases - neurodegenerative, cancer, cardiovascular, degenerative osteoarticular, inflammatory, infectious, metabolic).

Within Portugal universities, R&D institutions, hospitals and companies are all working in collaboration in the development of new solutions for improving human health.

Innovation Performance group (2021)	Moderate innovator
Population Density (per km² (2019)	169
Total population (2019)	3572583
Proportion older 65y % (2019)	20,47%
Mountain, remote, island?	> 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Consolidate links between research and business, especially in the areas of tissues, cancer, neurosciences and surgical procedures

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/PT11

PM-related Best Practices

Interregional Collaborations

EUCAN-Connect	https://eucanconnect.com/
GenomePT	https://www.genomept.pt/
Helium (Health Innovation Experimental Landscape through Policy Improvement)	https://www.interregeurope.eu/helium/
LEGACy - CeLac and European consortium for a personalized medicine approach to Gastric Cancer	https://legacy-h2020.eu/
Restore	https://www.restore-horizon.eu/

The Discoveries Centre for Regenerative and Precision Medicine project	https://thediscoveriesctr.eu/

Project

DOCnet - Diabetes & obesity at the crossroads between Oncological and Cardiovascular diseases – a system analysis NETwork towards precision medicine		https://project-docnet.up.pt/
SIRNAC - NOVEL siRNA THERAPIES AGAINST METASTATIC COLORECTAL CANCER		https://phyzat.com/
SIRNAGLAU - NOVEL siRNA THERAPIES AGAINST GLAUCOMA		https://phyzat.com/

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

iMan Norte Hub - Digital Innovation Hub for Customer-Driven Manufacturing @ Norte	https://www.imannortehub.com/
PRODUTECH Digital Innovation Hub National Platform	http://www.produtech.org

Policy

FundingProgramme

PM-related Stakeholders

2CA-Braga - Clinical Academic Center – Braga		Hospital	https://www.ccabraga.org/	clinical academic centre
Abel Salazar Institute of Biomedical Sciences of the University of Porto (U.Porto) / Instituto de Ciências Biomédicas Abel Salazar da U	ICBAS	Research	https://sigarra.up.pt/icbas/pt/web_page.inicial	
Centre for Innovative Biomedicine and Biotechnology of the University of Coimbra	CIBB	Research	https://www.cibb.uc.pt/	

Centro de Genética Médica Jacinto de Magalhães Uni	CGMJM	Research	https://www.chporto.pt/cgmjm	
Centro Hospitalar Universitário de São João	CHUSJ	Hospital	http://portal-chsj.min-saude.pt	clinical academic centre
i3S		Research	https://www.i3s.up.pt/	Cancer, Host Interaction and Response, and Neurobiology and Neurologic Disorders
Institute of Molecular Pathology and Immunology of the University of Porto	Ipatimup	Research	https://www.ipatimup.pt/	
North Regional Health Administration / Administração Regional de Saúde do Norte	ARS Norte	Policy - Healthcare	http://www.arsnorte.min-saude.pt/	
Northern Regional Coordination and Development Commission / Comissão de Coordenação e Desenvolvimento Regional do Norte	CCDR-N		https://www.ccdr-n.pt/	
Portuguese Institute of Oncology in Porto Francisco Gentil	IPO Porto	Research	https://ipoporto.pt/	
School of Medicine of the University of Minho / Escola de Medicina da Universidade do Minho		Research	https://www.med.uminho.pt/en	
University Hospital Center of Porto / Centro Hospitalar Universitário do Porto		Hospital	https://www.chporto.pt/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

PT15   Algarve

The Algarve is the southernmost region of continental Portugal, with a population of 451,000. It incorporates sixteen different municipalities. The strategic vision for the region is to "Transform the Algarve in 2020 to a dynamic, inclusive and sustainable region, capable of generating more and better jobs, produce goods and services with high added value, using innovation and scientific knowledge…."

The region will focus on, amongst others, S3 priorities in the emerging sectors of health and life sciences, with a focus on addressing social needs, such as care for older people from abroad, and rehabilitation.

Innovation Performance group (2021)	Emerging innovator +
Population Density (per km² (2019)	89
Total population (2019)	438864
Proportion older 65y % (2019)	21,64%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Health and life sciences that address social needs, such as care for older people from abroad, and rehabilitation (based on a growing market of foreign people living in the region).
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/PT15

PM-related Best Practices
Interregional Collaborations

GenomePT	https://www.genomept.pt/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Algarve Smart Destination, Digital Innovation Hub	http://www.algarvesmartdestination.com

Policy

FundingProgramme

PM-related Stakeholders

Algarve Regional Health Administration / Administração Regional de Saúde do Algarve	ARS Algarve	Policy - Healthcare	http://www.arsalgarve.min-saude.pt/	
Regional Coordination and Development Commission of the Algarve Region / Comissão de Coordenação e Desenvolvimento Regional do Algarve	CCDR Algarve		https://www.ccdr-alg.pt/site/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

PT16   Centro / Central Portugal

Centro, or Central Portugal has a population of 2.3 million. The region has three public universities: the University of Coimbra, the Aveiro University; and the University of Beira Interior. There are also five state-run polytechnical institutes: Castelo Branco Polytechnic Institute; Coimbra Polytechnic Institute; Guarda Polytechnic Institute; Leiria Polytechnic Institute; and Viseu Polytechnic Institute.

S3 priorities include a focus on health and well-being and building on strong Institutions (hospitals, HEIs and research), natural resources and assets and a focus on ageing. The region is involved in a number of major initiatives including In2Genome, OncoAlvo, and GenomePT.

Innovation Performance group (2021)	Moderate innovator -
Population Density (per km² (2019)	79
Total population (2019)	2216569
Proportion older 65y % (2019)	24,32%
Mountain, remote, island?	interior is mountainous

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	Mobilising technologies for quality of life / lifelong health / prevention, diagnosis and treatment/ promotion and maintenance of physical and mental health / Active and Healthy Ageing / health care, social support and well-being / early diagnosis / precision medicine / new treatments and therapies (e.g. cellular, genetic, biological pharmacological, regenerative, psychological intervention, .. / research platforms, pre-clinical, clinical and clinical trials, including patient/population cohorts, biobased patient/population cohorts, biobanks and biological platforms (cells, organoids, among others) / advanced precision therapies (e.g. pharmacological, gene and cell-based) and those based on new materials (e.g. bio/nanomaterials) & medical devices (e.g. for physical and cognitive rehabilitation, monitoring and treatment of chronic diseases, or home hospitalisation), as well as intervention programmes intervention programmes to optimise mental health
url RIS3 2021-2027	http://ris3.ccdrc.pt/index.php/ris3-documentacao/regional/revisao-da-ris3-do-centro/viewdocument
RIS3 priorities 2014-20	Build on strong institutions (hospitals, HEIs and research), natural resources and assets. Focus on ageing. advanced materials (nano, electronic, bio) ehealth. ICT and Electronics. Built on strong capabilities especially in universities with a focus on , e-health, e-learning, cloud computing
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/PT16

PM-related Best Practices

SAPHIRe Regional Report

not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Interregional Collaborations

CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
GenomePT	https://www.genomept.pt/
HealthChain - Boosting value chains in Health at regional and EU level	https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/how-to-participate/org-details/969492400/project/101094676/program/44416173/details
Smartwork - Smart Age-friendly Living and Working Environment	https://www.smartworkproject.eu/
The Discoveries Centre for Regenerative and Precision Medicine project	https://thediscoveriesctr.eu/

Project

In2Genome - integrative approach in the diagnostics of genetic diseases		http://www.genoinseq.com/en/home/rddprojects/genomics/in2genome-integrative-approach-in-the-diagnostics-of-genetic-diseases/
OncoAlvo - Optimizing Technological Innovations for Cancer Therapy Personalization		https://www.heartgenetics.com/about-us/financed-projects/oncoalvo/

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

CONNECT5	https://www.connect5.pt
DIATOMIC Health	https://diatomic.eu/DiatomicPortal/

Policy

FundingProgramme

PM-related Stakeholders

Biocant Park		Infrastructure	http://biocantpark.com/	
Centre's Regional Coordination and Development Commission / Comissão de Coordenação e Desenvolvimento Regional do Centro	CCDRC		http://www.ccdrc.pt/	
Coimbra Hospital and University Center	CHUC	Hospital	https://www.chuc.min-saude.pt/	clinical academic centre
Instituto Pedro Nunes	IPN		https://www.ipn.pt/	promotion of innovation and the transfer of technology ; incubator
Portuguese Institute of Oncology in Coimbra Francisco Gentil	IPO Coimbra	Research	http://www.ipocoimbra.min-saude.pt/	
Regional Health Administration of the Center / Administração Regional de Saúde do Centro	ARS Centro	Policy - Healthcare	http://www.arscentro.min-saude.pt/	
University of Coimbra	UC	Research	https://www.uc.pt/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); Other : BridgeHead - EIT Health

PT17   Lisboa / Lisbon

Innovation Performance group (2021)	Moderate innovator
Population Density (per km² (2019)	1016
Total population (2019)	2846332
Proportion older 65y % (2019)	21,84%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 Precision Medicine (Individualisation of lifestyles in the prevention of disease - individual and mass ; pharmacogenomics ; "cancer genomics", prevention, drugs immunotherapy; / healthy ageing, prevention of chronic diseases, / Integrated Health System / Value Based Healthcare / Creation of a bio-bank in the Greater Lisbon area, to support cellular therapies and developments in precision medicine / Consolidation of intervention in regenerative medicine and tissue engineering, including research and application of stem cell-based technologies / AI & big data for health / digital transition in Health / new radiotherapies technologies / Biotechnology & Pharmaceutical Bioengineering and Medical Devices / e-Health / clinical research / health promotion prevention of illness, primary health care, differentiated hospital care, rehabilitation and palliative care

url RIS3 2021-2027   http://www.ccdr-lvt.pt/downloads/RIS3_Lisboa_2021_2027_aprovada_CRLVT11set

RIS3 priorities 2014-20   Health research, technologies and services. Pharmaceutical, medical equipment and devices. Healthy ageing.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/PT17

PM-related Best Practices

Interregional Collaborations

GenomePT	https://www.genomept.pt/
iNEXT-Discovery Project - Infrastructure for transnational access and discovery in structural biology	https://cordis.europa.eu/project/id/871037
KATY - AI-Empowered Personalised Medicine System to Improve Cancer Treatments	https://katy-project.eu/
PROPHET - a PeRsOnalized Prevention roadmap for the future HEalThcare	https://cordis.europa.eu/project/id/101057721
WideHealth - Widening Research on Pervasive and eHealth	https://cordis.europa.eu/project/id/952279

SAPHIRe Regional Report

Project

Biobanks, Cohorts and genomic initiatives

Biobanco-IMM	https://www.orpha.net/consor/cgi-
Centro de Estudos de Doenças Crónicas / Center for the Study of Chronic Diseases (CEDOC) biobank at NOVA Medical School	http://ihmtweb.ihmt.unl.pt/Download/BIOTROP/BIOTROP_2016-2020_IMPLEMENTATION_vsf.pdf
RENAC - Portuguese registry of congenital anomalies (contributes to the EUROCAT network)	https://www.orpha.net/consor/cgi-bin/ResearchTrials_RegistriesMaterials.php?lng=EN&data_id=31021&Registry

Digital Innovation Hubs

HUB for Agriculture (HUB4AGRI)	http://hub4agri.com/
inNOVA4TECH hub – inNOVAtion Hub for TECHnology Transfer	http://www.innova4tech.uninova.pt/

Policy

FundingProgramme

PM-related Stakeholders

Association for Research and Development in Sciences	FCiências.ID	Research	https://www.lasige.pt/	
Champalimaud Foundation		Research	https://www.fchampalimaud.org/	Fusion Research to bridge the gap between the research developed in the laboratory and the clinical application of our scientific advances. research-based clinics, clinically based research and advanced technology underlying all areas.

