

# European and international defense initiatives a focus on maritime opportunities (EDF, EDA and DIANA)

Mark Antonissen – VLAIO / NCP Flanders

Navy Technofest - Captains of Industry Day  
October 4<sup>th</sup> 2024



EDIS | Our common defence industrial strategy

## The European Defence Industrial Strategy

The European Union needs to strengthen the **European Defence Technological and Industrial Base (EDTIB)** and achieve **defence industrial readiness**. This is necessary to better protect our citizens and support our partners

EDIS is a joint communication of the Commission and the High Representative that sets a vision for the European defence industrial policy until 2035 and announces the following actions:

- Strengthen the EDTIB through increased, more collaborative and European investment from Member States;
- Improve the responsiveness of the European defence industry under any circumstances and time horizon;
- Mainstream a defence readiness culture, including across EU policies;
- Team up with our strategic, like-minded and international partners.

[EDIS Factsheet](#)



EDIP | The Future of Defence

## The European Defence Industry Programme

EDIP is a Regulation proposed by the Commission to start implementing concrete measures identified in the European Defence Industrial Strategy (EDIS). EDIP looks to:

- Provide financial support with €1.5 billion from the EU budget over the period 2025-2027
- Strengthen the competitiveness and responsiveness of the EDTIB
- Ensure the availability and supply of defence products
- Promote cooperation with Ukraine on the recovery, reconstruction and modernisation of its defence industry

[EDIP Factsheet](#)



EUROPEAN UNION

## THE EUROPEAN DEFENCE FUND

#EUDefenceIndustry  
#STRONGEREUROPE

# European Defence Fund

## The EU defence R&D programme

Support collaborative and cross-border R&D, incl. disruptive technologies

Contribute to the competitiveness and innovation capacity of the EDTIB

Encourage the participation of SMEs and other actors not usually active in the defence field

