DUURZAAMHEID IN EUROPESE ONDERZOEKS- EN INNOVATIEPROJECTEN: PROJECTEN, MIDDELEN, SAMENWERKINGSVERBANDEN EN STAKEHOLDERS

EVENEMENT *DUURZAAM ONDERNEMEN EN INNOVEREN*
EWI – ECOOM
25 OKTOBER 2024

Loresel ABAINZA
Dirk DEROM
Walter YSEBAERT



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ecoom

1. INLEIDING – OVERZICHT

- O&I-projecten in de Europese kaderprogramma's:
  - KP8 Horizon 2020 (2014-2020)
  - KP9 Horizon Europe (2021-2027)
- Projecten met een SDG-label
- Welke vormen van samenwerkingen (partnerships)? Focus op quadruple helix – samenwerkingen
- Welke categorieën van stakeholders?
- Databank: CORDIS
- Waarom focus op SDG's?
  - Assumptie: SDG's gerichte projecten > duurzaamheid
  - Cf. ook missie van KP's, vooral H Europe
  - Gebruik gemaakt van labelling Cordis
- Categorieën van stakeholders > vier categorieën > labelling Cordis
  - Quadruple helix: assumptie > samenwerking met stakeholders > maatschappelijke impact stijgt > grotere link met duurzaamheid
- Ongoing research!

BEPALINGEN MBT. MISSIE

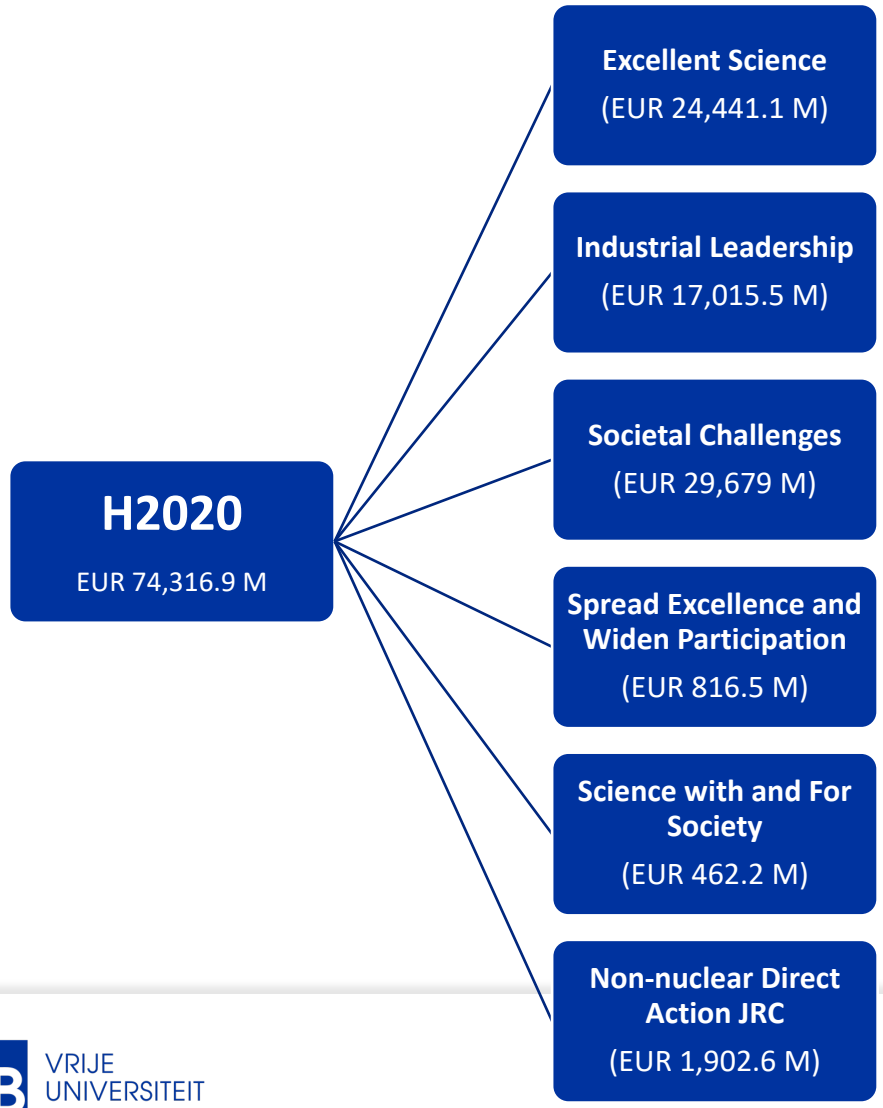
H2020 (Decision - 2013/743)

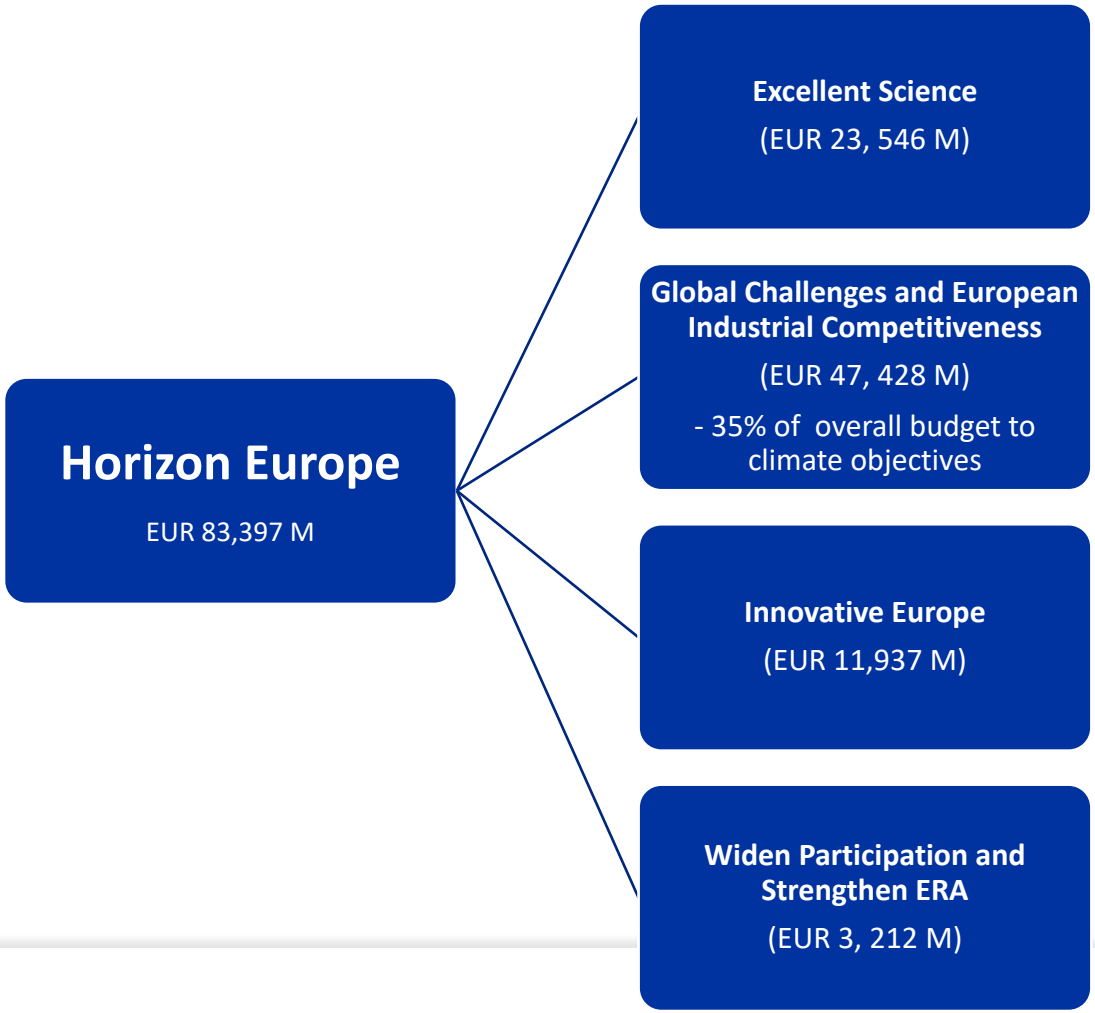
- reinforce, widen and extend the excellence of the Union's science base
- stimulate private sector research and development and innovation investment
- respond to key societal challenges by supporting excellent research and innovation activities
- maintain international cooperation
- effective cooperation between science and society

Horizon Europe (Decision - 2021/764)

- strengthen excellent basic and frontier research
- stimulate R&I activities in SMEs
- support the implementation of Union policy priorities – **SDG**, Paris Agreement
- increase collaboration links; strengthen international cooperation
- strengthen the gender dimension across the Specific Programme