Commission for Regional Development and Coordination of Lisbon and Tagus Valley / Comissão de Coordenação e Desenvolvimento Regional de Lisboa e Vale do Tejo	CCDR LVT		www.ccdr-lvt.pt/en	
Nova Medical School		Research	https://www.nms.unl.pt/en-us/NMS	
Portuguese Institute of Oncology in Lisbon Francisco Gentil	IPO Lisboa	Research	https://www.ipolisboa.min-saude.pt/	
Regional Health Administration of Lisbon and Tagus Valley / Administração Regional de Saúde de Lisboa e Vale do Tejo	ARSLVT	Policy - Healthcare	https://www.arslvt.min-saude.pt/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

PT18   Alentejo

Innovation Performance group (2021)	Emerging innovator +
Population Density (per km² (2019)	23
Total population (2019)	705478
Proportion older 65y % (2019)	25,47%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 no health priorities (except digitalisation of economy, inclusiveness, proximity services or related to marine economy)

url RIS3 2021-2027   https://www.ccdr-a.gov.pt/docs/ccdra/gestao/ER2030.pdf

RIS3 priorities 2014-20   not health related

url RIS3 2014-2020   https://www.iapmei.pt/PRODUTOS-E-SERVICOS/Incentivos-Financiamento/Documentos-Incentivos/EREI-Alentejo.aspx

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Alentejo Regional Development Agency / Agência de Desenvolvimento Regional do Alentejo	ADRAL	Funding	https://www.adral.pt/pt/Paginas/home.aspx	
Alentejo Regional Development and Coordination Commission / Comissão de Coordenação e Desenvolvimento Regional do Alentejo	CCDR Alentejo		https://www.ccdr-a.gov.pt/	
Alentejo Science and Technology Park	PACT	Infrastructure		
new Central Hospital of Alentejo by 2023		Hospital		
Regional Health Administration of Alentejo / Administração Regional de Saúde do Alentejo	ARS Alentejo	Policy - Healthcare	http://www.arsalentejo.min-saude.pt/Paginas/default.aspx	
University of Evora		Research	https://www.uevora.pt/en	

Memberships/Representations In EU/international projects or initiatives in the area of PM

16/05/2023   not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

PT20   Região Autónoma dos Açores /Autonomous Region of Azores

Innovation Performance group (2021)	Emerging innovator
Population Density (per km² (2019)	105
Total population (2019)	242846
Proportion older 65y % (2019)	14,57%
Mountain, remote, island?	Remote Islands, > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/PT20

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Biobanco AZORBIO (Azores Biobank)	http://www.seebmo.org/azorbio/azorbio.htm

SAPHIRe Regional Report

Digital Innovation Hubs

Azores Digital Innovation Hub	https://nonagon.pt/dih/

Policy

FundingProgramme

PM-related Stakeholders

Azores Oncology Center Doctor José Conde	COA	Research	https://portal.azores.gov.pt/web/coa	
Região Autónoma dos Açores		Policy	https://portal.azores.gov.pt/	
Regional Fund for Science and Technology	FRCT	Funding	http://frct.azores.gov.pt/en/	
Specialized Service of Epidemiology and Biology Molecular of the Hospital de Santo Espírito da Ilha Terceira	SEEBMO	Research	http://www.seebmo.org/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

PT30   Região Autónoma da Madeira /Autonomous Region of Madeira

Madeira (regional capital: Funchal) is an archipelago located in the North Atlantic Ocean. It is one of the two autonomous regions of Portugal, with a population of 255,000. The following strategic priority areas have been selected in Madeira's RIS3 framework: Tourism; Sea technologies and resources; Health and wellness; Agro-food quality; Sustainability and infrastructure asset management; Bio-sustainability; Energy, mobility and climate change; Information and communication technologies (ICT).

Innovation Performance group (2021)	Emerging innovator +
Population Density (per km² (2019)	318
Total population (2019)	253945
Proportion older 65y % (2019)	16,66%
Mountain, remote, island?	Remote Islands, > 50 % of population live & > 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Ageing, genetic and infectious diseases, oncology

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/PT30

PM-related Best Practices

Interregional Collaborations

HoCare - Delivery of Innovative solutions for Home Care by strengthening quadruple-helix cooperation in regional innovation chains	https://www.interregeurope.eu/hocare/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Madeira Digital Innovation HUB	https://www.madeiradih.com
SIH: Smart Islands Hub	https://smartislandshub.eu/

Policy

FundingProgramme

PM-related Stakeholders

Região Autónoma da Madeira		Policy	https://www.madeira.gov.pt/	
Serviço de Saúde da Região Autónoma da Madeira, E.P.E.	SeSaRAM	Policy - Healthcare	https://www.sesaram.pt/portal/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

16/05/2023

RO   România / Romania (National level)

Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_romania_english.pdf   For PM-related competences see https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_5d469b42e5c14e68954a0294bce6a42f.pdf

Innovation Performance group (2021)	Emerging innovator
Population Density (per km² (2019)	83
Total population (2019)	19414458
Proportion older 65y % (2019)	18,52%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Nanobiotechnology. Environmental and industrial biotechnologies. Bioanalysis. Medical and pharmaceutical biotechnologies. In vitro/ in vivo assessment for generic drugs. Systemic, local and targeted drug delivery and technologies to optimize the biopharmaceutical and pharmacokinetic profile. Molecular design, (bio)synthesis, semisynthesis, high-performance screening.
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/RO

PM-related Best Practices

Interregional Collaborations

ERA CoBioTech	https://www.cobiotech.eu/home
ERA-NET TRANSCAN-3	https://www.era-learn.eu/network-information/networks/transcan-3
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/
EuroNanoMed III (2016-2021) the new ERA-Net Cofund Action on Nanomedicine	https://euronanomed.net/
HoCare - Delivery of Innovative solutions for Home Care by strengthening quadruple-helix cooperation in regional innovation chains	https://www.interregeurope.eu/hocare/
MIRRI - Microbial Resource Research Infrastructure	https://www.mirri.org/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

Digital Agenda for Romania 2014-2020	https://www.comunicatii.gov.ro/agenda-digitala-pentru-romania-2020/
National Strategy on Health 2014-2020 "Health for Prosperity"	http://old.ms.ro/upload/Anexa%201%20-%20Strategia%20Nationala%20de%20Sanatate%202014-2020.pdf

FundingProgramme

PM-related Stakeholders

Clustero		Cluster	https://clustero.eu/	
Executive Agency for Higher Education, Research, Development and Innovation Funding / Unitatea Executiva Pentru Finantarea Invatamantului Superior a Cercetarii Dezvoltarii si Inovarii	UEFISCDI	Funding	https://uefiscdi.gov.ro/	national execution & funding
Medical Cluster "Health Romania" /Clusterul Medical Sănătate Români		Cluster	https://www.sanatateromania.ro/en/	
Ministry of Education / Ministerul Educaţiei şi Cercetării		Policy	https://www.edu.ro/	national policy
Ministry of Health / Ministerul Sănătăţii		Policy - Healthcare	http://www.ms.ro/	national policy
Ministry of Research, Innovation and Digitalisation / Ministerul Cercetării, Inovării şi Digitalizării	MCID	Policy - Research & Innovation	https://www.research.gov.ro/	national policy

National Centre for Technical and Vocational Education and Training Development / Centrul Național de Dezvoltare a Învățământului Profesional și Tehnic			https://www.tvet.ro/	
National Institute of Public Health / Institutul National de Sanatate Publica			https://www.insp.gov.ro/	
RoHealth The Health and Bioeconomy Cluster		Cluster	https://rohealth.ro/en	national
Romanian Association for Technology Transfer and Innovation	ARoTT		http://www.arott.ro/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

ICPerMed

RO11   Nord-Vest / North West

The North-West Region (Northern Transylvania) is one of the 8 development regions in Romania and includes 6 counties: Bihor, Bistrita-Nasaud, Cluj, Maramures, Satu-Mare, Salaj. The region has a strategic position, being located on the border with Hungary and Ukraine, and inside the country it borders the Central, Western and North-Eastern regions.

Innovation Performance group (2021)	Emerging innovator -
Population Density (per km² (2019)	75
Total population (2019)	2552112
Proportion older 65y % (2019)	17,35%
Mountain, remote, island?	mix of non-mountain & "> 50 % of population live and > 50 % of surface in mountain areas"

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027   Health and Welfare / telemedicine / prevention / personalised treatments with novel products (e.g. nutraceuticals, phytochemicals/phytoproducts) / oncology / implantology & transplantology / nutrition / dietetics / biosimilars & biopharmaceuticals / Genomics, transcriptomics, proteomics / early diagnosis & (remote) monitoring / Nanotechnologies and nanomethods for applications in targeted diagnosis and therapy / Active and independent ageing / big data for health research / innovative medical devices & robotics / Pharmacogenomics and pharmacotranscriptomics / patient specific / Bioinformatics with a focus on oncology / Biomedical engineering

url RIS3 2021-2027   https://www.nord-vest.ro/wp-content/uploads/2020/09/RIS3NV-2021-2027_200914.pdf

RIS3 priorities 2014-20   Encompasses education and research activities due to a high number of hospitals and other public and private health care facilities, as well as high number of health professionals. Specialization niches: innovations in oncology, especially personalized treatments with new products (eg: nutraceutics, phytochemicals / phytoproducts) as well as prevention; innovation in balneology through new goods and services based on local water resources; innovations in implantology and transplantology, nutrition / dietetics and podiatry using new technologies; respectively in psychology / psychiatry (focusing on new treatment methods such as virtual reality, interaction with animals); new pharmaceutical products for common diseases (eg. hybrid drugs) reducing side-effects, new developments in the field of biosimilars and biopharmaceuticals, including phytochemicals; special niche at regional level is the hemoglobin-based blood substitute, being the only RDI project leading to disruptive innovation.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/RO11

PM-related Best Practices

Interregional Collaborations

BeWell – Blueprint Alliance for a Future Health Workforce Strategy on Digital and Green Skills	https://ehma.org/bewell-blueprint-alliance-for-a-future-health-workforce-strategy-on-digital-and-green-skills/
BOOST - Boosting Smart Regional Innovation | Ecosystems Interregional collaboration to form an EU-wide innovation ecosystem	https://cordis.europa.eu/project/id/101070737
DIHsP4 - Action plan to shape corridors among DIHs to foster innovation ecosystems and accelerate the deployment of the P4 Medicine Paradigm| Fostering collaboration among Digital Innovation Hubs in the area of P4 medicine	https://cordis.europa.eu/project/id/101070719
ImmunoSep - Personalized immunotherapy in sepsis: a precision medicine based approach	https://www.immunosep.eu/
TO-REACH Transferring Innovations in Health Systems	https://to-reach.eu/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Cluj IT Cluster	http://www.clujit.ro/
Digital Innovation Hub for Society (DIH4S)	https://www.dih4society.ro
Transilvania Digital Innovation Hub - Transilvania DIH	https://transilvaniait.ro/en/trasylvania-dih/

Policy

FundingProgramme

PM-related Stakeholders

Babeș-Bolyai University	UBB	Research	https://www.ubbcluj.ro/en/	
Central Regional Development Agency (ADR) / Agenţia de Dezvoltare Regională (ADR) Nord-Vest		Innovation Agency	https://www.nord-vest.ro/	
Cluj IT		Cluster	https://www.clujit.ro/	
Fresh Blood - improving healthcare through technology			http://freshblood.ro/	
Iuliu Haţieganu University of Medicine and Pharmacy Cluj-Napoca	UMF Cluj	Research	http://www.umfcluj.ro/	
National Institute for Research and Development of Isotopic and Molecular Technologies	INCDTIM	Research	http://cit.itim-cj.ro/tehnologii/oferta-de-rezultate/sanatate-si-farma/sanatate-si-farma-sanatate-si-farma/	
National Research and Development Institute for Isotopic and Molecular Technologies Cluj-Napoca / Institutul Naţional de Cercetare Dezvoltare pentru Tehnologii Izotopice şi Moleculare Cluj-Napoca	INCDTIM	Research	http://en.itim-cj.ro/	
Oncological Institute „Prof. Dr. Ion Chiricuţă "	IOCN	Research	http://www.iocn.ro/en	
Universitatea Tehnică din Cluj-Napoca	UTCN	Research	https://www.utcluj.ro/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

PM-related Stakeholders

Babeș-Bolyai University	UBB	Research	https://www.ubbcluj.ro/en/	

RO12   Centru / Centre

Centru is a development region in Romania with a population of 2.3 million. The regions' S3 priorities include, amongst others, a focus on medicine and pharmaceuticals including personalized medicine models based on data provided through computer simulations, based on nano imaging. The priorities also aim to address fundamental research and preventive medicine strategies - developing knowledge of human integrative biological systems.