Help reducing fragmentation

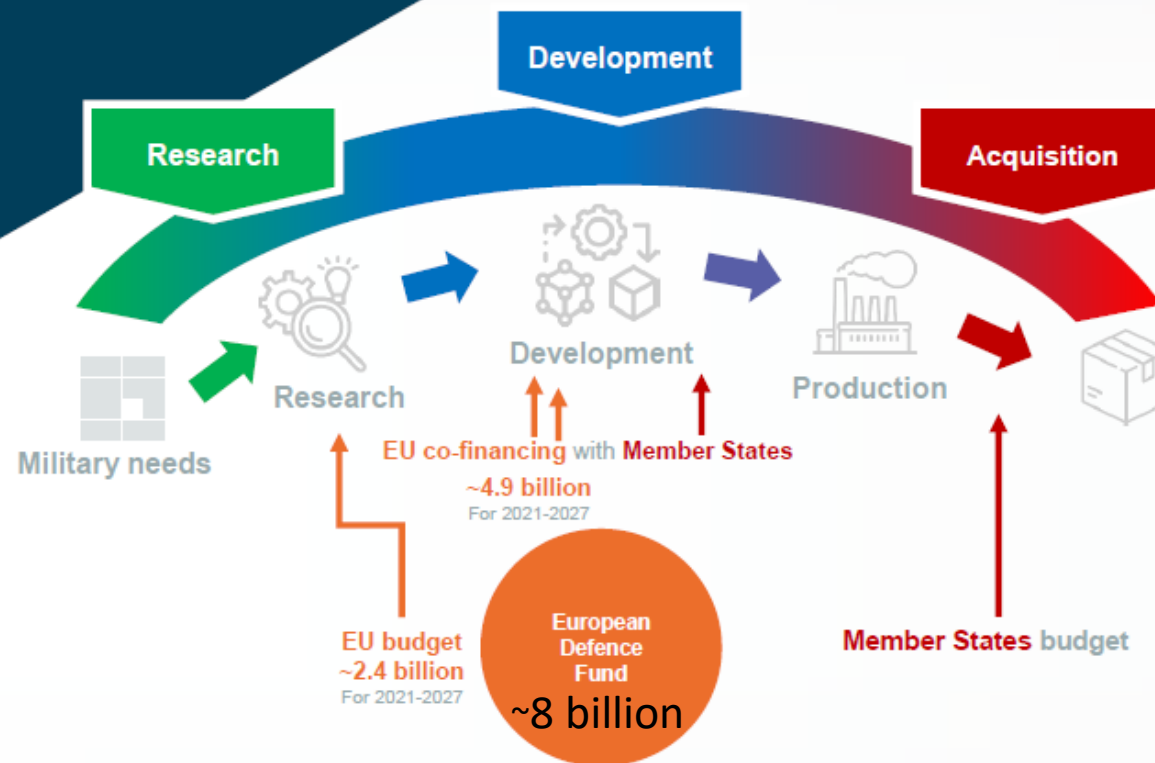
Help building partnerships

Help maximising the outcome of defence spending

Contribute to close defence technological shortfalls

Strengthen other security and defence initiatives

Strengthen Europe's resilience and strategic autonomy



- EDF financial support mainly in the form of grants
- Open to EU Member States and Norway
- Security-based participation conditions for entities controlled by third-countries



# EDF Categories of Actions

## Addressed by annual work programmes & calls for proposals

-  **Medical response, CBRN & human factors**
-  **Information superiority**
-  **Sensors**
-  **Cyber**
-  **Space**
-  **Digital transformation**
-  **Energy resilience & environmental transition**
-  **Materials and components**

-  **Air combat**
-  **Air and Missile defence**
-  **Ground combat**
-  **Force protection and mobility**
-  **Naval combat**
-  **Underwater warfare**
-  **Simulation and training**



### Horizontal categories

-  **Disruptive technologies**
-  **Innovative defence technologies (SMEs)**



# Eligibility of consortia and entities

## Consortia

- at **least three eligible entities** established in at least three different Member States / Norway

## Exception

- call for disruptive technologies at **least two eligible entities** established in at least two different Member States / Norway

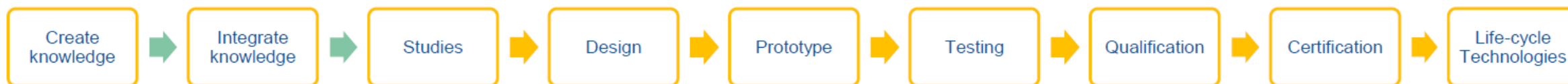
## Entities



# Eligible actions

- Background and generated foreground **Intellectual Property (IP)** shall **not be subject to any control or restriction** by non-EU countries/entities<sup>1</sup>

## Activities:



**Research actions:** applied/fundamental research, exclusive focus on defence applications - *low TRL (up to 4/5)*

|      |      |      |      |  |  |  |  |  |
|------|------|------|------|--|--|--|--|--|
| 100% | 100% | 100% | 100% |  |  |  |  |  |
|------|------|------|------|--|--|--|--|--|

**Development actions:** defence-oriented development (new/upgrade products/technologies) - *higher TRL (5-8)*

|             |      |      |      |     |     |     |     |      |
|-------------|------|------|------|-----|-----|-----|-----|------|
| Baseline:   | 65%  | 90%  | 65%  | 20% | 45% | 70% | 70% | 65%  |
| @max bonus: | 100% | 100% | 100% | 55% | 80% | 80% | 80% | 100% |

- Support of at least two MS/NO (Letter of Intent, co-funding) is required**

# The bonus system: development actions

20  
24

| Condition for application                                                         | Value of the bonus*                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PESCO Bonus                                                                       |                                                                                                                                                                                                                  |
| Action developed in context of the Permanent Structured Cooperation (PESCO)       | +10% for <b>all activities</b> in the action                                                                                                                                                                     |
| 'Mid-cap' bonus                                                                   |                                                                                                                                                                                                                  |
| % eligible costs allocated to 'Midcaps' established in the EU (or NO) $\geq 15\%$ | +10% <b>for the activity</b>                                                                                                                                                                                     |
| SME Bonus                                                                         |                                                                                                                                                                                                                  |
| % eligible costs allocated to 'SMEs' established in the EU (or NO) $\geq 10\%$    | % of eligible costs allocated to ' <b>non cross-border SMEs</b> ' established in the EU or NO (maximum 5%)<br>+<br>2 x % of eligible costs allocated to ' <b>cross-border SMEs</b> ' established in the EU or NO |