STRUCTUUR - BUDGET

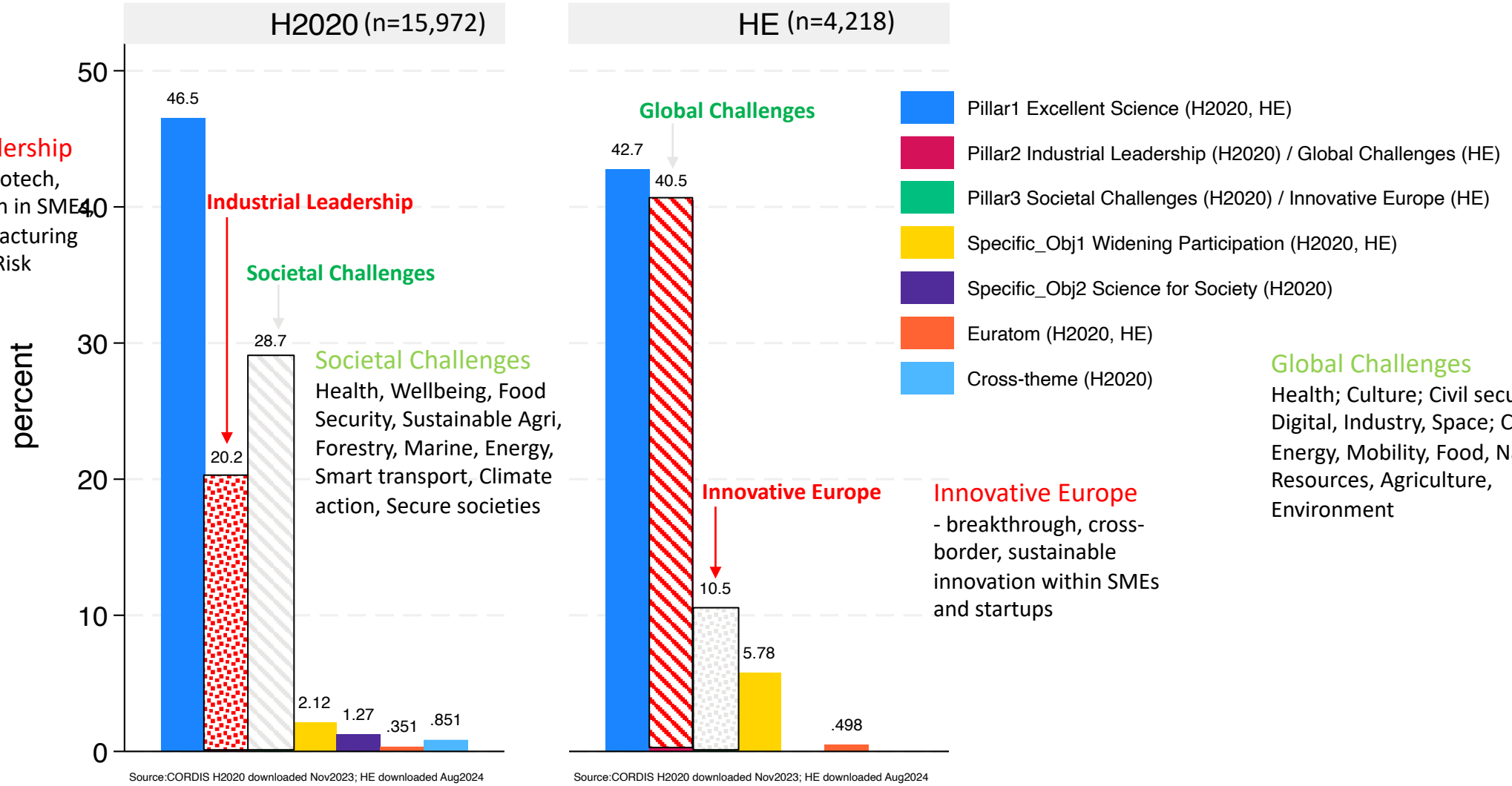




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H2020, Horizon Europe Projects Linked to SDGs, by priorities

Industrial Leadership
ICT, Nanotech, Biotech, Space, Innovation in SME's, Advanced manufacturing and processing, Risk finance



Societal Challenges
Health, Wellbeing, Food Security, Sustainable Agri, Forestry, Marine, Energy, Smart transport, Climate action, Secure societies

Innovative Europe
- breakthrough, cross-border, sustainable innovation within SMEs and startups

Global Challenges
Health; Culture; Civil security; Digital, Industry, Space; Climate, Energy, Mobility, Food, Natural Resources, Agriculture, Environment

Source:CORDIS H2020 downloaded Nov2023; HE downloaded Aug2024

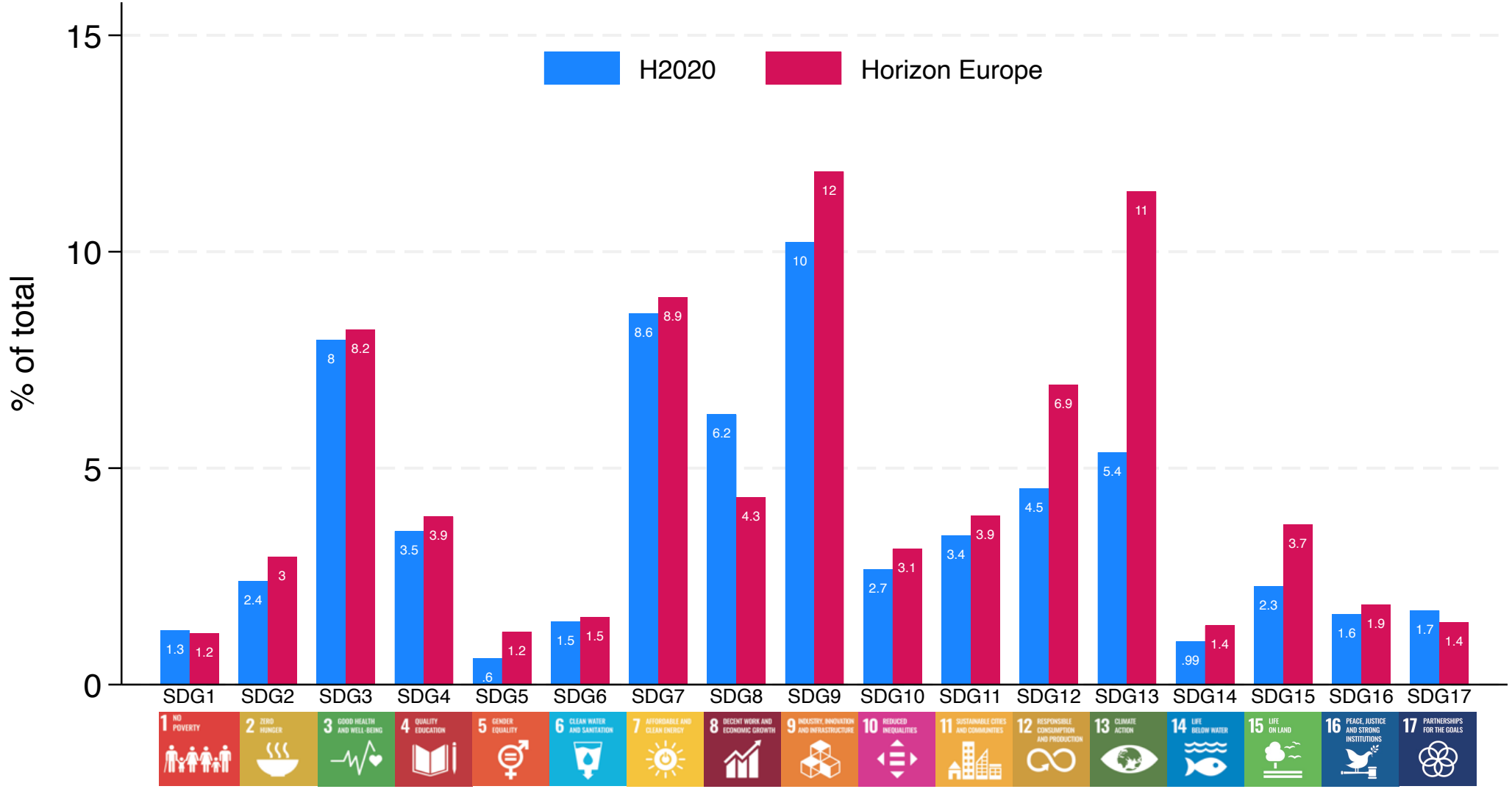
Source:CORDIS H2020 downloaded Nov2023; HE downloaded Aug2024

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Overview Framework Programmes Linked to SDGs				
Variables	H2020 (2014-2020)		Horizon Europe (2021-2023)	
	n	%	n	%
Total number of projects	35,386	100.00	8,505	100.00
Projects linked to SDGs	15,972	45.14	4,218	49.59
Total number of organizations	177,835	100.00	57,416	100.00
Unique organizations participating in SDG-linked Projects	27,304	65.74	13,784	72.81
EU15	19,778	72.44	9,703	70.39
EU13	3,076	11.27	1,918	13.91
ASC	2,356	8.63	1,221	8.86
OTH	2,094	7.67	942	6.88
Unique organizations in Belgium participating in SDG-linked Projects	1,231	4.51	705	5.11
Brussels	575	46.71	373	52.91
Flanders	505	41.02	260	36.88
Walloon	151	12.27	72	10.21
Stakeholders in SDG Projects	27,304	100.00	13,784	100.00
Academia_Research	4,179	15.31	2,997	21.74
Industry	17,229	63.10	7,433	53.92
Government	2,229	8.16	1,293	9.38
Civil Society	3,667	13.43	2,061	14.95