Innovation Performance group (2021)	Emerging innovator -
Population Density (per km² (2019)	68
Total population (2019)	2318272
Proportion older 65y % (2019)	18,11%
Mountain, remote, island?	Majority is hilly or mountainous

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 e-Health / healthy food / Nanotechnologies / Digitalization / Big Data / Preventive Medicine / Personalised Medicine / Societal Challenges / Bioeconomy

url RIS3 2021-2027   http://www.adrcentru.ro/wp-content/uploads/2021/01/RIS3Centru_2021-2027.pdf

RIS3 priorities 2014-20   Invasive and noninvasive research in cardiac and vascular pathology in adults; Ocular Surface Research; Pediatric Respiratory Medicine; Nanobiology and nanotechnology; Replacement of heart valves using stem cells; Neuroprotection and angiogenesis; Regeneration of heart valves; Pediatric cardiology and cardiovascular surgery; Advanced research in heart transplant and heart-lung tissue correlated with cardiovascular biology regeneration; Therapies for prevention of dementia associated with ischemic stroke; Personalized medicine models based on data provided through computer simulations based on nano imaging; Phase I clinical trials, therapeutic benefit studies (phase II-III) and bioequivalence studies; Research and telemedicine in neurological diseases in children; R&I in hybrid imaging and advanced telemedicine in Gastroenterology and Cardiology; Multimodal imaging platform MRI / CT of high performance for computational medicine application, nanoparticles and hybrid imaging in atherothrombotic disease research; Innovative method of medical rehabilitation by with platelet-rich plasma and Aerocriotherapy treatment; Fundamental research and preventive medicine strategies - developing knowledge of human integrative biological systems; Modern therapies development directed to chemical, genetic and cellular and standardization according to bioethical standards; Medical and pharmaceutical Manufacturing Capabilities; Basic pharmaceutical products and pharmaceutical preparations: drugs for liver health, immunity, metabolism and alimentary tract, cardiovascular system, nervous system, sensory organs, genitourinary system; oncology drugs, injectable and oral; dietary supplements, drugs and supplements for central nervous system, systemic antifungal, digestive system and metabolism, inflammatory and antirheumatic, anthelmintic; Irradiation, electromedical and electrotherapeutic devices; Medical devices and instruments for laboratory - orthopedic and dental devices.

url RIS3 2014-2020   http://www.adrcentru.ro/wp-content/uploads/2018/07/ajxyl_1.-RIS3.pdf

PM-related Best Practices

Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Futures of Innovation and Technology Digital Innovation Hub	https://digitalinnovationhub.fit/
Sibiu Smart Systems	http://centers.ulbsibiu.ro/incon/dih

Policy

FundingProgramme

PM-related Stakeholders

PM-related Best Practices

Center for Fundamental Research and Preventive Strategies in Medicine	UniTBv	Research	https://icdt.unitbv.ro/ro/centre-de-cercetare/centrul-de-cercetare-fundamentala-si-strategii-preventive-in-medicina.html	
Central Regional Development Agency (ADR) / Agenţia pentru Dezvoltare Regională (ADR) Centru		Innovation Agency	http://www.adrcentru.ro/	
Emergency Institute for Cardiovascular Diseases and Transplantation Tg. Mureş	IUBCvT	Hospital	http://ibcvt.ro/	
Innovation and Technology Transfer Center	CITT – I4T	eHealth Business Supporter	https://www.iceberg.ro/en/innovation-and-technology-transfer-center-citt-i4t/	e-Health
Lucian Blaga University of Sibiu		Research	https://cercetare.ulbsibiu.ro/ro/	
Medical Centre Cardiomed in Târgu-Mureș		Hospital	https://www.cardiomedtgm.ro/	
Tirgu Mures Emergency Clinical County Hospital / Spitalul Clinic Judeţean de Urgenţă Târgu Mureş	SCJU Targu Mures	Hospital	https://www.spitalmures.ro/en/	
University of Medicine, Pharmacy, Sciences and Technology of Târgu Mureş	UMFST Târgu-Mureș	Research	https://www.umfst.ro/en/home.html	

Memberships/Representations In EU/international projects or initiatives in the area of PM

RO21   Nord-Est / North East

The Nord-Est region covers the north-eastern area of Romania, consisting of 6 counties (Suceava, Neamţ, Bacău, Vaslui, Iaşi and Botoşani). It has a population of 3.2 million. It is the largest and most populated region in Romania. The regions' S3 priorities include: ICT - creative media; Textile - clothing sector; Biotechnology sector; Agro-food sector; Healthy Ageing, Healthy Living and Tourism; Energy & Environment.

Innovation Performance group (2021)	Emerging innovator -
Population Density (per km² (2019)	88
Total population (2019)	3198564
Proportion older 65y % (2019)	18,01%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 health 1. Medical biotechnologies and pharmaceutical (therapies , new substances active substances, advanced nanobiotechnologies, advanced materials, regenerative medicine) 2.Precision medicine (devices, technologies, instruments and methods of diagnosis, treatment and prognosis, support interdisciplinary care, interrelationmicroorganisms with environment, animals and humans) 3.Preventive medicine (Medical devices, technologies, instruments and prevention methods, advanced systems and therapies for quality enhancement of life) 4. e-Health (e-competent, ICT solutions for prevention, diagnosis and management of management, AI in medicine, personalised imaging) 5. Biosafety (collaboration veterinary medicine - human medicine: Antibiotic resistance, research in the field of agents zoonoses, emerging diseases, innovative methods prevention - plasma and PAW)

url RIS3 2021-2027   https://www.adrnordest.ro/storage/2021/06/Strategia-de-Cercetare-si-Inovare-pentru-Specializare-Inteligenta-ed.3-rev.1.pdf

RIS3 priorities 2014-20   Biotechnology sector (bio nano-technologies and medical/pharmaceutical biotechnology, food security sustainable agriculture and bio-economy, agricultural biotechnology and industrial biotechnology)

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/RO21

PM-related Best Practices
Interregional Collaborations

MEDIC-NEST project - Precision MEDIcine Clusters integrating Digital Technologies for New EcoSystems in HealThcare	https://echalliance.com/medic-nest-kick-off-cosme-project-on-precision-medicine-clusters-integrating-digital-technologies-for-new-ecosystems-in-healthcare/
S3P4PM - Smart Specialisation Platform for Personalised Medicine	https://s3platform.jrc.ec.europa.eu/personalised-medicine
Vanguard Initiative Smart Health Pilot Project	https://www.s3vanguardinitiative.eu/pilots/smart-health
Vanguard Initiative Smart Health Pilot Project Demo Case "Inter-regional platform for new radiotracers development in personalized medicine (TRACE-MED)"	https://www.imago-mol.ro/the-imago-mol-cluster-has-developed-the-initiative-inter-regional-platform-for-new-radiotracers-development-in-personalized-medicine-trace-med/?lang=en

Project

HOPE – How Oncogenetics Predicts & Educates		https://hope.projects.umfiasi.ro/

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

North- East Romania DIH - ˝Digital Innovation Zone˝	https://digital-innovation.zone

Policy

Health Strategic Agenda of IMAGO-MOL Cluster	https://www.imago-mol.ro/

FundingProgramme

PM-related Stakeholders

bioROne - BioTech Cluster in North-East Romania		Cluster	http://www.biotechnologie.ro/	regional
Center of Fundamental Research and Experimental Development in Translational Medicine	TRANSCEND	Research	http://www.transcend.iroiasi.ro/	Radiotracer synthesis and research unit (cyclotron and radiopharmaceutical laboratories) and a PET-CT translational diagnostic unit

Centru Advanced Medical Research and Development / Centru Avansat de Cercetare-Dezvoltare in Medicina	CEMEX	Research	http://www.cemex.umfiasi.ro/	Physiopharmacology Laboratory Cellular Imagistics Laboratory Molecular analyzing Laboratory PET/MRI/Echo/Rx Laboratory
Grigore T. Popa University of Medicine and Pharmacy in Iași	UMFIASI	Research	https://www.umfiasi.ro/en	
North East Regional Development Agency / Agentia pentru Dezvoltare Regionala Nord-Est		Innovation Agency	www.adrnordest.ro	regional
North-East Innovative Regional Cluster for Structural and Molecular Imaging	IMAGO-MOL	Cluster	https://www.imago-mol.ro/?lang=en	
Regional Institute of Oncology / Institutul Regional de Oncologie Iasi	IRO IASI	Research	https://www.iroiasi.ro/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

RO22   Sud-Est / South East

Innovation Performance group (2021)	Emerging innovator -
Population Density (per km² (2019)	71
Total population (2019)	2396171
Proportion older 65y % (2019)	19,54%
Mountain, remote, island?	non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 Agri-food and biotechnologies / ICT AI for health / Tourism (development of a tourism concept that combines health with recreational, based
on healthy lifestyle (alternative therapies, healthy food, movement))

url RIS3 2021-2027   https://www.adrse.ro/Documente/Planificare/RIS3/SRSI_SE_2021-2027_eng.pdf

RIS3 priorities 2014-20   ICT, High Tech, Nanotechnologies and Advanced Materials. ICT - university centers offering specialization and developing research projects in the field; the Software Park in Galati employs labour force with a high degree of specialization.High Tech - uses the latest technology. BiotechnologiesNanotechnologies and Advanced Materials - technological developments at nanoscale

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/RO22

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Danubius University of Galati		Research	https://univ-danubius.ro/	
Innovative cluster for health / Clusterul Inovativ pentru Sănătate Dunărea de Jos		Cluster	https://clustersanatate.ro/	
IT&C Cluster Lower Danube		Cluster	https://itcluster.ro/	
South East Regional Development Agency / Agentia pentru Dezvoltare Regionala Sud-Est		Innovation Agency	http://www.adrse.ro/ADR/Contact.aspx	

Memberships/Representations In EU/international projects or initiatives in the area of PM

RO31   Sud - Muntenia

Innovation Performance group (2021)	Emerging innovator -
Population Density (per km² (2019)	86
Total population (2019)	2929832
Proportion older 65y % (2019)	20,50%
Mountain, remote, island?	non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 health

url RIS3 2021-2027   https://www.adrmuntenia.ro/download_file/article/557/SSI-Sud-Muntenia-2021-2027-14-10.pdf

RIS3 priorities 2014-20   Bioeconomy. High-tech research and industry. Products incorporating advanced systems, advanced manufacturing processes that have the high added value. Measuring instruments, testing, monitoring and control, monitoring and remotely intervention systems, electronics, robots.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/RO31

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

SAPHIRe Regional Report

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

South Muntenia Regional Development Agency / Agentia pentru Dezvoltare Regionala Sud - Muntenia		Innovation Agency	https://www.adrmuntenia.ro/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

RO32   **Bucureşti - Ilfov**

The Bucureşti region is a development region in Romania. It encompasses the national capital, Bucharest, as well as the surrounding Ilfov County. The regions' main function is to co-ordinate regional development projects and manage funds from the European Union.