Bonus system to **incentivise participation of SMEs and mid-caps**

\* Overall bonus capped to 35%

- Each proposal shall be submitted against one topic
- Each topic is structured in sections
  - Objectives (General/Specific) } Context setting and description of problem/shortfall to be solved/addressed (capability, technology, operational,...)
  - Scope }  **Mandatory unless otherwise specified in the text**  
→ **Eligibility of the action**
  - Types of activities (\*) }
  - Functional requirements } Compliance evaluated in award criteria
  - Expected impact }

(\*) Article 10(3) of EDF regulation: a) generating knowledge; b) integrating knowledge; c) studies; d) design; e) prototyping; f) testing; g) qualification; h) certification; i) increasing efficiency

# EDF in perspective

Since the adoption of EDF Regulation in May 2021:

- **€2 billion** in signed grant agreements
- **More than €3 billion** in awarded projects
- **More than €4 billion** programmed/committed
- **Programming advanced for the 5<sup>th</sup> WP (EDF25)**

On top of:

- **PADR 2017-2019 – €90 M; 18 projects**
- **EDIDP 2019-2020 – €500 M; 44 projects**
- **ASAP – €513 M; 31 projects**
- **EDIRPA – calls open; €310 M**

## EDF 2021

**€1.17 billion**  
**60 projects selected**

142 proposals submitted

692 entities from 26 MS + NO  
**43% SMEs**

18.4% of overall budget allocated to SMEs

## EDF 2022

**€0.83 billion**  
**41 projects selected**

134 proposals submitted

550 entities from 26 MS + NO  
**39% SMEs**

19.8% of overall budget allocated to SMEs

## EDF 2023

**€1.135 billion**  
**2 projects + 54 proposals selected**

BE participates in 27 of them

238 proposals submitted

581 entities from 26 MS + NO  
**42% SMEs**

18% of overall budget allocated to SMEs

In average, 17 entities from 8 Member States and Norway involved in a single project  
Overall, entities from 26 Member States and Norway

# Naval and space technology dominate the first three years of the European Defence Fund

28 May 2024 | News

## The two sectors received most funding from the EDF, collecting 22% of the total EU contribution

The results of the European Defence Fund's (EDF) 2023 call saw 54 projects awarded total funding of just above €1 billion. In all, 581 organisations will take part in this third batch of projects, with SMEs receiving 18% of the total funding.

**Naval- and space-focused projects have now attracted around €692 million over the course of the scheme's three years of existence. This amounts to around 22% of the total EU investment in the fund.**

Air combat and ground combat follow... .

<https://sciencebusiness.net/news/r-d-funding/naval-and-space-technology-dominate-first-three-years-european-defence-fund>