2. SDG-PROJECTEN

Share of H2020 and Horizon Europe Projects linked to SDGs

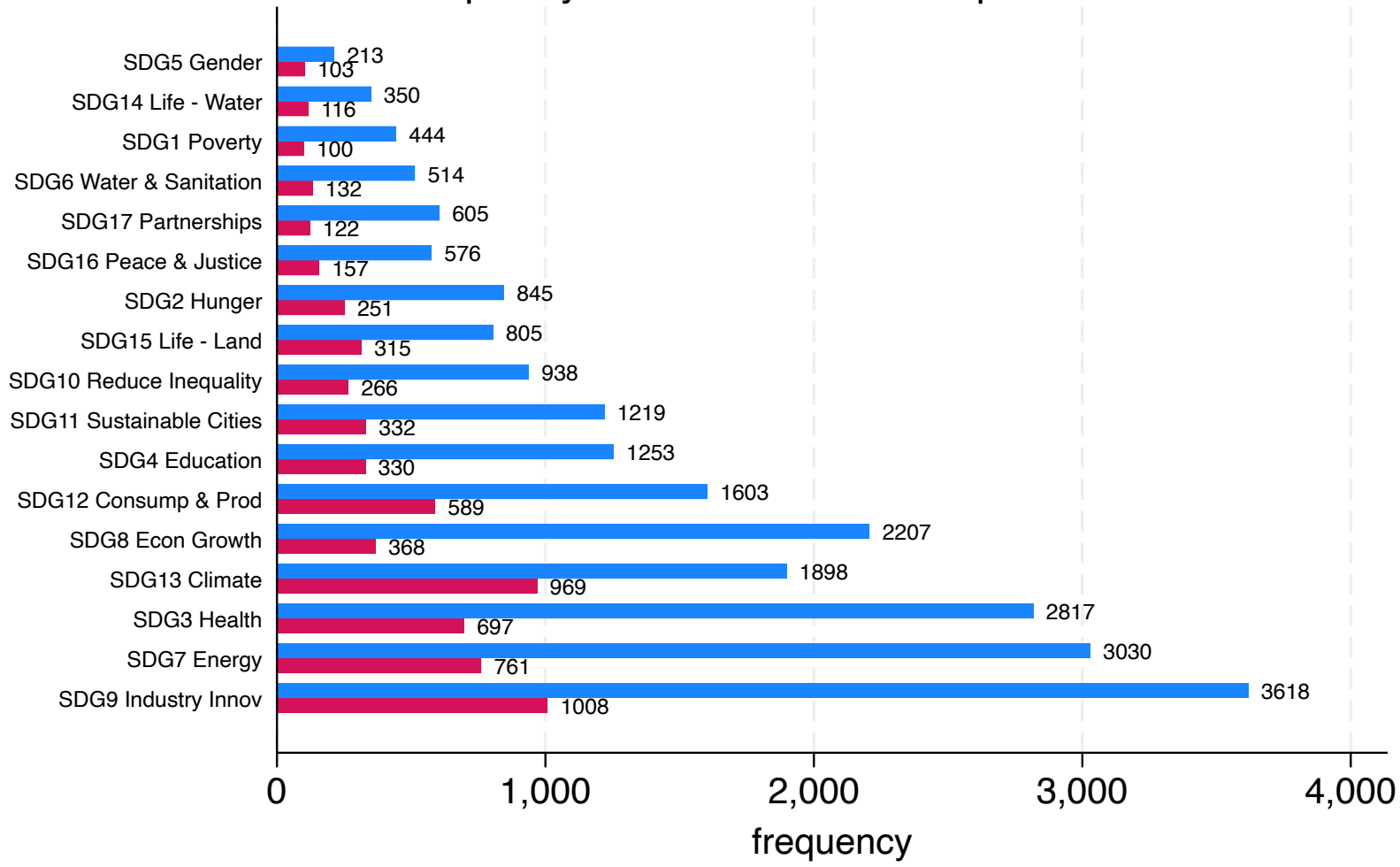


Source: CORDIS H2020 downloaded Nov2023; Horizon Europe downloaded Aug2024

BRUSSEL

Mapping of SDGs in H2020 and HE Projects

frequency sorted based on multiple occurrences



H2020

HE

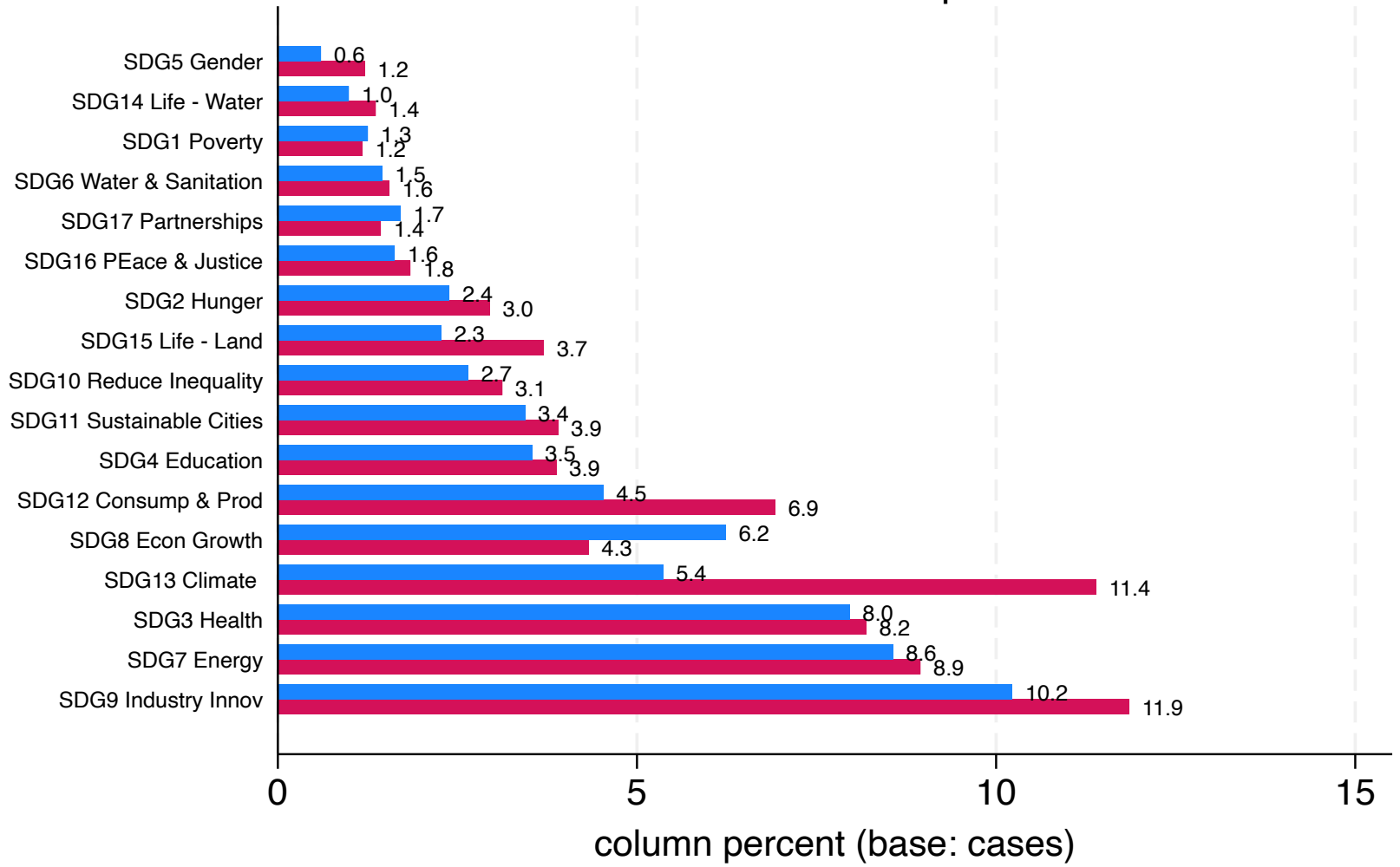
Total number of projects in H2020: 35,386
Total number of projects linked to SDGs: 15,972

Total number of projects in HE: 8,505
Total number of projects linked to SDGs: 4,218

BRUSSEL

Mapping of SDGs in H2020 and HE Projects

share sorted based on multiple occurrences



H2020

HE

Total number of projects in H2020: 35,386
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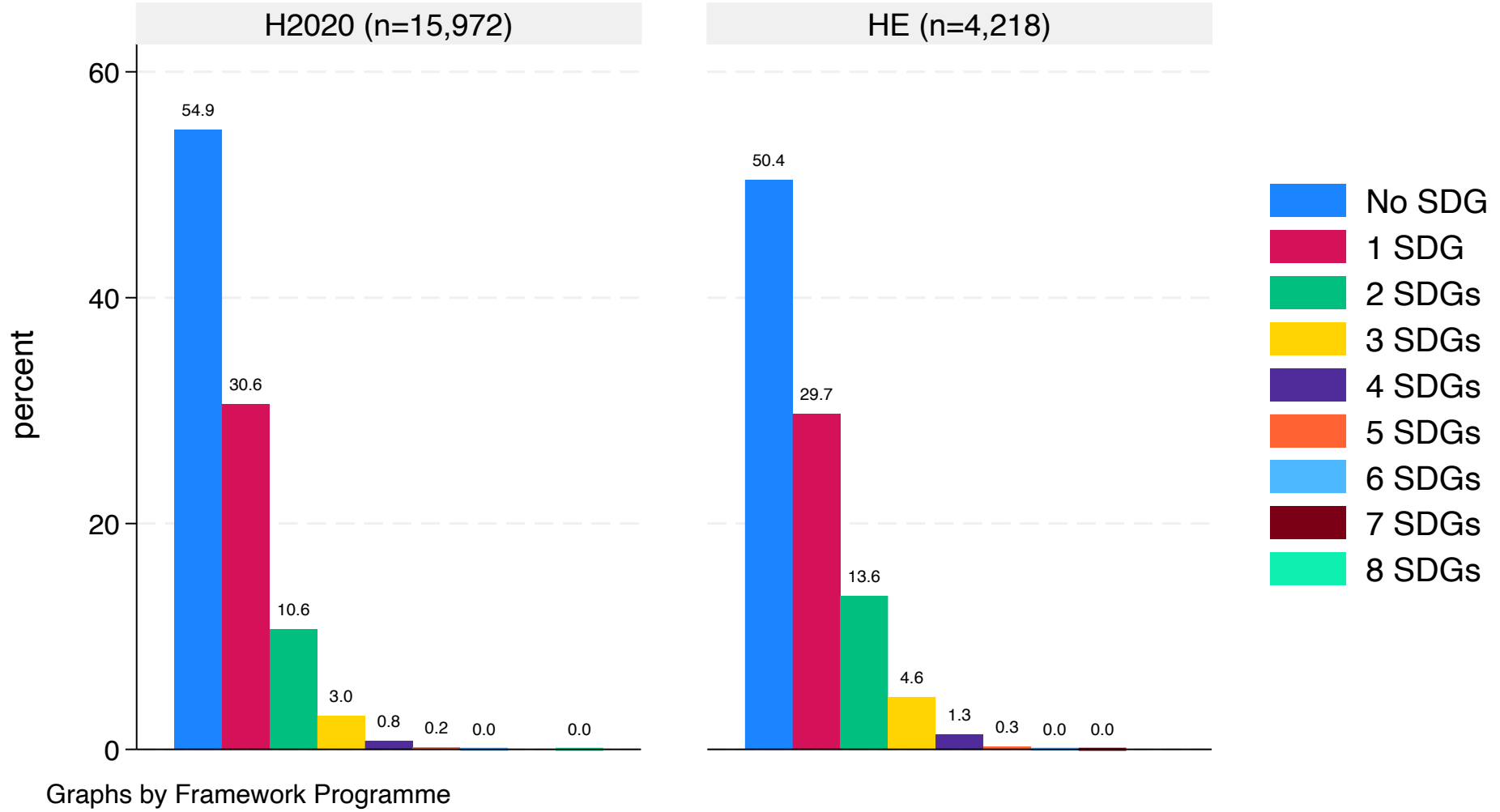
PROJECTS LINKED TO SEVERAL SDGS

Number of SDGs per project	Framework Programme		
	H2020	HE	Total
0	19,414	4,287	23,701
	54.86	50.41	54.00
1	10,818	2,526	13,344
	30.57	29.70	30.40
2	3,761	1,157	4,918
	10.63	13.60	11.21
3	1,055	395	1,450
	2.98	4.64	3.30
4	272	114	386
	0.77	1.34	0.88
5	58	22	80
	0.16	0.26	0.18
6	6	3	9
	0.02	0.04	0.02
7	0	1	1
	0.00	0.01	0.00
8	2	0	2
	0.01	0.00	0.00
Total	35,386	8,505	43,891
	100.00	100.00	100.00