Innovation Performance group (2021)	Emerging innovator +
Population Density (per km² (2019)	1322
Total population (2019)	2315173
Proportion older 65y % (2019)	16,15%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 e-health/ Biotechnology, generic instruments and medical technologies (screening, diagnosis and monitoring; innovative therapeutic approaches and interventions, etc.) / Development of innovative prophylactic and therapeutic products, probiotics, food supplements / nanotechnologies / bioeconomy / quality of life / Optoelectonics health (biomedical devices, laser biostimulators, laser microscope, ophthalmology, etc.),

url RIS3 2021-2027   https://www.adrbi.ro/media/2169/ris3-bi_varianta_02nov.pdf

RIS3 priorities 2014-20   na

url RIS3 2014-2020

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

BEIA DIH	http://www.beia-telecom.ro/bgi/
Digital Innovation SMART eHUB	https://smartehub.ro/
RO Tech Nation DIH	http://rotechnation.eu/

Policy

FundingProgramme

PM-related Stakeholders

Bucarest - Ilfov Regional Development Agency / Agentia pentru Dezvoltare Regionala Bucureşti - Ilfov		Innovation Agency	https://www.adrbi.ro/	
Bucuresti Oncological Institute / Institutul Oncologic Bucuresti		Research	https://www.iob.ro/ro/	
"Cantacuzino" National Institute for Medical-Military Research-Development		Research	https://cantacuzino.mapn.ro/	
Center for Innovation in Medicine	InoMed		https://ino-med.ro/index.html	
INCD in Pathology and Biomedical Sciences VICTOR BABEŞ / INCD în Domeniul Patologiei şi Ştiinţelor Biomedicale VICTOR BABEŞ	IVB	Research	https://www.ivb.ro/	
National Institute for Chemical-Pharmaceutical Res		Research	http://cfarm.ncpri.ro/	
National Institute for Research & Development in Chemistry and Petrochemistry / Institutul Naţional de Cercetare – Dezvoltare pentru Chimie şi Petrochimie	ICECHIM	Research	https://icechim.ro/en/	
National Institute for Research and Development of		Research	https://bioresurse.ro/	
University of Medicine and Pharmacy Carol Davila	UMPCD	Research	https://umfcd.ro/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Committee of the Regions: CoR Interregional Group on Health @ Wellbeing

RO41   Sud-Vest Oltenia

Innovation Performance group (2021)	Emerging innovator -
Population Density (per km² (2019)	67
Total population (2019)	1926860
Proportion older 65y % (2019)	20,47%
Mountain, remote, island?	non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 Transport systems, Industrial and Materials Engineering, Agri-Food, Health and Wellness, ICT and Digitization, Creative Industries

url RIS3 2021-2027   https://www.adroltenia.ro/wp-content/uploads/2020/10/Strategia-Regionala-pentru-Specializare-Inteligenta-SVO-21-27_DRAFT-.pdf

RIS3 priorities 2014-20   Biotechnologies for Health, fundamental and applicative innovative medicine; Innovative Medicine. Activities will include "In vitro/ In vivo" evaluation in projecting general medicines; Development of early diagnosis systems, personalized treatment, monitoring and prognosis; Study of the most widespread causes of mortality and morbidity in the region; Monitoring the spreading of highly pathogenic microorganisms with potential for mass spreading; Developing inovative software and technologies in the medical field; Impact assessment of the environment and occupations on population health; Research and production of equipment, prostheses and software for people with disabilities.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/RO41

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Health in South West Oltenia Cluster / Clusterul ,,Sănătatea în regiunea Sud-Vest Oltenia"		Cluster	https://www.adroltenia.ro/wp-content/uploads/2020/07/Prezentare-Clusterul-Sanatatea-in-regiunea-Sud-Vest-Oltenia.pdf	
South-West Oltenia Regional Development Agency / Agentia pentru Dezvoltare Regionala Sud-Vest Olten		Innovation Agency	https://www.adroltenia.ro	
University of Craiova	UCV	Research	https://www.ucv.ro/en/	
University of Medicine and Pharmacy of Craiova	UMFCV	Research	http://www.umfcv.ro/en/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

SAPHIRe Regional Report

RO42   Vest

coal-intensive region

Innovation Performance group (2021)	Emerging innovator -
Population Density (per km² (2019)	56
Total population (2019)	1777474
Proportion older 65y % (2019)	18,03%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 health and quality of life / e-health / prevention / telemedicine / innovative & personalised treatment methods
(virtual reality, medical robotics, intelligent sensor systems, prevention and remote monitoring or diagnosis) / new innovative medical technologies/treatments, medical engineering research / health tourism

url RIS3 2021-2027   https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_def911e76dc04b4c9b222c45a2bf2392.pdf

RIS3 priorities 2014-20   Information and Communication Technologies. Activities assisting core production and service sectors with the added value and a high degree of successful knowledge by a competitive resources on software development, design and engineering.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/RO42

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

ONCOGEN		Research	https://oncogen.ro/	research centre for Gene and Cellular Therapies in Cancer
ROVEST Cluster		Cluster	http://rovest.eu/index.php/home	
Timișoara Municipal Emergency Clinical Hospital		Hospital	https://www.spitalul-municipal-timisoara.ro/	
University of Medicine in Timișoara		Research	http://www.umft.eu/	
West Regional Development Agency / Agentia pentru Dezvoltare Regionala Vest		Innovation Agency	https://adrvest.ro/contact/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

SE   Sverige / Sweden (National level)

Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_sv_english.pdf

Innovation Performance group (2021)	Innovation leader
Population Density (per km² (2019)	25
Total population (2019)	10230185
Proportion older 65y % (2019)	19,90%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   New bio based materials, products and services.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/SE

PM-related Best Practices
Interregional Collaborations

B1MG - Beyond 1 Million Genomes Pan-European initiative to create genome-based health data infrastructure	https://b1mg-project.eu/
BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
EATRIS - European infrastructure for translational medicinE	https://eatris.eu/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
EOSC4Cancer - European Open Science Cloud for Cancer	https://eosc4cancer.eu/
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/
EU-OPENSCREEN ERIC - European Infrastructure of Open Screening Platforms for Chemical Biology	https://www.eu-openscreen.eu/index.html
ScanBalt BioRegion	https://scanbalt.org/
STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/

Project

Genomic Aggregation Project in Sweden	GAPS	https://ki.se/en/meb/gaps
Genomic Medicine Sweden	GMS	https://genomicmedicine.se/en/
Register Utiliser Tool		https://rut.registerforskning.se/

Biobanks, Cohorts and genomic initiatives

Biobank Sweden	https://biobanksverige.se/
Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-
Swedish Genomes Program	https://www.scilifelab.se/infrastructure/national-projects/swedish-genomes-

Digital Innovation Hubs

Policy

Innovation partnership programme Health and life sciences	https://www.government.se/government-policy/the-governments-innovation-partnership-programmes/innovation-partnership-programme-health-and-life-sciences/
Research and Innovation Bill Research, freedom, future – knowledge and innovation for Sweden (Govt. Bill 2021/21:60).	https://www.government.se/press-releases/2020/12/considerable-boost-for-swedish-research/
Roadmap 2020-2030 - SciLifeLab : Towards technology- and data-driven life science	https://www.scilifelab.se/roadmap-2020-2030
Sweden's national life sciences strategy	https://swedenbio.se/wp-content/uploads/2020/11/swedens-national-life-sciences-strategy.pdf
Swedish National Cancer Plan 2020	http://www.epaac.eu/from_heidi_wiki/Sweden_National_Cancer_Strategy_Summary_English.pdf

FundingProgramme

Challenge-driven Innovation	http://www.vinnova.se/en/Our-acitivities/Cross-borde-co-operation/Challenge-driven-Innovation/Challenge-driven-Innovation
Clinical therapy research	https://www.vr.se/inenglish/researchfunding/fundinggranted/clinicaltherapyresearch.4.3c90cb53157d272286da1af.html
Data integration for PM	https://www.vinnova.se/
Decision support system for health care and social services using artificial intellig	http://vinnova.se/EffektaXML/ImporteradeUtlysningar/2016-01596/Decision%20support%20system%20for%20health%20care%20and%20social%2
Eurostars	https://www.eurostars-eureka.eu/
Innovations for future Health	https://www.vinnova.se/
MedTech for Health	http://medtech4health.se/about/
National programme for protein research, method development and biologics p	https://www.vr.se/english/just-now/news/news-archive/2018-10-11-research-funding-available-for-next-generation-biologics.html
Next-generation Biologics	http://www.vinnova.se/sv/Ansoka-och-rapportera/Utlysningar/Effekta/Utveckling-och-produktion-av-biologiska-lakemedel/
Project grants Medicine and Health, Clinical therapy	https://www.vr.se/
Research Project Grant for research collaboration between China and Sweden	https://www.vr.se/inenglish/researchfunding/applyforgrants/callforproposals/opengrants/researchprojectgrantforresearchcollaborationbetweenchinaandsweden.5.6b078
Swedish Genomes and Biodiversity Programs	https://www.scilifelab.se/news/national-projects-2015/
SweLife	http://swelife.se/en/

SAPHIRe Regional Report

PM-related Stakeholders

Association for Medical Technology in Sweden	Swedish MedTech	Cluster		
ELIXIR Sweden - distributed national bioinformatics infrastructure	NBIS	Infrastructure	https://nbis.se/	
Medical Products Agency	MPA		https://www.lakemedelsverket.se/en	
Ministry of Education / Utbildningsdepartementet		Policy	https://www.regeringen.se/sveriges-regering/utbildningsdepartementet/	national policy education research
Ministry of Social Affairs / Socialdepartementet		Policy	https://www.regeringen.se/sveriges-regering/socialdepartementet/	national policy social affairs
National Board of Health and Welfare			https://www.socialstyrelsen.se/en/	
National Genomics Infrastructure Sweden	NGI	Infrastructure	https://ngisweden.scilifelab.se/	
Public Health Agency of Sweden			https://www.folkhalsomyndigheten.se/the-public-health-agency-of-sweden/	
Science for Life Laboratory SciLifeLab		Infrastructure	https://www.scilifelab.se/	
Swedish eHealth Agency / eHälsomyndigheten			https://www.ehalsomyndigheten.se/other-languages/english/	
Swedish Life Science Industry Organization	SwedenBio	Cluster	https://swedenbio.se/	
Swedish Research Council	VR	Funding	https://www.vr.se/english	
Swedish Research Council for Health, Working Life and Welfare		Funding	https://forte.se/en/	national funding
VINNOVA Sweden's innovation agency		Innovation Agency	https://www.vinnova.se/en	

Memberships/Representations In EU/international projects or initiatives in the area of PM

ICPerMed

SE121   Uppsala län / Uppsala County

Innovation Performance group (2021)	Innovation leader
Population Density (per km² (2019)	46
Total population (2019)	388394
Proportion older 65y % (2019)	18,60%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Life science. Knowledge intensive industries. nuclear power

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/SE121

PM-related Best Practices

Interregional Collaborations

B1MG - Beyond 1 Million Genomes Pan-European initiative to create genome-based health data infrastructure	https://b1mg-project.eu/
OncoTrack - Methods for systematic next generation oncology biomarker development	http://www.oncotrack.eu/
Screen4Care - Accelerating Diagnosis for Rare Disease Patients Through Genetic Newborn Screening and Artificial Intelligence	https://www.screen4care.eu/

Project

Biobanks, Cohorts and genomic initiatives

SAPHIRe Regional Report

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Genomic Medicine Centre Uppsala		Research	https://genomicmedicine.se/gmc-uppsala/	
Region Uppsala / Uppsala län		Policy	https://regionuppsala.se/	regional policy health innovation
STUNS Life science		Cluster	https://lifescience.stuns.se/	
Uppsala Innovation Centre	UIC		https://uic.se/en/	
Uppsala University	UU	Research	https://www.uu.se/en	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR)

SE122   **Södermanlands län**

Innovation Performance group (2021)	Innovation leader
Population Density (per km² (2019)	49
Total population (2019)	299401
Proportion older 65y % (2019)	22,50%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Applied digital services. Biobased industries. Performance processes and materials for robust industrial application
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/SE122

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

16/05/2023   not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Digital Innovation Hubs

Robotdalen	http://www.robotdalen.se/

Policy

FundingProgramme

PM-related Stakeholders

Region Södermanland Sörmland / Sörmlands län		Policy	https://regionsormland.se/	regional policy health innovation

Memberships/Representations In EU/international projects or initiatives in the area of PM

SE123   Östergötlands län / Östergötland County

Innovation Performance group (2021)	Innovation leader
Population Density (per km² (2019)	44
Total population (2019)	467158
Proportion older 65y % (2019)	20,50%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Smart and secure connected products and system. Systems of secure, Internet-integrated, communicating electronics and sensors as well as innovative methods for manufacturing and distribution of such systems/products, New industrial materials. Novel materials. Simulation and visualization. Visualization of complex data, processes and interactions through virtual models, simulation as well as visual, interactive media and games.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/SE123

PM-related Best Practices
Interregional Collaborations

Smartwork - Smart Age-friendly Living and Working Environment	https://www.smartworkproject.eu/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Genomic Medicine Centre Örebro		Research	https://genomicmedicine.se/gmc-orebro/	
Linköping University	LiU	Research	https://liu.se/en	
Region Östergötland / Östergötlands län		Policy		

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN); European Regional and Local Health Authorities (EUREGHA)

SE124   Örebro län / Örebro County

Innovation Performance group (2021)	Innovation leader
Population Density (per km² (2019)	36
Total population (2019)	305643
Proportion older 65y % (2019)	21,30%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Welfare technology / personalised nutrition / new innovative medicines and medical technologies

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/SE124

PM-related Best Practices

Interregional Collaborations

CHERRIES | Constructing Healthcare Environments through Responsible Research Innovation and Entrepreneurship Strategies	https://www.cherries2020.eu/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Genomic Medicine Centre Örebro		Research	https://genomicmedicine.se/gmc-orebro/	
Region Örebro län /		Policy	https://www.regionorebrolan.se/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

SE125   Västmanlands län

Innovation Performance group (2021)	Innovation leader
Population Density (per km² (2019)	54
Total population (2019)	277141
Proportion older 65y % (2019)	21,70%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Welfare and Health.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/SE125

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Region Västmanland / Västmanlands län		Policy	https://regionvastmanland.se/	regional policy health innovation

Memberships/Representations In EU/international projects or initiatives in the area of PM

SE212   Kronobergs län

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	24
Total population (2019)	202263
Proportion older 65y % (2019)	21,20%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Healthy life.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/SE212

PM-related Best Practices

Interregional Collaborations

RBC South - Biobank Sverige South Regional Biobank Center South	https://vardgivare.skane.se/kompetens-utveckling/sakkunniggrupper/regionalt-biobankscentrum-rbc-syd/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Region Kronoberg / Kronobergs län		Policy	https://www.regionkronoberg.se/	regional policy health innovation

Memberships/Representations In EU/international projects or initiatives in the area of PM

SE221　　　　　　　　　　　　　**Blekinge län**

Innovation Performance group (2021)	Innovation leader
Population Density (per km² (2019)	54
Total population (2019)	159056
Proportion older 65y % (2019)	23,80%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Mobile health. Internet of Things
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/SE221

PM-related Best Practices
Interregional Collaborations

RBC South - Biobank Sverige South Regional Biobank Center South	https://vardgivare.skane.se/kompetens-utveckling/sakkunniggrupper/regionalt-biobankscentrum-rbc-syd/

Project

Biobanks, Cohorts and genomic initiatives

SAPHIRe Regional Report

Digital Innovation Hubs

Blue Science Park	https://www.bluesciencepark.se

Policy

FundingProgramme

PM-related Stakeholders

Region Blekinge län		Policy	https://regionblekinge.se/	regional policy health innovation

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

SE224 — Skåne län / Scania County

The conditions for innovation in Sydsverige are good. There are several strong universities, e.g. Lund University, Blekinge Institute of Technology, Malmö University, Kristianstad University and the Swedish University of Agricultural Sciences. There is also a diversified business environment, with several established clusters - life sciences, information and communication technologies (ICT) and food - occupying a key role. The regions' S3 priorities in Life science and health will focus on the development of new life science products, services, e-health, business models and system solutions for preventive health measures. In Technology the focus will be supporting the development of Skåne´s strong tech industry, which have industrial leadership in artificial intelligence, Internet of things, 5G, connectivity, image recognition, big data and gaming, but also a strong Creative media industry, which is essential for digital transformation.

Innovation Performance group (2021)	Innovation leader
Population Density (per km² (2019)	125
Total population (2019)	1389336
Proportion older 65y % (2019)	19,60%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	life sciences and health / whole health chain from health promotion through prevention to diagnosis and treatment / health and quality of life / well-being / healthier lifestyles
url RIS3 2021-2027	https://utveckling.skane.se/siteassets/publikationer_dokument/firs_innovationsstrategi_2020_lowrez.pdf
RIS3 priorities 2014-20	Life science and health. The development of new life science products, services, e-health, business models and system solutions for preventive health measures. ESS, Max IV and the Innovation Ecosystem Science Village Scandinavia. The fostering of knowledge institutions that develop knowledge domains connected to the Big Science facilities ESS and MAX IV, in Nano-materials, Life Sciences and other emerging fields.
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/SE224

PM-related Best Practices

Interregional Collaborations

imSAVAR	https://imsavar.eu/
iNEXT-Discovery Project - Infrastructure for transnational access and discovery in structural biology	https://cordis.europa.eu/project/id/871037
KATY - AI-Empowered Personalised Medicine System to Improve Cancer Treatments	https://katy-project.eu/
RBC South - Biobank Sverige South Regional Biobank Center South	https://vardgivare.skane.se/kompetens-utveckling/sakkunniggrupper/regionalt-biobankscentrum-rbc-syd/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

DigIT Hub Sweden	https://mobileheights.org/european-digital-innovation-hub-skane-edih-skane/

Policy

FundingProgramme

PM-related Stakeholders

Genomic Medicine Centre South		Research	https://genomicmedicine.se/gmc-syd/	genome sequencing infrastructure
Lund University	LU	Research	https://www.lunduniversity.lu.se/	
Medeon Science Park & Incubator	Medeon AB	Cluster	https://www.medeon.se/en-us/	
Medicon Valley		Cluster	https://mediconvalley.greatercph.com/	Danish-Swedish life science cluster

Mobile Heights		Cluster	https://mobileheights.org/	Mobile Heights is a non-profit ICT cluster organisation and networking community promoting innovation and growth in the digital world by connecting business, academia and society. Our focus is the Future Digital World in the areas of: Digital Health
Skåne Region		Policy	https://www.skane.se/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); Committee of the Regions: CoR Interregional Group on Health @ Wellbeing; European Regional and Local Health Authorities (EUREGHA); European Regions Research and Innovation Network (ERRIN)

SE231   Hallands län / Halland County

Innovation Performance group (2021)	Innovation leader
Population Density (per km² (2019)	61
Total population (2019)	336748
Proportion older 65y % (2019)	21,80%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Health technologies.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/SE231

PM-related Best Practices

Interregional Collaborations

RBC South - Biobank Sverige South Regional Biobank Center South	https://vardgivare.skane.se/kompetens-utveckling/sakkunniggrupper/regionalt-biobankscentrum-rbc-syd/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Region Halland / Hallands län		Policy	https://www.regionhalland.se/	regional policy health innovation

Memberships/Representations In EU/international projects or initiatives in the area of PM

SE232   Västra Götalands län / Västra Götaland County

Innovation Performance group (2021)	Innovation leader
Population Density (per km² (2019)	72
Total population (2019)	1734443
Proportion older 65y % (2019)	19,50%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   Life Science. Bio medicine and Health, Cancer, Metabolism, Inflammation, Odontology, Medical technology. Material science. Nano materials

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/SE232

PM-related Best Practices

Interregional Collaborations

Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
SPIDIA for Personalized Medicine - Standardisation of generic Pre-analytical procedures for In-vitro DIAgnostics for Personalized Medicine	https://cordis.europa.eu/project/id/733112

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Genomic Medicine Centre West		Research	https://genomicmedicine.se/gmc-vast/	
Sahlgrenska Science Park		Infrastructure	https://www.sahlgrenskasciencepark.com/	
Västra Götaland region / Västra Götalands län		Policy	https://www.vgregion.se/	regional policy health innovation

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

SE311   Värmlands län / Värmland County

Innovation Performance group (2021)	Strong innovator -
Population Density (per km² (2019)	16
Total population (2019)	282885
Proportion older 65y % (2019)	23,90%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   3. DIGITALISATION OF WELFARE SERVICES. We are developing and testing welfare services in actual environments with users: women, men, girls and boys as co-creators to provide varying types of solutions, many of which are digital.The public sector is an important user and procurer of these processes. This results in better and more effective care, education and other social services and ultimately happier, more competent and healthier citizens.Companies will have access to real development and testing environments where Nordic Medtest and Experio Lab are examples of strong centres for expertise within the area. Add to this a strong ICT cluster which brings together businesses and a university at the leading edges within computer science and service research.For researchers, we offer a multi-disciplinary scientific environment permitting the gathering of unique data in which nursing, school development, IT and service development welcome patients, students, residents and society in the development of an entirely new value creation processes.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/SE311

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Compare - Digital Innovation Hub	https://www.compare.se/

Policy

FundingProgramme

PM-related Stakeholders

Region Värmland / Värmlands län		Policy	https://www.regionvarmland.se/	regional policy health innovation

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

SE312

Dalarnas län / Dalarna County

Innovation Performance group (2021)	Strong innovator -
Population Density (per km² (2019)	10
Total population (2019)	287676
Proportion older 65y % (2019)	24,50%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   In Dalarna, the hospitality industry is already a developed primary industry. But there is great potential here for an expansion into adjacent service industries, and a development of specialised and innovative products within experiences. With the knowledge area for the Innovative Experience Production, areas that have previously worked separately can be collected under an umbrella that creates new forms of partnerships and innovative solutions. The knowledge area consists of a number of sub areas, within which research, education, business development, and innovation work are being conducted. The common industry is the experience and hospitality industry. Meaningful regional players within the area are: the cluster Destination Dalarna, Dala Sports Academy, KKN/MFD and commerce, as well as laboratory and research environments at Dalarna University. The latter is especially developed within the areas of hospitality, commerce, media, games, sports, and health. At the same time, there are many smaller companies that can grow and develop Dalarna, if they work together more and obtain better knowledge. Health and welfare. The aging population, fewer people who wish to work within healthcare, and increased costs. These are some of the challenges that we face, which create a need to work smarter within health and welfare in Dalarna. And that means that we must benefit as much as possible from what we are already good at. Above all, the strength within the knowledge area of Health and Welfare is that regional players are used to working together. This has provided especially good results within caring for and making an effort for the county?s older citizens. The starting point is a broad skill set, combined with core skills within care, sports science, as well as a close collaboration with players within healthcare, social work, and sports.
Dalarna University?s research centre Knowledge Implementation and Patient Safety (KIPS) and the Research Centre for the elderly (ReCall) are important resources. Significant laboratory environments also exist within Lugnet?s Sports Science Institute, which is run in partnership with Dala Sports Academy and, at the Dalarna County Council, LD Hjälpmedel works in outstanding research and innovation environments.
The aging population, fewer people who wish to work within healthcare, and increased costs. These are some of the challenges that we face, which create a need to work smarter within health and welfare in Dalarna. And that means that we must benefit as much as possible from what we are already good at. Above all, the strength within the knowledge area of Health and Welfare is that regional players are used to working together. This has provided

especially good results within caring for and making an effort for the county's older citizens. The starting point is a broad skill set, combined with core skills within care, sports science, as well as a close collaboration with players within healthcare, social work, and sports. Dalarna University's research centre Knowledge Implementation and Patient Safety (KIPS) and the Research Centre for the elderly (ReCall) are important resources. Significant laboratory environments also exist within Lugnet's Sports Science Institute, which is run in partnership with Dala Sports Academy and, at the Dalarna County Council, LD Hjälpmedel works in outstanding research and innovation environments.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/SE312