First row has *frequencies* and second row has *column percentages*

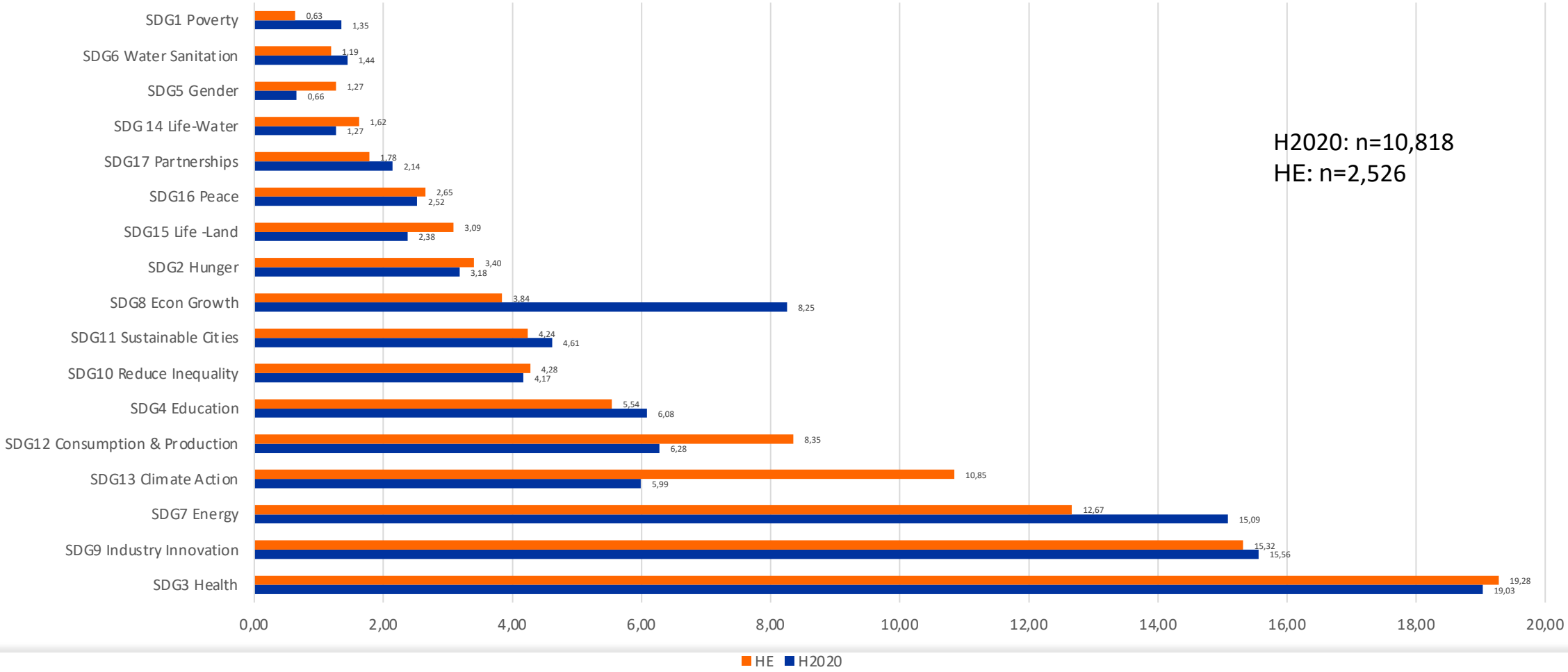
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Share of Projects Linked to Several SDGs



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Specific SDGs of Projects linked to one SDG (n=13,344)

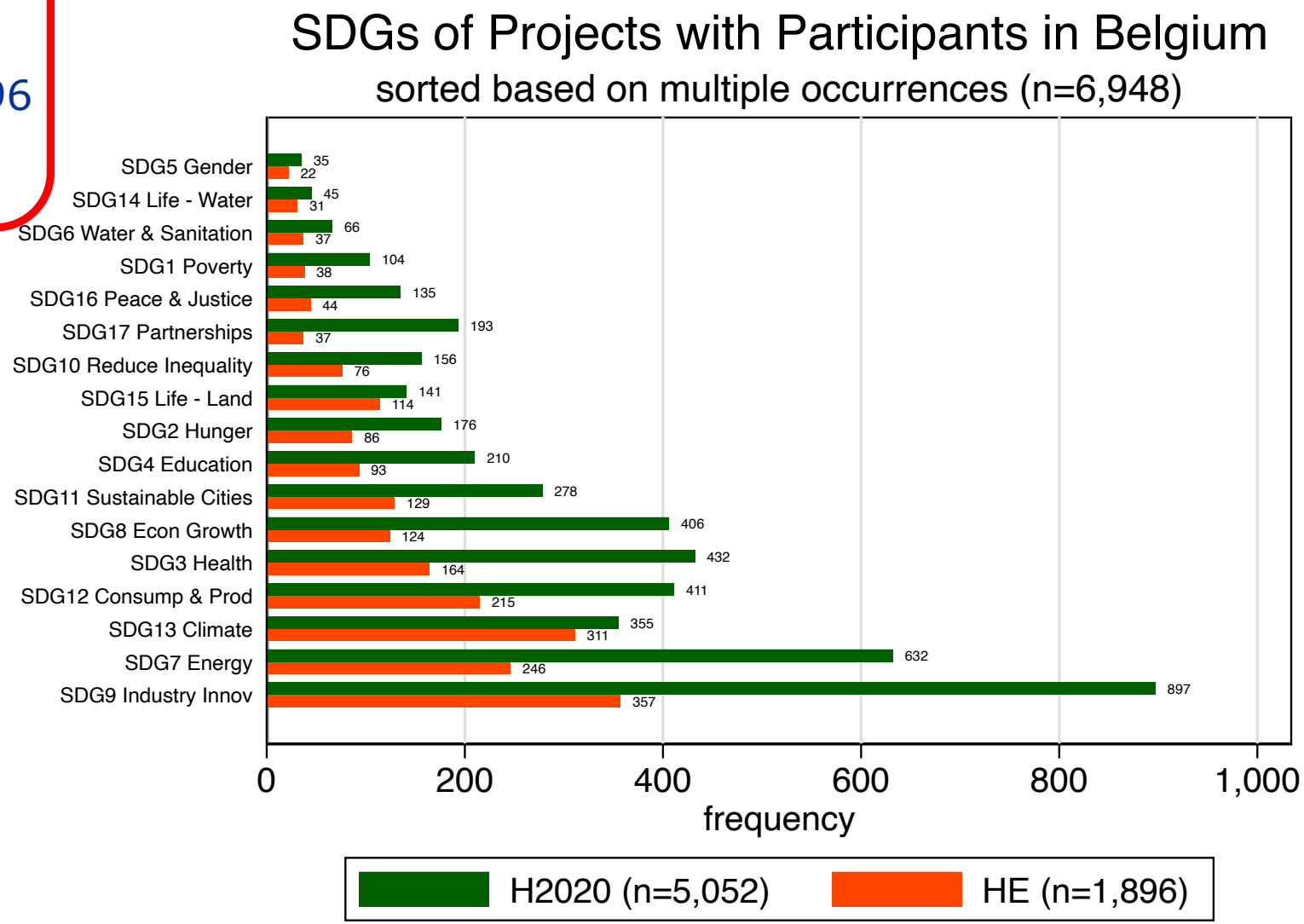


H2020: n=10,818
HE: n=2,526

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H2020: n = 5052
- no SDG: 2028
- SDG 3024

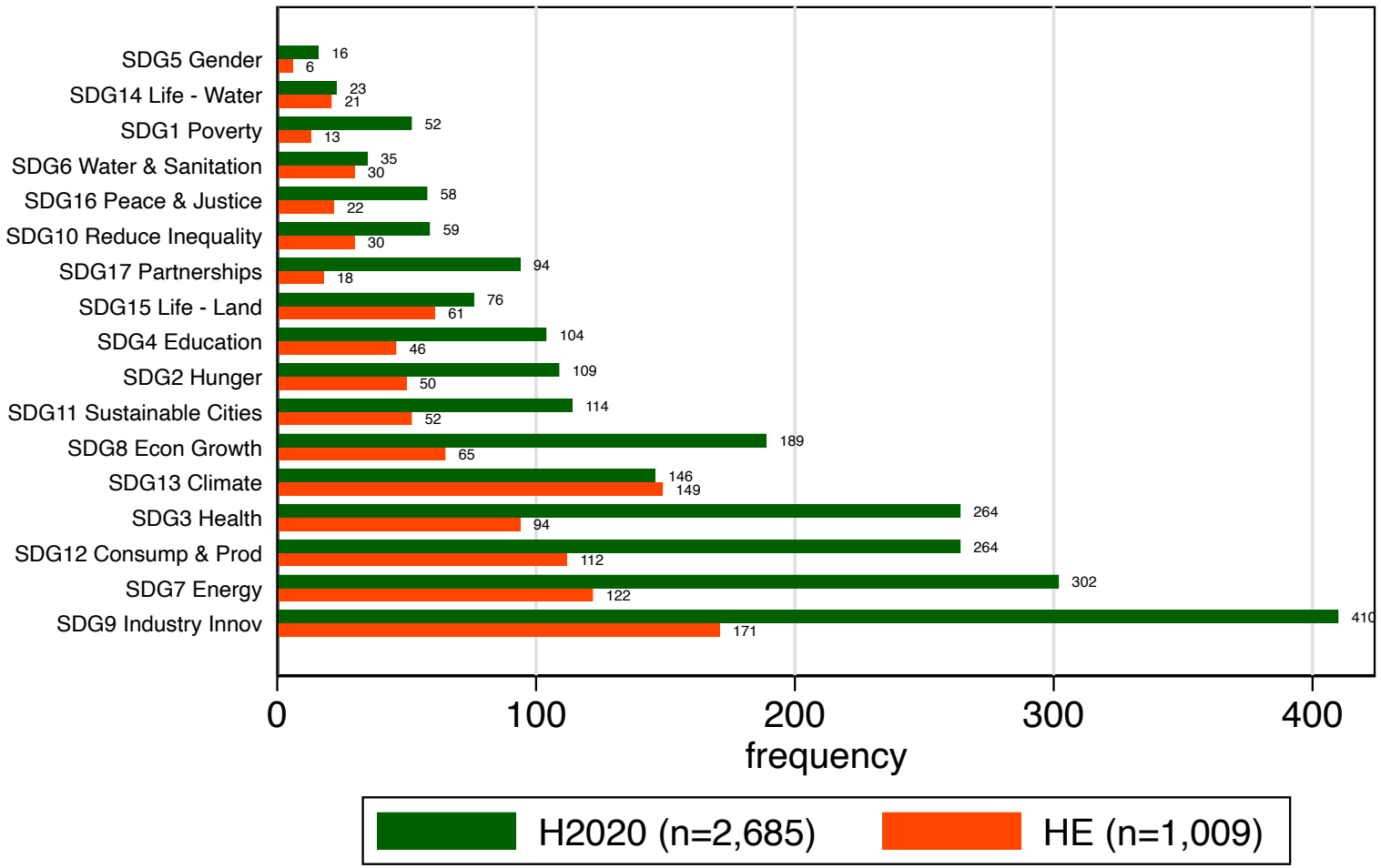
H Europe: n = 1896
- no SDG 645
- SDG 1251