PM-related Best Practices

Interregional Collaborations

S3 ClusSport	https://s3platform-legacy.jrc.ec.europa.eu/sport

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

16/05/2023

PM-related Stakeholders

Region Dalarna / Dalarnas län		Policy	https://www.regiondalarna.se/	regional policy health innovation

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

SE313   ## Gävleborgs län / Gävleborg County

Innovation Performance group (2021)	Strong innovator -
Population Density (per km² (2019)	16
Total population (2019)	287502
Proportion older 65y % (2019)	24,10%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Bioeconomy. Industrial process IT. Broadband and sensor technology, Geo - localisation and positioning, Internet of things.Material technology
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/SE313

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

SAPHIRe Regional Report

not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Digital Innovation Hubs

Future Position X	https://fpx.se/

Policy

FundingProgramme

PM-related Stakeholders

Region Gävleborg / Gävleborgs län		Policy	https://www.regiongavleborg.se/	regional policy health innovation

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN)

SE321   Västernorrlands län

Innovation Performance group (2021)	Strong innovator -
Population Density (per km² (2019)	11
Total population (2019)	244554
Proportion older 65y % (2019)	24,20%
Mountain, remote, island?	Non mountain, Northern Sparsely Populated Areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 Smart caring - care, safety, security

url RIS3 2021-2027   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/SE321

RIS3 priorities 2014-20   Material technologies.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/SE321

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

SAPHIRe Regional Report

Digital Innovation Hubs

Bron Innovation	https://www.broninnovation.se

Policy

FundingProgramme

PM-related Stakeholders

Region Västernorrland / Västernorrlands län		Policy	https://www.rvn.se/	regional policy health innovation

Memberships/Representations In EU/international projects or initiatives in the area of PM

16/05/2023

SE331   **Västerbottens län**

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	5
Total population (2019)	273192
Proportion older 65y % (2019)	21,20%
Mountain, remote, island?	Non mountain, Northern Sparsely Populated Areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027well-being / mental health / targeted health promotion / e-health / Healthy lifestyles

url RIS3 2021-2027   https://www.regionvasterbotten.se/VLL/Filer/Regional%20utvecklingsstrategi%202020-2030_webb.pdf

RIS3 priorities 2014-20   Life science. Innovations in healthcare.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/SE331

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

SAPHIRe Regional Report

Digital Innovation Hubs

Arctic Game Lab	http://arcticgamelab.com/en/

Policy

FundingProgramme

PM-related Stakeholders

Centre for Rural Medicine in Storuman		Research	https://regionvasterbotten.se/forskning/the-centre-for-rural-medicine-in-storuman - :~:text=Region%20V%C3%A4sterbotten%20invested%20early%20in,health%2C%20skills%20provision%20and%20education.	
Genomic Medicine Centre North		Research	https://genomicmedicine.se/gmc-norr/	
Region Västerbotten / Västerbottens län		Policy	https://regionvasterbotten.se/	regional policy health innovation

Memberships/Representations In EU/international projects or initiatives in the area of PM

SE332   Norrbottens län

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	3
Total population (2019)	249614
Proportion older 65y % (2019)	24,20%
Mountain, remote, island?	Non mountain, Northern Sparsely Populated Areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027 e-health

url RIS3 2021-2027   https://www.norrbotten.se/publika/lg/regio/2020/smart_specialisering_eng_200707_webb.pdf

RIS3 priorities 2014-20   Digital services.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/SE332

PM-related Best Practices
Interregional Collaborations

Project

Biobanks, Cohorts and genomic initiatives

SAPHIRe Regional Report

Digital Innovation Hubs

LTU AI Innovation Hub	https://www.ltu.se/ai

Policy

FundingProgramme

PM-related Stakeholders

Luleå University of Technology	LTU	Regulatory	https://www.ltu.se/?l=en	
Region Norrbotten / Norrbottens län		Policy	https://www.norrbotten.se/	regional policy health innovation

Memberships/Representations In EU/international projects or initiatives in the area of PM

SI   Slovenija / Slovenia (National level)

Slovenia located in central and Southeastern Europe has a population of 2 million. The Slovenian government have recognised health and medicine as key strategic areas for development within the country, in order to lead the way towards economic and social transformation.

Priority areas of focus will include translational medicine and active and healthy aging. Slovenia are involved in a number of personalised health initiatives including ERA-NET on Personalised Medicine, EuroBioBank and ELIXIR. Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_sl_english.pdf   For PM related competences see https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_ecc53d7a7963412890ee93152cadb98c.pdf

Innovation Performance group (2021)	Moderate innovator
Population Density (per km² (2019)	104
Total population (2019)	2080908
Proportion older 65y % (2019)	19,85%
Mountain, remote, island?	Majority of Slovenia is hilly or mountainous

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027	Translational medicine, active and healing ageing smart solutions, resistant bacteria, bio-pharmaceutics, herbal and natural medicine, cancer treatment technologies.
url RIS3 2021-2027	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/SI
RIS3 priorities 2014-20	Research and Innovation activities related to medical applications and quality of life. The activities include new substances and technologies in biomedicine combined with smart healthcare, personalized healthcare for vulnerable population, including high quality food and clean environment.
url RIS3 2014-2020	https://www.gov.si/assets/vladne-sluzbe/SVRK/S4-Slovenska-strategija-pametne-specializacije/Slovenska-strategija-pametne-specializacije.pdf

PM-related Best Practices
Interregional Collaborations

B1MG - Beyond 1 Million Genomes Pan-European initiative to create genome-based health data infrastructure	https://b1mg-project.eu/
BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
BioEndoCar - Biomarkers for diagnosis and prognosis of Endometrial Carcinoma	https://www.era-learn.eu/network-information/networks/transcan-2/third-joint-transnational-call-jtc-2016/biomarkers-for-diagnosis-and-prognosis-of-endometrial-
CAN.HEAL - Building the EU cancer and public health genomics platform	https://canheal.eu/
CoNSENSo - COmmunity Nurse Supporting Elderly iN a changing Society	https://www.alpine-space.org/projects/consenso/en/home

digital Life4CE	https://www.interreg-central.eu/Content.Node/digitalLIFE4CE.html
DIHsP4 - Action plan to shape corridors among DIHs to foster innovation ecosystems and accelerate the deployment of the P4 Medicine Paradigm| Fostering collaboration among Digital Innovation Hubs in the area of P4 medicine	https://cordis.europa.eu/project/id/101070719
EATRIS - European infrastructure for translational medicinE	https://eatris.eu/
ERA CoBioTech	https://www.cobiotech.eu/home
ERA-NET TRANSCAN-2 Aligning national/regional translational cancer research programmes and activities	https://www.era-learn.eu/network-information/networks/transcan-2
ERAPerMed - ERA-Net Cofund in Personalised Medicine	https://erapermed.isciii.es/
EUVECA - European Platform for Vocational Excellence in Health Care	https://ehma.org/euveca-european-platform-for-vocational-excellence-in-health-care/
HealthChain - Boosting value chains in Health at regional and EU level	https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/how-to-participate/org-details/969492400/project/101094676/program/44416173/details
HoCare - Delivery of Innovative solutions for Home Care by strengthening quadruple-helix cooperation in regional innovation chains	https://www.interregeurope.eu/hocare/
IndividualizedPaediatricCure: Cloud-based virtual-patient models for precision paediatric oncology	https://cordis.europa.eu/project/id/826121
ITHACA - InnovaTion in Health And Care for All	https://www.interregeurope.eu/ithaca/
KATY - AI-Empowered Personalised Medicine System to Improve Cancer Treatments	https://katy-project.eu/
Medtech4Europe	https://www.interregeurope.eu/medtech4europe/
S3P4PM - Smart Specialisation Platform for Personalised Medicine	https://s3platform.jrc.ec.europa.eu/personalised-medicine
TEHDAS - Towards European Health Data Space	https://tehdas.eu/
TO-REACH Transferring Innovations in Health Systems	https://to-reach.eu/
UNCAN - a European Initiative to UNderstand CANcer – Drafting a Blueprint for European Cancer Research	https://uncan.eu/
Vanguard Initiative Smart Health Pilot Project	https://www.s3vanguardinitiative.eu/pilots/smart-health
Vanguard Initiative Smart Health Pilot Project Demo Case "Mobile Health (R)evolution"	https://www.s3vanguardinitiative.eu/pilots/smart-health - demonstration_cases
Vanguard Initiative Smart Health Pilot Project Demo Case "Inter-regional platform for new radiotracers development in personalized medicine (TRACE-MED)"	https://www.imago-mol.ro/the-imago-mol-cluster-has-developed-the-initiative-inter-regional-platform-for-new-radiotracers-development-in-personalized-medicine-trace-med/?lang=en
WideHealth - Widening Research on Pervasive and eHealth	https://cordis.europa.eu/project/id/952279

Project

Development of algorithm for determining genetic risk factors on the primary level of health care		http://sicris.si/public/jqm/prj.aspx?lang=eng&opdescr=search&opt=2&subopt=400&code1=cmn&code2=auto&psize=1&hits=1&page=1&count=&search_term=janez%20mlakar&id=17389&slng=&order_by=
National contact point for rare diseases		https://www.redkebolezni.si/en/national-contact-point-for-rare-diseases/

SAPHIRe Regional Report

not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Biobanks, Cohorts and genomic initiatives

Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-
NEUROMUSCULAR TISSUE BANK UNIVERSITY OF LJUBLJANA	http://catalogue.rd-connect.eu/web/neuromuscular-tissue-bank-university-of-
Slovenian Genome Project	http://genom.si/en/index.html

Digital Innovation Hubs

Digital Innovation Hub for Smart Manufacturing	http://www.p-tech.si
Digital Innovation Hub of Eastern Slovenia (DIGITECH SI -East)	http://digitech-si-east.eu
Digital Innovation Hub Slovenia	http://dihslovenia.si/
DIH AGRIFOOD - Digital Innovation Hub for Agriculture and Food production	http://itc-cluster.com/dih-agrifood/
DIH UM	https://www.um.si/en/research/DIH%20UM/Pages/DIH%20UM.aspx
Healthday.si - Digital Innoation Hub in Healthcare and Biotech	http://www.healthday.si/about-us-and-dih
HPC5 - High Performance and Cloud Computing Cross-border Competence Consortium	https://hpc5.eu/eng/
Jožef Stefan Institute	http://tehnologije.ijs.si
Styrian Technology Park, STP	https://stp.si

Policy

Resolution on Research and Innovation Strategy of Slovenia 2011-2020	https://www.gov.si/assets/ministrstva/MIZS/Dokumenti/ZNANOST/Strategije/Resolution-on-Research-and-Innovation-Strategy-of-Slovenia-2011-2020-ENG.pdf
Slovenian SRIPs in details	http://www.svrk.gov.si/en/areas_of_work/slovenian_smart_specialisation_strategy_s4/strategic_research_and_innovation_partnerships_srip_in_detail/

FundingProgramme

PM-related Stakeholders

Agency for Medicinal Products and Medical Devices of the Republic of Slovenia / Javna agencija Republike Slovenije za zdravila in medicinske pripomočke	JAZMP		https://www.jazmp.si/en/	
Center for human molecular genetics and pharmacogenomics - Faculty of Medicine - Maribor	CHMGF	Research	https://www.mf.um.si/mf/instituti/chmgf/CHMGF_EN_Home.html	
ELIXIR Slovenia		Infrastructure	https://elixir-slovenia.org/	
Health Insurance Institute of Slovenia / Zavod za zdravstveno zavarovanje Slovenije	ZZZS		https://www.zzzs.si/en/	

Organisation	Abbreviation	Type	Website	Description
Ljubljana University Incubator / Ljubljanski univerzitetni inkubator	LUI		https://lui.si/english/	
Ministry of Economic Development and Technology / Ministrstvo za gospodarski razvoj in tehnologijo	MGRT	Policy	https://www.gov.si/en/state-authorities/ministries/ministry-of-economic-development-and-technology/	national policy economy
Ministry of Education, Science and Sport / Ministrstvo za izobraževanje, znanost in šport	MIZS	Policy - Research & Innovation	https://www.gov.si/en/state-authorities/ministries/ministry-of-education-science-and-sport/	national policy science & education
Ministry of Health / Ministrstvo za zdravje	MZ	Policy - Healthcare	https://www.gov.si/en/state-authorities/ministries/ministry-of-health/	national policy health
National Institute for Public Health / Nacionalni inštitut za javno zdravje	NIJZ	Policy - Healthcare	https://www.nijz.si/en	
Public Agency of the Republic of Slovenia / Javna agencija Republike Slovenije za spodbujanje	SPIRIT Slovenija	Funding	https://www.spiritslovenia.si/	national funding & execution economy
Slovenian Innovation Hub			https://www.sis-egiz.eu/en/	
Slovenian Node of Infrastructure for Systems Biology Europe	ISBE	Infrastructure	http://isbe.si/	
Slovenian Quality Assurance Agency for Higher Education / Nacionalna agencija Republike Slovenije za kakovos	NAKVIS		https://www.nakvis.si/?lang=en	
Slovenian Research Agency / Javna agencija za raziskovalno dejavnost Republike	ARRS	Funding	http://www.arrs.si/en/index.asp	
Support to Strategic Research and Innovation Partnerships Health - Medicine	SRIP		https://www.sripzdravje-medicina.si/en/	
University Medical Centre Ljubljana			https://www.kclj.si/	
University of Ljubljana, Biotechnical Faculty	UL	Research	http://www.bf.uni-lj.si/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN); ICPerMed; Other : Center for Mendelian Genomics NGS Center for medical applications

SK   Slovensko / Slovakia (National level)

Country Health Profile 2021 see https://health.ec.europa.eu/system/files/2021-12/2021_chp_sk_english.pdf

Innovation Performance group (2021)	Emerging innovator
Population Density (per km² (2019)	112
Total population (2019)	5450421
Proportion older 65y % (2019)	16,04%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Public health and medical technology. Health
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/SK

PM-related Best Practices

Interregional Collaborations

ECRIN - European Clinical Research Infrastructure Network	https://ecrin.org/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
ERA-NET NEURON Cofund2 togther for brain research	https://www.neuron-eranet.eu/
ERA-NET TRANSCAN-2 Aligning national/regional translational cancer research programmes and activities	https://www.era-learn.eu/network-information/networks/transcan-2
ERA-NET TRANSCAN-3	https://www.era-learn.eu/network-information/networks/transcan-3
EuroNanoMed III (2016-2021) the new ERA-Net Cofund Action on Nanomedicine	https://euronanomed.net/
STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
UNCAN - a European Initiative to UNderstand CANcer – Drafting a Blueprint for European Cancer Research	https://uncan.eu/

Project

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

Policy

FundingProgramme

PM-related Stakeholders

Biomedical Research Center of the Slovak Academy of Sciences		Research	http://www.biomedcentrum.sav.sk/?lang=en	
Ministry of Education, Science, Research & Sport / Ministerstvo školstva, vedy, výskumu a športu Slov	MESRS SR	Policy - Research & Innovation	https://www.minedu.sk/science-and-research/	
Ministry of Health / Ministerstva Zdravotníctva		Policy - Healthcare	https://www.health.gov.sk/Titulka	
Public Health Authority of the Slovak Republic / Úrad verejného zdravotníctva Slovenskej republiky	UVZSR	Policy - Healthcare	https://www.uvzsr.sk/en/index.php/regional-public-health-authorities-in-the-slovak-republic	
Slovak Research & Development Agency / Agentúra na podporu výskumu a vývoja	APVV SRDA	Funding	https://www.apvv.sk/?lang=en	
State Institute for Drug Control	SIDC / ŠÚKL		https://www.sukl.sk/hlavna-stranka/english-version?page_id=256	

Memberships/Representations In EU/international projects or initiatives in the area of PM

16/05/2023

SK04   ## *Východné Slovensko / Eastern Slovakia*

The Eastern Slovakia Region is located in the east of Slovakia and consists of two NUTS III self-governing regions: the Košice Region and the Prešov Region, it has a population of 1,623,043 (Eurostat, 2019). The are seven RIS3 R&D priorities whichh include: Material research and nanotechnologies, ICT and Biomedicine. There is an innovation strategy for the Slovak Republic for the 2014-2020 years, which defines strategic goals to improve ability to commercialise and adapt innovations and technologies, and support the development of Slovakia to become a successful industrialised country.

Innovation Performance group (2021)	Emerging innovator +
Population Density (per km² (2019)	104
Total population (2019)	1625436
Proportion older 65y % (2019)	14,35%
Mountain, remote, island?	> 50 % of surface in mountain areas

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20

url RIS3 2014-2020

PM-related Best Practices
Interregional Collaborations

Project

16/05/2023

Biobanks, Cohorts and genomic initiatives

Digital Innovation Hubs

DIH TECHNICOM (organisation unit of the University Science Park TECHNICOM)	https://dihtechnicom.tuke.sk/
Robotics Hub Technical University of Kosice	http://roboticshub.sk/en/

Policy

FundingProgramme

PM-related Stakeholders

Memberships/Representations In EU/international projects or initiatives in the area of PM

UK — United Kingdom (National level)

Country Health Profile 2019 see https://ec.europa.eu/health/sites/health/files/state/docs/2019_chp_uk_english.pdf

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	274
Total population (2019)	66647112
Proportion older 65y % (2019)	18,41%
Mountain, remote, island?	Non-mountain Island

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20

url RIS3 2014-2020

PM-related Best Practices

Interregional Collaborations

BBMRI-ERIC - European research infrastructure for biobanking	https://www.bbmri-eric.eu/national-nodes/
EMBL - European Molecular Biology Laboratory	https://www.embl.org/
ERA CoBioTech	https://www.cobiotech.eu/home
ERA-NET NEURON Cofund2 togther for brain research	https://www.neuron-eranet.eu/
GenOMICC - Genetics of Mortality in Critical Care	https://genomicc.org/
imSAVAR	https://imsavar.eu/
JAseHN - Joint Action to support the eHealth Network (2015 -2018)	https://webgate.ec.europa.eu/chafea_pdb/health/projects/677102/summary
SPIDIA for Personalized Medicine - Standardisation of generic Pre-analytical procedures for In-vitro DIAgnostics for Personalized Medicine	https://cordis.europa.eu/project/id/733112
STARS - Strengthening Training of Academia in Regulatory Science	https://www.csa-stars.eu/
TEHDAS - Towards European Health Data Space	https://tehdas.eu/

SAPHIRe Regional Report

not exhaustive; based on input given EUsurvey https://ec.europa.eu/eusurvey/runner/SAPHIRe and desktop research; we are still working to update these, if you would like your regional information to be represented please contact us saphire@vlaanderen.be

Project

DATA-CAN - UK's Health Data Research Hub for Cancer		https://www.data-can.org.uk/
Deciphering Developmental Disorders	DDD	https://www.ddduk.org/intro.html
Genomics Education Program for healthcare professionals		https://www.hee.nhs.uk/our-work/genomics-education
Implementing polygenic scores for cardiovascular disease into NHS Health Checks		https://www.phgfoundation.org/report/prs-implementation-and-delivery
UK Stratified Medicine Programme		https://www.cancerresearchuk.org/funding-for-researchers/how-we-deliver-research/our-research-partnerships/stratified-medicine-programme

Biobanks, Cohorts and genomic initiatives

100,000 Genomes Project - Genomics England	https://www.genomicsengland.co.uk/initiatives/100000-genomes-project
Member European '1+ Million Genomes' Initiative	https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-
Newborn Genomes Programme - Genomics England	https://www.genomicsengland.co.uk/initiatives/newborns
UK Biobank	https://www.ukbiobank.ac.uk/
UK Clinical Research Collaboration Directory and Coordination Centre	https://biobankinguk.org/

Digital Innovation Hubs

Policy

Citizen generated data and health Predictive prevention of disease	https://www.phgfoundation.org/media/92/download/cgd-predictive-prevention-of-disease.pdf?v=1&inline=1
Code of Conduct for Data-driven Health and Care Technology	https://www.gov.uk/government/publications/code-of-conduct-for-data-driven-health-and-care-technology
Generation Genome (Annual Report of Chief Medical Officer 2016)	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/631043/CMO_annual_report_generation_genome.pdf
Genome UK 2022-2025 implementation plan	https://www.gov.uk/government/publications/genome-uk-2022-to-2025-implementation-plan-for-england/genome-uk-2022-to-2025-implementation-plan-for-england - implementation-actions-2022-to-2025
Genomics England IP policy	https://www.genomicsengland.co.uk/?wpdmdl=10361
Green Paper "Advancing our health: prevention in the 2020s"	https://www.gov.uk/government/consultations/advancing-our-health-prevention-in-the-2020s/advancing-our-health-prevention-in-the-2020s-consultation-document
Life Sciences Industrial Strategy	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/650447/LifeSciencesIndustrialStrategy_acc2.pdf
Microbiome Strategic Roadmap	https://ktn-uk.org/wp-content/uploads/2021/02/Microbiome_Strategic_Roadmap_FINAL.pdf
National Genomic Healthcare Strategy – Genome UK: the future of healthcare	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/920378/Genome_UK_-_the_future_of_healthcare.pdf
NHS Long Term Plan	https://www.longtermplan.nhs.uk/publication/nhs-long-term-plan/
NICE (National Institute for Health and Care Excellence) strategy 2021 to 2026	https://static.nice.org.uk/NICE%20strategy%202021%20to%202026%20-%20Dynamic,%20Collaborative,%20Excellent.pdf
Our Healthy Future	https://www.phgfoundation.org/research/my-healthy-future

SAPHIRe Regional Report

Proposed Patient and Public Involvement Strategy 2020-25	https://www.gov.uk/government/consultations/mhra-patient-involvement-strategy-consultation/proposed-patient-and-public-involvement-strategy-2020-25
The national cancer strategy	https://www.gov.uk/government/publications/the-national-cancer-strategy

FundingProgramme

Molecular Pathology Nodes	https://www.mrc.ac.uk/research/initiatives/stratified-medicine/molecular-pathology/
Stratified Medicine Initiative	https://mrc.ukri.org/research/initiatives/stratified-medicine/

PM-related Stakeholders

BioIndustry Association	BIA	Cluster	https://www.bioindustry.org/	
Cancer Research UK		Funding	https://www.cancerresearchuk.org/	
Department for Business, Energy & Industrial Strategy	BEIS	Policy	https://www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy	national policy economy
Department for Education		Policy	https://www.gov.uk/government/organisations/department-for-education	national policy education
Department for Health & Social Care	DHSC	Policy - Healthcare	https://www.gov.uk/government/organisations/department-of-health-and-social-care	national policy health
ELIXIR-UK		Infrastructure	https://elixiruknode.org/	
Genomics England Clinical Interpretation Partnership	GeCIP	Research	https://www.genomicsengland.co.uk/about-gecip/	
Health Data Research UK	HDR UK		https://www.hdruk.ac.uk/	
Lifebit			https://lifebit.ai/	
Medicines And Healthcare Products Regulatory Agency	MHRA		https://www.gov.uk/government/organisations/medicines-and-healthcare-products-regulatory-agency	
National Institute for Health and Care Excellence	NICE		https://www.nice.org.uk/	
National Institute for Health and Care Research	NIHR	Research	https://www.nihr.ac.uk/	national execution & funding R&D
NHS genomic medicine centres (GMCs)			https://www.genomicsengland.co.uk/about-genomics-england/the-100000-genomes-project/genomic-medicine-centres/ - :~:text=13%20NHS%20Genomic%20Medicine%20Centres,NHS%20GMCs%20by%20their%20clinicians.	
NHS Genomic Medicine Service		Research	https://www.england.nhs.uk/genomics/nhs-genomic-med-service/	
North Thames NHS Genomic Medicine Centre		Research	http://www.ntgmc.nhs.uk/	