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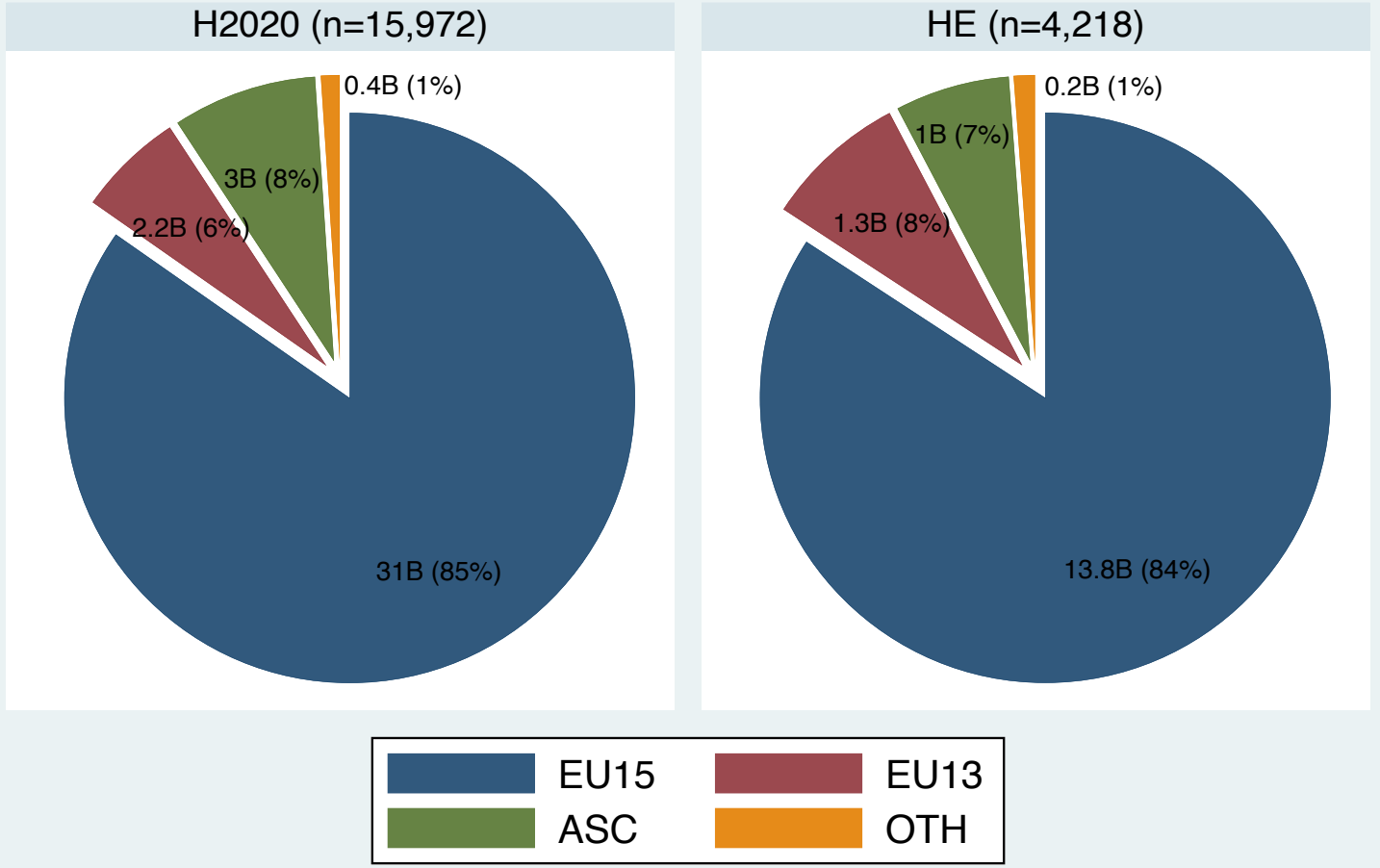
SDGs of Projects with Participants in Flanders

sorted based on multiple occurrences (n=3,694)



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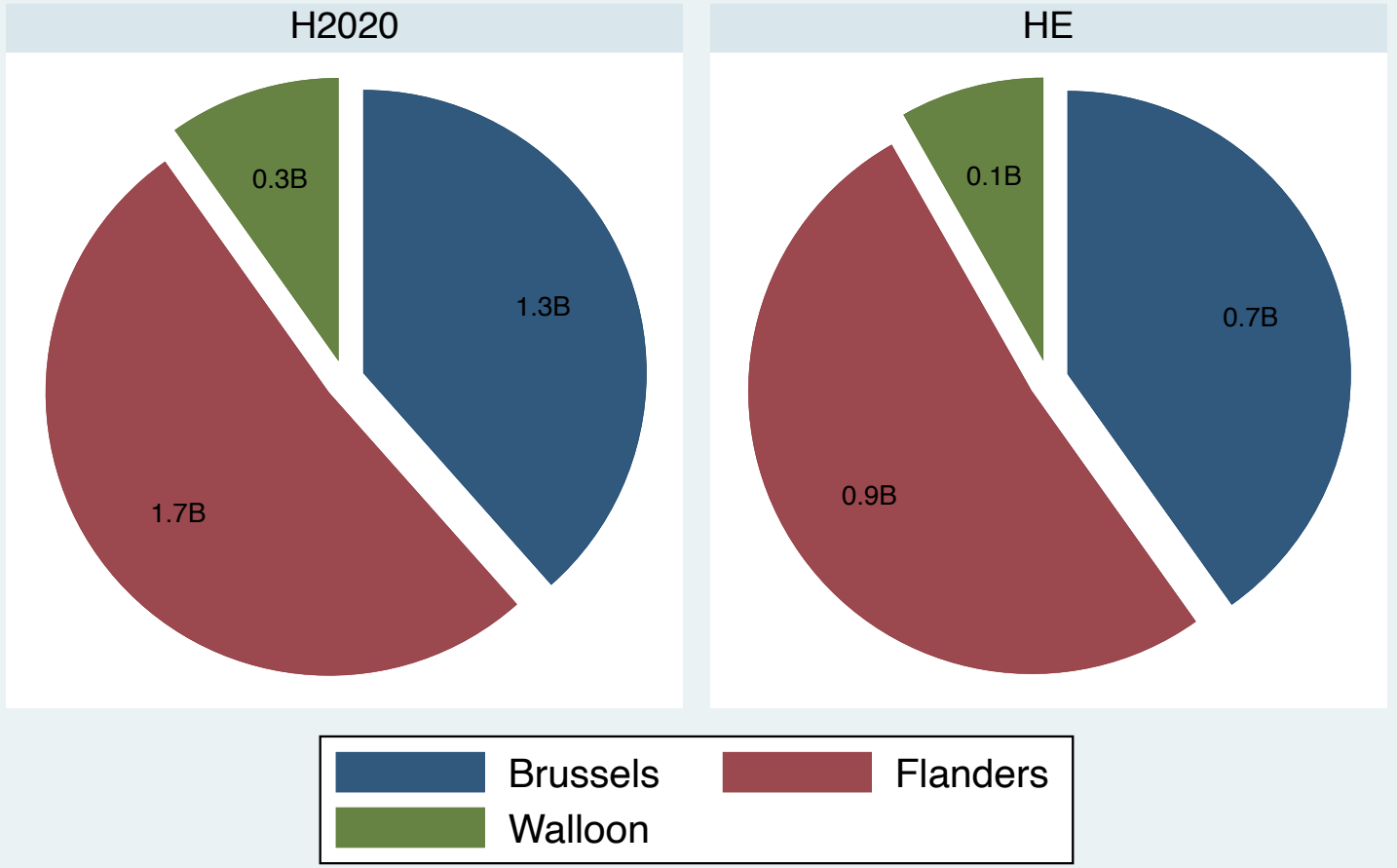
Net European Commision Contribution for SDG-linked Projects by geographic grouping, in billion euros