UK Research & Innovation	UKRI	Funding	https://www.ukri.org/	national execution & funding R&D; Economy & Innovation
uMotif		Corporate - Medtech	https://www.umotif.com/	
Wellcome Genome Campus		Infrastructure	https://www.wellcomegenomecampus.org/	genome and biodata research
Wessex NHS Genomic Medicine Centre		Research	https://www.uhs.nhs.uk/Research/100,000genomesproject/WessexNHSGenomicMedicineCentre.aspx	
West of England NHS Genomic Medicine Centre		Research	http://www.wegmc.org/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

UKL   Wales

coal-intensive region

Innovation Performance group (2021)	Strong innovator
Population Density (per km² (2019)	151
Total population (2019)	3136383
Proportion older 65y % (2019)	21,05%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20   e-health. Health informatics. Wound healing. Neuroscience. Medical devices. Drug discovery.

url RIS3 2014-2020   https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/UKL

PM-related Best Practices

Interregional Collaborations

TO-REACH Transferring Innovations in Health Systems	https://to-reach.eu/

Project

Genomics Partnership Wales		https://genomicspartnership.wales/
Identification of MUTYH, the first recessive colorectal cancer gene, improves management of familial bowel cancer		https://impact.ref.ac.uk/casestudies/CaseStudy.aspx?Id=3416

Biobanks, Cohorts and genomic initiatives

Wales Cancer Bank / Cancer Tissue Biobank	https://www.walescancerbank.com/index.htm

SAPHIRe Regional Report

Digital Innovation Hubs

Digital Manufacturing Innovation Hub Wales (DMIW)	http://www.dmiw.co.uk

Policy

"A Healthier Wales" long term plan for health and social care	https://gov.wales/healthier-wales-long-term-plan-health-and-social-care
The quality statement for cancer : five year plan to improve the quality of cancer services and outcomes	https://gov.wales/sites/default/files/pdf-versions/2021/3/2/1617110306/quality-statement-cancer.pdf
Velindre University NHS Trust Strategic Plan 2032	https://velindre.nhs.wales/news/latest-news/our-future-our-strategy-2032/vunhst-strategic-plan-2032/
Welsh Genomics for Precision Medicine Strategy	https://gov.wales/sites/default/files/publications/2019-04/genomics-for-precision-medicine-strategy.pdf

FundingProgramme

PM-related Stakeholders

All Wales Medical Genomics Service	AWMGS		https://medicalgenomicswales.co.uk/	
Centre of Excellence for Precision Medicine - Cardiff university		Research	https://www.cardiff.ac.uk/news/view/1763946-cardiff-recognised-as-centre-of-excellence-for-precision-medicine	
Health and Care Research Wales	WG – HCRW	Funding	https://healthandcareresearchwales.org/	regional funding research health
Health Technology Wales	HTW		https://www.healthtechnology.wales/	regional Health Technology Assessment
Life Sciences Hub Wales		Cluster	https://lshubwales.com/	
MediWales		Cluster	https://www.mediwales.com/	
Public Health Wales		Policy - Healthcare	http://www.wales.nhs.uk/	
Velindre Cancer Centre			https://velindre.nhs.wales/velindrecc/	
Wales Cancer Network			https://lshubwales.com/wales-cancer-network	NHS Wales Health Collaborative
Wales Infants' and ChildreN's Genome Service	WINGS		https://medicalgenomicswales.co.uk/index.php/health-professional-information/wings	
Welsh Government		Policy	https://gov.wales/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

Council of European Bioregions (CEBR); European Regions Research and Innovation Network (ERRIN); European Regional and Local Health Authorities (EUREGHA)

SAPHIRe Regional Report

UKM   Scotland

Innovation Performance group (2021)	Strong innovator +
Population Density (per km² (2019)	70
Total population (2019)	5454238
Proportion older 65y % (2019)	18,98%
Mountain, remote, island?	Mix of mountain & non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Life sciences.
url RIS3 2014-2020	https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/UKM

PM-related Best Practices

Interregional Collaborations

CONNECTINGHEALTH - CONNECTing the dots withIN diGItal HEALTH Innovation Ecosystems	https://cordis.europa.eu/project/id/101070756
KATY - AI-Empowered Personalised Medicine System to Improve Cancer Treatments	https://katy-project.eu/
PANCAIM - Pancreatic cancer AI for genomics and personalized Medicine	https://pancaim.eu/
TITTAN - (Network for Technology,Innovation and Translation in Ageing	https://www.interregeurope.eu/tittan/

Project

Scottish Genomes Partnership		https://www.scottishgenomespartnership.org/
SHARE, the Scottish Health Research Register & Biobank		https://www.registerforshare.org/

Biobanks, Cohorts and genomic initiatives

Alan Foulis Collection – The Exeter Archival Diabetes Biobank	https://foulis.vub.ac.be/index.php

SAPHIRe Regional Report

Digital Innovation Hubs

Digital Health & Care Institute	http://www.dhi-scotland.com
EPCC	https://www.epcc.ed.ac.uk

Policy

Digital Health and Social Care Strategy 2017-22	https://www.gov.scot/publications/realising-scotlands-full-potential-digital-world-digital-strategy-scotland/

FundingProgramme

PM-related Stakeholders

Digital Health and Care Innovation Centre			https://www.dhi-scotland.com/	
Healthy Ageing Innovation Cluster	HAIC	Cluster	https://www.dhi-scotland.com/healthy-ageing-innovation-cluster/	
National Services Scotland			https://www.nss.nhs.scot/	
Scottish Health Technologies Group	SHTG		http://www.healthcareimprovementscotland.org/our_work/technologies_and_medicines/shtg.aspx	regional Health Technology Assessment
University of Glasgow - Glasgow Precision Oncology Laboratory	GPOL	Research	https://www.gpol.org/	
University of St Andrews	UStAn	Research	https://www.st-andrews.ac.uk/	

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN); European Regional and Local Health Authorities (EUREGHA)

UKN   Northern Ireland

Northern Ireland has a population of 1.8 million. In Northern Ireland personalised medicine is an area of substantial and rapidly growing focus which benefits from the core strengths that underpin the region's health and social care and research and development infrastructure.

The Queen's University hosts the Precision Medicine Centre (PMC) of Excellence, which will provide the necessary infrastructure to meet the increasing demands in the changing field of healthcare and industry in terms of technologies and expertise.

The Northern Ireland Centre for Stratified Medicine, which undertakes cutting edge stratified medicine research is a collaborative project between the University of Ulster's Biomedical Sciences Research Institute, C-TRIC (the Clinical Translational Research and Innovation Centre) and the Western Health and Social Care Trust.

The Centre for Personalised Medicine and Clinical Decision Making (INTERREG VA Programme) is also located at Ulster University. This cross-border collaborative project, led by Stratified Medicine Ulster University includes 13 partner organisations.   For PM-related competences see https://0598738e-ec53-4997-bc4a-9d8ca06c55ba.filesusr.com/ugd/a02509_785828208257424aa9bf3ee7081ec7bb.pdf

Innovation Performance group (2021)	Strong innovator -
Population Density (per km² (2019)	139
Total population (2019)	1875957
Proportion older 65y % (2019)	16,33%
Mountain, remote, island?	Non-mountain

Regional Strategy for Research and Innovation for Smart Specialisation (RIS3)

RIS3 priorities 2021-2027

url RIS3 2021-2027

RIS3 priorities 2014-20	Life and Health Science
url RIS3 2014-2020	https://www.economy-ni.gov.uk/sites/default/files/publications/deti/framework-for-smart-specialisation.pdf

PM-related Best Practices
Interregional Collaborations

CHITIN - Cross-border Healthcare Intervention Trials in Ireland Network	https://www.seupb.eu/sites/default/files/styles/INTERREGVA/CHITIN_CaseStudy1.PDF
SAPHIRe - Securing the Adoption of Personalised Health in Regions	https://www.saphire-eu.eu/
TO-REACH Transferring Innovations in Health Systems	https://to-reach.eu/

Project

Centre for Personalised Medicine - Clinical Decision Making and Patient Safety	CPM	www.ulster.ac.uk/cpm
Identifying patients and families at risk of inherited high cholesterol		https://impact.ref.ac.uk/casestudies/CaseStudy.aspx?Id=38354
Precision Medicine Centre of Excellence	PMC	http://www.qub.ac.uk/research-centres/PMC/
Re-assessment of Cancer risk in Barrett's oesophagus		https://impact.ref.ac.uk/casestudies/CaseStudy.aspx?Id=38355
Riboflavin, MTHFR genotype and blood pressure		https://impact.ref.ac.uk/casestudies/CaseStudy.aspx?Id=1020
Stratified Medicine course		https://www.ulster.ac.uk/faculties/life-and-health-sciences/biomedical-sciences/subjects/stratified-medicine

Biobanks, Cohorts and genomic initiatives

EUROCAT: European surveillance of congenital anomalies	https://www.orpha.net/consor/cgi-
Northern Ireland Biobank	https://www.qub.ac.uk/research-centres/PMC/TheNorthernIrelandBiobank/

Digital Innovation Hubs

Policy

eHealth and Care Strategy for Northern Ireland	https://www.health-ni.gov.uk/sites/default/files/publications/dhssps/interactive-ehealth-strategy.pdf
Precision Medicine in Northern Ireland	http://matrixni.org/wp-content/uploads/2015/07/Precision-Medicine-in-Northern-Ireland.pdf
Research for Better Health & Social Care A Strategy for Health & Social Care Research and Development in Northern Ireland (2016-2025)	https://www.health-ni.gov.uk/sites/default/files/publications/dhssps/research-and-development-strategy-2016-25_1.pdf

FundingProgramme

PM-related Stakeholders

Centre for Personalised Medicine	CPM	Research	https://www.ulster.ac.uk/research/topic/biomedical-sciences/research/centre-for-personalised-medicine	
Clinical Diagnostics		Research	https://www.qub.ac.uk/research-centres/PMC/ClinicalDiagnostics/	

Department of Education	DoE	Policy	https://www.education-ni.gov.uk/	regional policy education
Department of Health	DoH	Policy - Healthcare	https://www.health-ni.gov.uk/	regional policy health
Health and Social Care Board	HSCB		http://www.hscboard.hscni.net/	regional execution & funding Health
Northern Ireland Centre for Stratified Medicine		Research	https://www.ulster.ac.uk/research/topic/biomedical-sciences/research/northern-ireland-centre-for-stratified-medicine	
Northern Ireland Genomic Medicine Centre		Research	https://research.hscni.net/northern-ireland-genomics-medicine-centre	
Precision Medicine Centre - Queen's University Belfast	PMC	Research	https://www.qub.ac.uk/research-centres/PMC/	
Public Health Agency	HSC PHA		https://www.publichealth.hscni.net/	regional execution & funding Health
Research & Development in Northern Ireland	HSC PHA R&D		https://research.hscni.net/	regional execution & funding R&D

Memberships/Representations In EU/international projects or initiatives in the area of PM

European Regions Research and Innovation Network (ERRIN); European Alliance for Personalised Medicine (EAPM); European Regional and Local Health Authorities (EUREGHA)