Graphs by Framework Programme

Net European Commision Contribution in Belgium

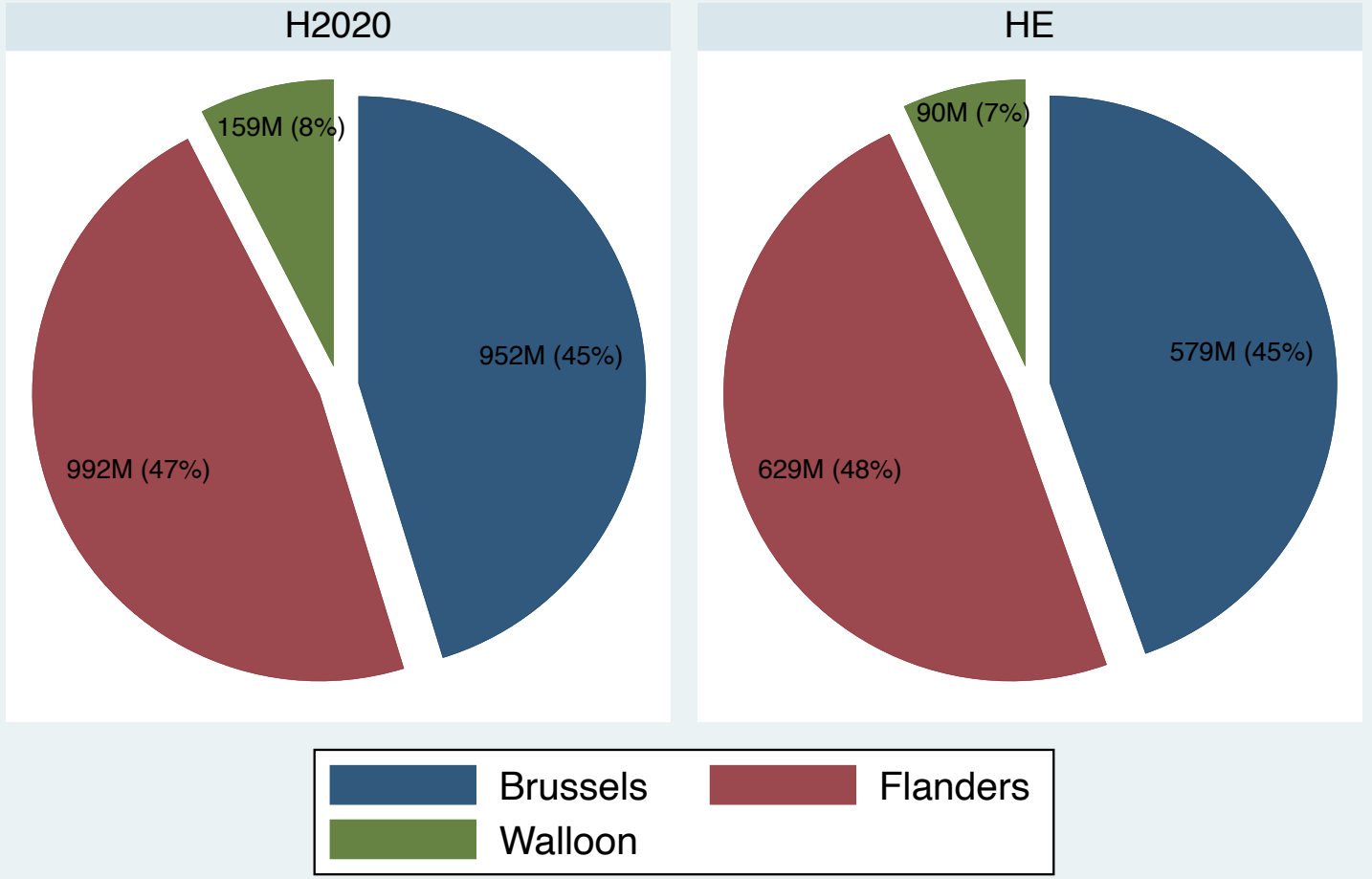
by region, in billion euros



Graphs by Framework Programme

Net European Commission Contribution for SDG-linked Projects in Belgium

by region, in million euros



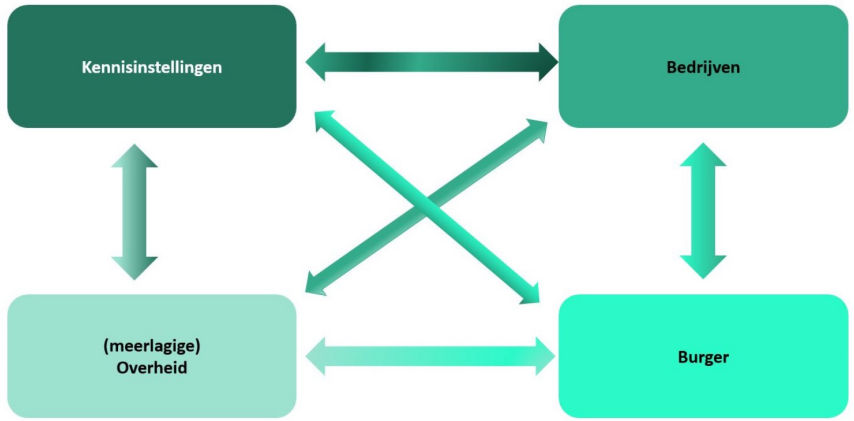
Graphs by Framework Programme

3. STAKEHOLDERS – SAMENWERKINGEN

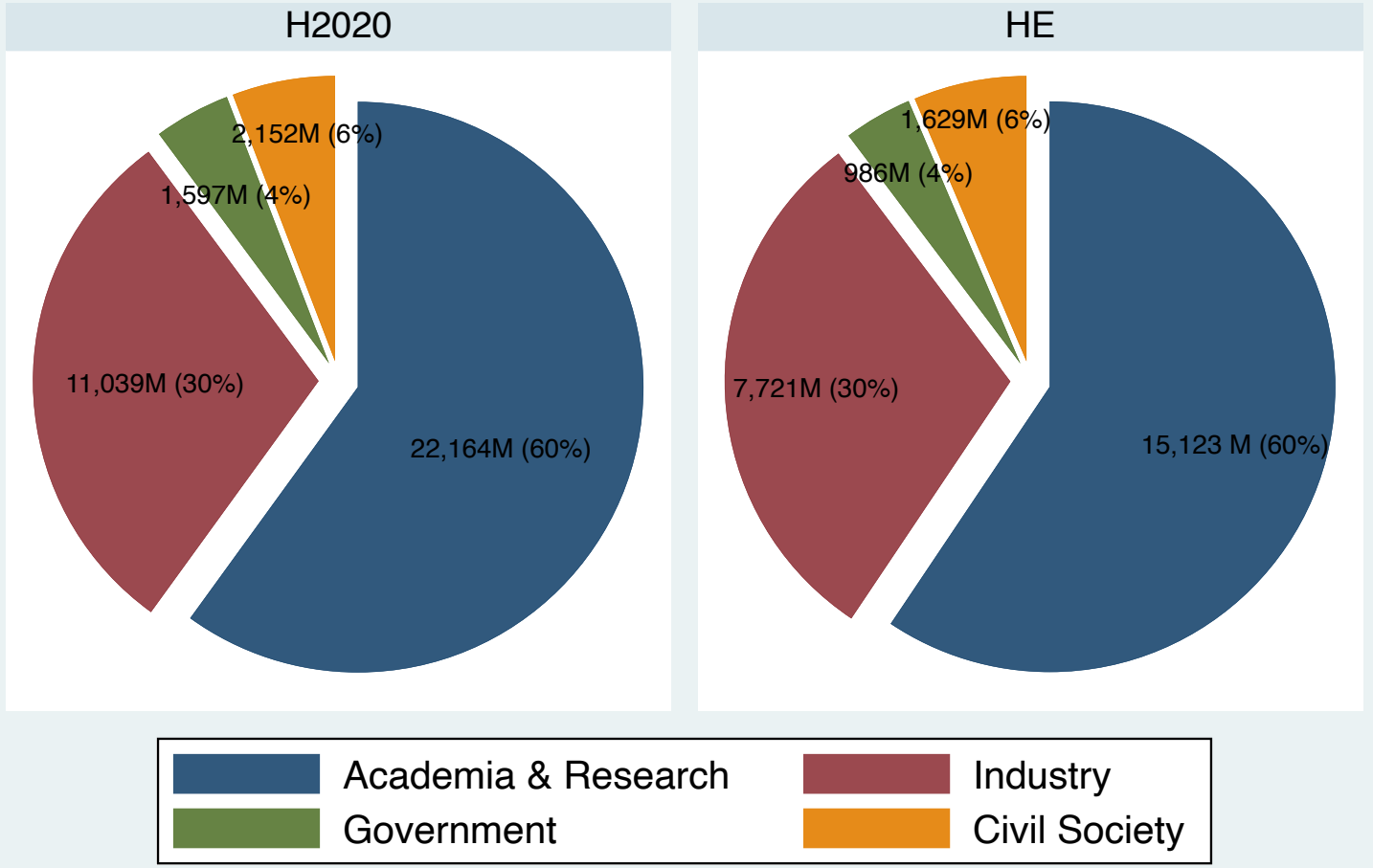
- Welke soorten actoren, stakeholders?
- Welke vormen van samenwerking?

- Academia & research
- Industry
- Government
- Civil Society

- Single helix
- Double helix
- Triple helix
- Quadruple helix

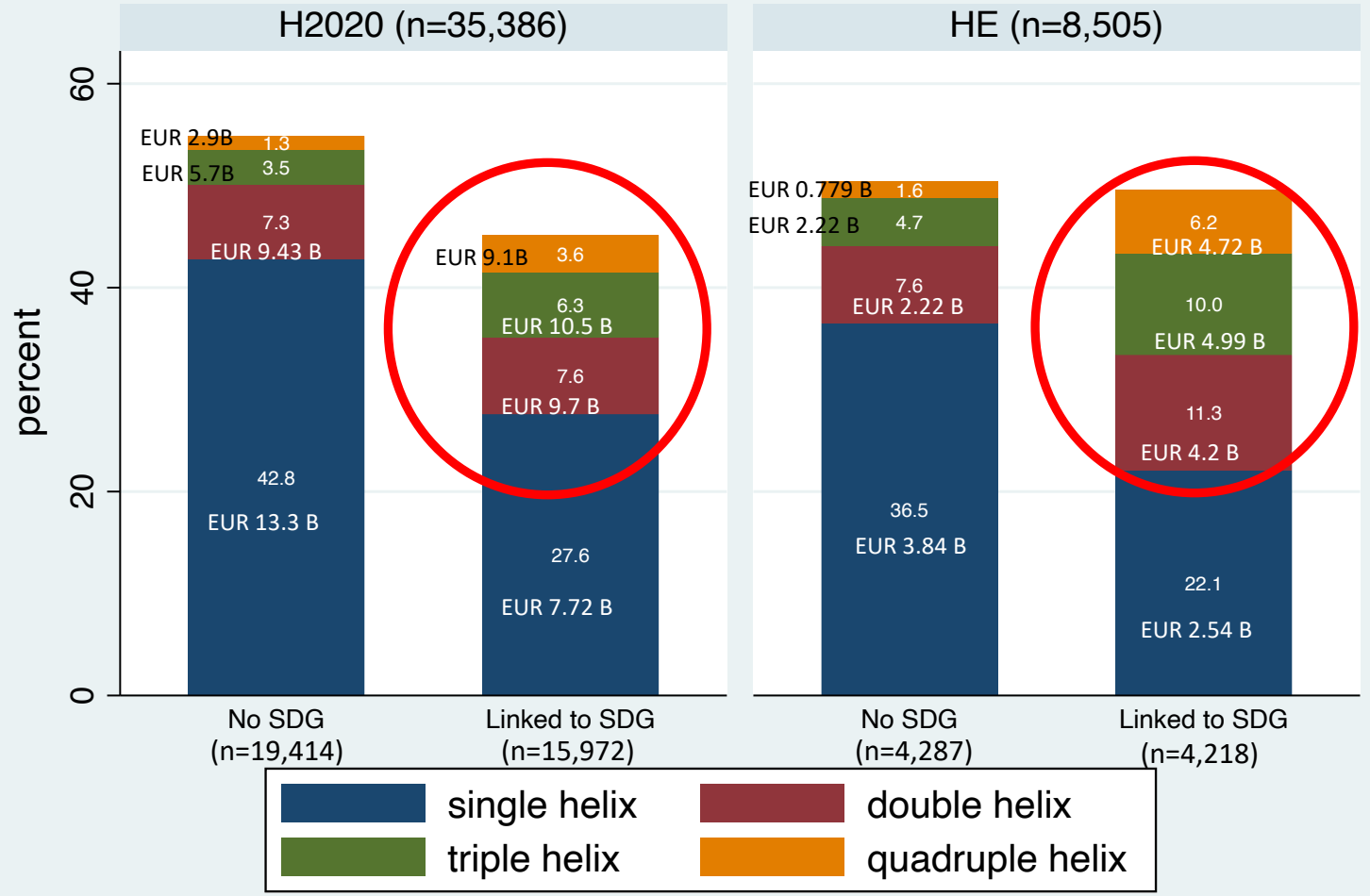


Net EC Contribution Received by Stakeholders in SDG Projects
in million euros



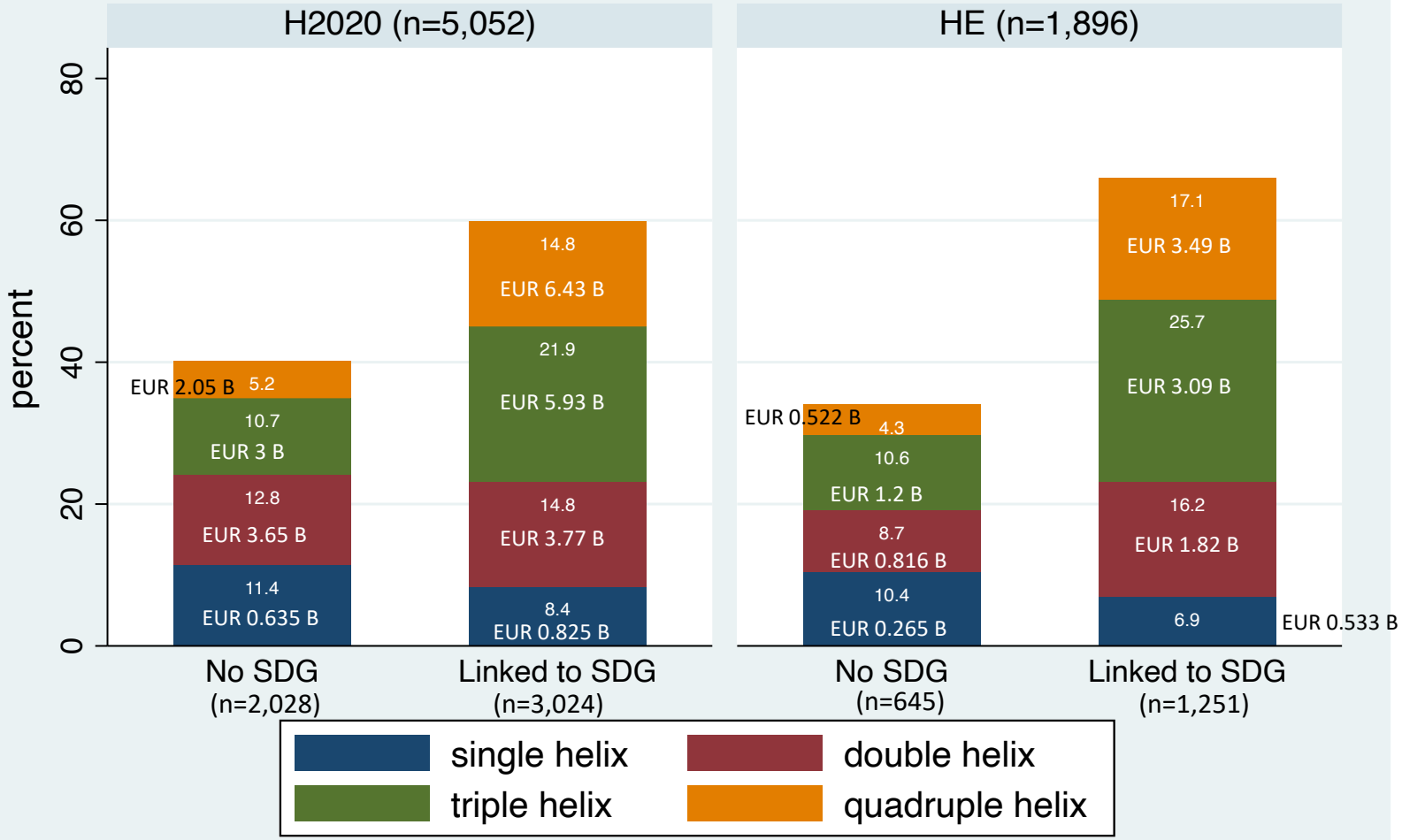
Graphs by Framework Programme

Type of Partnership in Projects



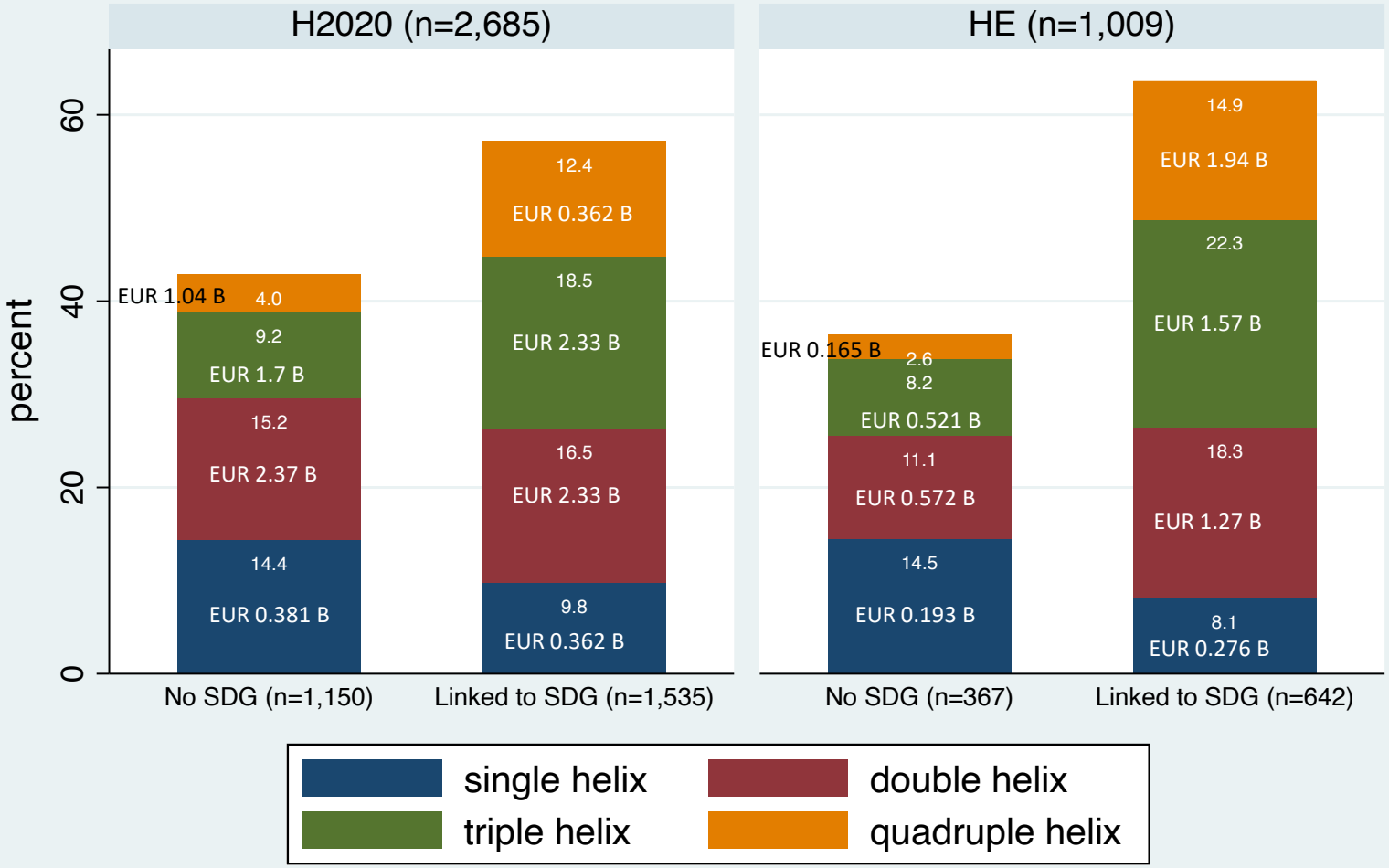
Graphs by Framework Programme

Type of Partnerships of Projects in Belgium



Graphs by Framework Programme

Type of Partnership of Projects in Flanders



Graphs by Framework Programme

3. STAKEHOLDERS: FOCUS OP BEDRIJVEN EN BURGER

INDUSTRY PARTICIPATION
IN QUADRUPLE HELIX PROJECTS
IN BELGIUM

Framework Programme	SDG project: 1=yes; 0=no		
	0	1	Total
H2020	90	317	407
	22.11	77.89	100.00
HE	2	7	9
	22.22	77.78	100.00
Total	92	324	416
	22.12	77.88	100.00

First row has *frequencies* and
second row has *row percentages*

INDUSTRY PARTICIPATION IN SDG-LINKED QUADRUPLE HELIX PROJECTS IN BELGIUM, BY COMPANY SIZE

Category of the company	Framework Programme		
	H2020	HE	Total
Large	65	1	66
	20.50	14.29	20.37
Medium sized	75	2	77
	23.66	28.57	23.77
Small	58	0	58
	18.30	0.00	17.90
Very large	119	4	123
	37.54	57.14	37.96
Total	317	7	324
	100.00	100.00	100.00

First row has *frequencies* and second row has *column percentages*

INDUSTRY PARTICIPATION IN SDG-LINKED QUADRUPLE HELIX PROJECTS IN BELGIUM, BY COMPANY SIZE

Category of the company	Framework Programme		
	H2020	HE	Total
Large	65	1	66
	20.50	14.29	20.37
Medium sized	75	2	77
	23.66	28.57	23.77
Small	58	0	58
	18.30	0.00	17.90
Very large	119	4	123
	37.54	57.14	37.96
Total	317	7	324
	100.00	100.00	100.00

1. BELGISCH LABORATORIUM VAN ELEKTRICITE
2. NETCOMPANY – INTRASOFT
3. SERCO BELGIUM
4. AVR BVBA
5. CENTRICA BUSINESS SOLUTIONS BELGIUM
6. DE CEUSTER MESTSTOFFEN
7. ECOPOWER
8. GOPA COM
9. MACQ SA
10. VERHAERT NEW PRODUCTS & SERVICES NV

1. TECHNOPOLIS CONSULTING GROUP BELGIUM

1. JANSSEN PHARMACEUTICA NV
2. UCB BIOPHARMA
3. ALSTOM BELGIUM SA
4. HAVEN VAN ANTWERPEN-BRUGGE
5. TRACTEBEL ENGINEERING
6. SPI (Liege)
7. AQUAFIN NV
8. PROCTER & GAMBLE SERVICES COMPANY NV
9. TOYOTA MOTOR EUROPE NV
10. VLAAMSE MAATSCHAPPIJ VOOR WATERVOORZI.

1. COBALT WATER EU BV
2. VLAAMSE MAATSCHAPPIJ VOOR WATERVOORZIENING
3. SKYEBASE
4. SOCIETE NATIONALE DES CHEMINS DE FER BELGES

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INDUSTRY PARTICIPATION IN NON-SDG QUADRUPLE HELIX PROJECTS, BY COMPANY SIZE

Category of the company	Framework Programme		
	H2020	HE	Total
Large	16	0	16
	17.78	0.00	17.39
Medium sized	26	0	26
	28.89	0.00	28.26
Small	8	0	8
	8.89	0.00	8.70
Very large	40	2	42
	44.44	100.00	45.65
Total	90	2	92
	100.00	100.00	100.00

First row has *frequencies* and second row has *column percentages*

INDUSTRY PARTICIPATION IN NON-SDG QUADRUPLE HELIX PROJECTS, BY COMPANY SIZE

Category of the company	Framework Programme		
	H2020	HE	Total
Large	16	0	16
	17.78	0.00	17.39
Medium sized	26	0	26
	28.89	0.00	28.26
Small	8	0	8
	8.89	0.00	8.70
Very large	40	2	42
	44.44	100.00	45.65
Total	90	2	92
	100.00	100.00	100.00

1. ORGANIC WASTE SYSTEMS NV
2. A.S.T.R.I.D. SA
3. BE-MOBILE
4. BELGAN BV
5. BELGORAIL
6. CENTRICA BUSINESS SOLUTIONS BELGIUM
7. IDELUX EAU
8. IPSOS NV
9. IRISNET
10. NETCOMPANY - INTRASOFT

1. JANSSEN PHARMACEUTICA NV
2. UCB BIOPHARMA
3. GLAXOSMITHKLINE BIOLOGICALS SA
4. TOYOTA MOTOR EUROPE NV
5. AMGEN
6. ZOETIS BELGIUM SA
7. AQUAFIN NV
8. ALSTOM BELGIUM SA
9. ARCELORMITTAL BELGIUM NV
10. ATOS BELGIUM

1. LISTO BVBA
2. EDWARDS LIFESCIENCES BELGIUM BVSKYEBASE

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SDG-LINKED PROJECTS WITH CIVIL SOCIETY PARTNER

Double helix SDG Projects: n=493
Triple helix SDG Projects: n=2493
Quadruple helix SDG Projects: n=1820
Total n=4752

Actors in projects	Framework Programme		
	H2020	HE	Total
AR (Acad_Research)	6197	1565	7762
I (Industry)	3361	283	3644
G (Government)	89	16	105
CS (Civil Society)	114	16	130
AR_I	2133	756	2889
AR_G	156	60	216
AR_CS	239	108	347
I_G	34	2	36
I_CS	67	32	99
G_CS	45	2	47
AR_I_G	488	168	656
AR_I_CS	1473	611	2084
AR_G_CS	224	65	289
I_G_CS	62	4	66
AR_I_G_CS	1290	530	1820
Total	15972	4218	20190

CIVIL SOCIETY PARTICIPANTS IN QUADRUPLE HELIX SDG PROJECTS IN **BELGIUM**

1. UICN, BUREAU DE REPRESENTATION AUPRES DE L'UNION EUROPEENNE AISBL
2. GREENOVATE ! EUROPE
3. WWF EUROPEAN POLICY PROGRAMME
4. PLATE-FORME TECHNOLOGIQUE EUROPEENNE PLANTES POUR LE FUTUR
5. EUROPEAN ROAD TRANSPORT TELEMATICS IMP (ERTICO)
6. UNION INTERNATIONALE DES TRANSPORTS PUBLICS
7. VLAAMS INSTITUUT VOOR DE LOGISTIEK VZW
8. ANTWERP MARITIME INFORMATION SYSTEMS ANTWERPSE MARITIEME INFORMATIESYSTEMEN
9. FEDERATION DE L'INDUSTRIE EUROPEENNE DE LA CONSTRUCTION
10. EUROPEAN REGIONS RESEARCH AND INNOVATION NETWORK

1. POLIS
2. UNION INTERNATIONALE DES TRANSPORTS PUBLICS
3. EUROCITIES ASBL
4. EUROPEAN ROAD TRANSPORT TELEMATICS IMP (ERTICO)
5. COMITE EUROPEEN DE COORDINATION DES INDUSTRIES RADIOLOGIQUES ELECTROMEDICALES ET D INFORMATIQUE DE SANTE AISBL (COCIR)
6. ASSOCIATION OF CITIES AND REGIONS FOR SUSTAINABLE RESOURCE MANAGEMENT
7. EUROPEAN REGIONS RESEARCH AND INNOVAT. (ERRIN)
8. EUROPEAN BUSINESS AND INNOVATION CENTER
9. EUROPEAN NETWORK OF LIVING LABS IVZW
10. FORUM DES PATIENTS EUROPEENS

Actors in projects	Framework Programme		
	H2020	HE	Total
AR (Acad_Research)	376	110	456
I (Industry)	64	12	72
G (Government)	7	3	8
CS (Civil Society)	12	6	17
AR_I	890	237	858
AR_G	41	7	35
AR_CS	99	47	111
I_G	1	0	1
I_CS	48	16	44
G_CS	5	1	6
AR_I_G	288	80	267
AR_I_CS	1589	371	1176
AR_G_CS	193	34	135
I_G_CS	45	3	16
AR_I_G_CS	1745	324	1073
Total	5403	1251	4275

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CIVIL SOCIETY PARTICIPANTS IN QUADRUPLE HELIX SDG PROJECTS IN **BRUSSELS**

1. POLIS
2. UNION INTERNATIONALE DES TRANSPORTS PUBLICS
3. EUROCITIES ASBL
4. EUROPEAN ROAD TRANSPORT TELEMATICS IMP (ERTICO)
5. WATER EUROPE
6. COMITE EUROPEEN DE COORDINATION DES INDUSTRIES RADIOLOGIQUES ELECTROMEDICALES ET D'INFORMATIQUE DE SANTE AISBL (COCIR)
7. ASSOCIATION OF CITIES AND REGIONS FOR SUSTAINABLE RESOURCE MANAGEMENT
8. EUROPEAN REGIONS RESEARCH AND INNOVAT. (ERRIN)
9. EUROPEAN BUSINESS AND INNOVATION CENTER
10. EUROPEAN NETWORK OF LIVING LABS NZW
11. FORUM DES PATIENTS EUROPEENS
12. ASSOCIATION EUROPEENNE DES EXPOSITIONS SCIENTIFIQUES, TECHNIQUES ET INDUSTRIELLES
13. CONSEIL DES ARCHITECTES D'EUROPE
14. PROSPEX INSTITUTE
15. ACE PLATFORM EUROPE
16. AGENCE BRUXELLOISE POUR L'ACCOMPAGNEMENT DE L'ENTERPRISE
17. ASSOCIATION EUROPEENNE DES AGENCES DE DÉVELOPPEMENT
18. FEDERATION EUROPEENNE DES GEOLOGUES
19. EUROPEAN FOOD INFORMATION COUNCIL
20. EuroGeoSurveys - EGS

Actors in projects	Framework Programme		
	H2020	HE	Total
AR (Acad_Research)	80	21	101
I (Industry)	11	5	16
G (Government)	5	3	8
CS (Civil Society)	9	6	15
AR_I	211	75	286
AR_G	17	3	20
AR_CS	51	33	84
I_G	1	0	1
I_CS	22	13	35
G_CS	5	1	6
AR_I_G	113	50	163
AR_I_CS	574	264	838
AR_G_CS	84	27	111
I_G_CS	12	2	14
AR_I_G_CS	604	241	845
Total	1799	744	2543

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CIVIL SOCIETY PARTICIPANTS IN QUADRUPLE HELIX SDG PROJECTS IN **FLANDERS**

1. EUROPEAN ASSOCIATION FOR PALLIATIVE C
2. OPEN GEOSPATIAL CONSORTIUM EUROPE
3. BOERENBOND PROJECTEN
4. EUROPEAN PASSENGERS' FEDERATION IVZW
5. VLAAMS INSTITUUT VOOR DE LOGISTIEK VZW
6. ASSOCIATION EUROPEENNE LEADER POURLE DEVELOPPEMENT RURAL
7. EUROPEAN AQUACULTURE SOCIETY
8. EUROPESE FEDERATIE VAN FAMILIEVERENIGINGEN VAN PSYCHIATRISCH ZIEKE PERSONEN IVZW
9. LEUVEN KLIMAATNEUTRAAL 2030
10. ANTWERP MARITIME INFORMATION SYSTEMS
11. DE BLAUWE CLUSTER
12. ETI FOOD
13. EUROPEAN NURSERYSTOCK ASSOCIATION
14. GASTHUISZUSTERS ANTWERPEN
15. GREEN ENERGY PARK
16. IMPACT
17. OffshoreWind4Kids vzw
18. RIKOLTO INTERNATIONAL
19. VOKA - KAMER VAN KOOPHANDEL ANTWERPEN
20. Vlaamse Erfgoedbibliotheken vzw

1. INNOVATIETESTEUNPUNT VOOR LANDBOUW ENPLATTELAND
2. MOBIEL 21 VZW
3. OPEN GEOSPATIAL CONSORTIUM EUROPE
4. ANTWERP MARITIME INFORMATION SYSTEMS ANTWERPSE MARITIEME INFORMATIESYSTEMEN
5. E2ARC ARCHITECTURE RESEARCH FOR CITIES
6. EUROPEAN MARINE BOARD IVZW
7. VLAAMS INSTITUUT VOOR DE LOGISTIEK VZW
8. AIR CARGO BELGIUM
9. BIOFORUM
10. EUROPEAN PASSENGERS' FEDERATION IVZW
11. AUTODELEN.NET, VLAAMS NETWERK AUTODELEN
12. BELGIAN CENTER FOR OCCUPATIONAL HYGIENE
13. BELGISCHE VERENIGING VOOR MEDISCHE ONCOLOGIE
14. BIOGAS-E - PLATFORM VOOR IMPLEMENTATIE VAN ANAEROBE VERGISTING IN VLAANDEREN VZW
15. BOERENBOND
16. BOERENNATUUR VLAANDEREN
17. BOS+ VLAANDEREN VZW
18. DJAPO
19. EDUCENTRUM
20. EUROGEO VZW

Actors in projects	Framework Programme		
	H2020	HE	Total
AR (Acad_Research)	225	79	304
I (Industry)	36	3	39
CS (Civil Society)	2	0	2
AR_I	402	154	556
AR_G	13	4	17
AR_CS	18	20	38
I_CS	10	7	17
AR_I_G	99	35	134
AR_I_CS	365	179	544
AR_G_CS	28	10	38
I_G_CS	5	1	6
AR_I_G_CS	332	150	482
Total	1535	642	2177

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BESLUIT

- Financiering in KP's voor duurzame O&I-projecten stijgt. Algemeen nog meer projecten en middelen naar niet-SDG-projecten, maar in België of Vlaanderen is dit omgekeerd.

- Maar: vertaald naar SDG's, welke SDG's? Eerder economisch karakter?
  - SDG3 gezondheid
  - SDG7 energie
  - SDG9 infrastructuur, industrialisatie, innovatie
  - SDG12 consumptie en productie
  - SDG13 klimaatverandering

- Meeste middelen gaan naar EUR15-landen, ook voor SDG-projecten

- Partnerschappen:
  - Algemeen daalt het aantal projecten naargelang aantal actoren, MAAR:
    - bij SDG-projecten: relatief méér projecten met méérdere actoren
    - SDG-projecten: minder projecten maar méér middelen
  - Situatie in België en Vlaanderen:
    - méér SDG-projecten dan niet-SDG-projecten
    - méér middelen
    - méér nadruk og ruimere samenwerkingen

- Actoren:
  - Algemeen grotere deelname van zeer grote bedrijven
  - 'Burger' > veel belangengroepen, platformen, netwerken

Bedankt voor uw aandacht

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