# EDF Work Programme 2024

EUR ~1.10 billion

34 topics

Opening of the calls: 20 June 2024

Deadline for submission: 5 November 2024 17.00 CET

|                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  <b>Medical Response &amp; CBRN</b>                          | <ul style="list-style-type: none"> <li>SGA under FPA on medical countermeasures  15 M€</li> <li>SGA under FPA on medical countermeasures  10 M€</li> </ul>                                                                                                                                                       |  |
|  <b>Information superiority</b>                              | <ul style="list-style-type: none"> <li>AI-based multifunctional aperture and transceiver  45 M€</li> <li>Defence multi-dimensional communication standard  25 M€</li> <li>Small UAS  11 M€</li> <li>MALE RPAS 100 M€</li> </ul> |  |
|  <b>Sensors</b>                                              | <ul style="list-style-type: none"> <li>Advanced radar technologies 35 M€</li> <li>Multi-sensors integration for autonomous drone navigation (challenge, 2 topics) 27 M€</li> </ul>                                                                                                                                                                                                                                                                                                     |  |
|  <b>Cyber</b>                                                | <ul style="list-style-type: none"> <li>Federated cyber ranges  48 M€</li> </ul>                                                                                                                                                                                                                                                                                                                       |  |
|  <b>Space</b>                                                | <ul style="list-style-type: none"> <li>Multi-source satellite image analysis (challenge, 2 topics) 25 M€</li> <li>Secure waveform for satellite communications  25 M€</li> </ul>                                                                                                                                                                                                                    |  |
|  <b>Digital transformation</b>                               | <ul style="list-style-type: none"> <li>Automated structural modelling for effect prediction 15 M€</li> </ul>                                                                                                                                                                                                                                                                                                                                                                           |  |
|  <b>Energy &amp; Environment</b>                           | <ul style="list-style-type: none"> <li>Energy-independent and energy-efficient systems for military camps  40 M€</li> </ul>                                                                                                                                                                                                                                                                         |  |
|  <b>Materials &amp; Components</b>                         | <ul style="list-style-type: none"> <li>Electronic components (spin-in)  25 M€</li> </ul>                                                                                                                                                                                                                                                                                                            |  |
| <b>Legend:</b> Research Development EUDIS-related  STEP |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
|  <b>Air combat</b>                                        | <ul style="list-style-type: none"> <li>Advanced air-to-air missiles 35 M€</li> <li>Unmanned collaborative combat aircraft systems  15 M€</li> <li>Next generation rotorcraft 100 M€</li> </ul>                                                                                                                                                                                                      |  |
|  <b>Air &amp; missile defence</b>                         | <ul style="list-style-type: none"> <li>Countering Hypersonic glide vehicles 78 M€</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                           |  |
|  <b>Ground combat</b>                                     | <ul style="list-style-type: none"> <li>Intelligent weaponry and ammunition systems 30 M€</li> <li>Unmanned ground systems  50 M€</li> <li>Beyond the line-of-sight close combat 25 M€</li> <li>Armoured infantry fighting vehicle 25 M€</li> </ul>                                                                                                                                                  |  |
|  <b>Protection &amp; Mobility</b>                         | <ul style="list-style-type: none"> <li>Future mid-size tactical cargo aircraft 30 M€</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                        |  |
|  <b>Naval combat</b>                                      | <ul style="list-style-type: none"> <li>Functional smart system-of-systems under integral survivability approach for future naval platforms 45 M€</li> </ul>                                                                                                                                                                                                                                                                                                                            |  |
|  <b>Underwater warfare</b>                                | <ul style="list-style-type: none"> <li>Secured/adaptive underwater communications for UUVs  24 M€</li> <li>Autonomous heavy minesweeping system 30 M€</li> </ul>                                                                                                                                                                                                                                    |  |
|  <b>Simulation &amp; training</b>                         | <ul style="list-style-type: none"> <li>Methods for bridging reality gaps (cascade funding)  15 M€</li> <li>Simulation and training for medical emergencies  10 M€</li> </ul>                                                                                                                                     |  |
|  <b>Disruptive technologies</b>                          | <ul style="list-style-type: none"> <li>Quantum technologies  24 M€</li> <li>Non-thematic research 16 M€</li> </ul>                                                                                                                                                                                                                                                                                 |  |
|  <b>SMEs</b>                                            | <ul style="list-style-type: none"> <li>Non-thematic research for SMEs and ROs 34 M€</li> <li>Non-thematic development for SMEs 33 M€</li> </ul>                                                                                                                                                                                                                                                                                                                                        |  |
|  <b>Others</b>                                          | <ul style="list-style-type: none"> <li>External expertise, audits, studies, IT, indirect management 7.6 M€</li> <li>Business coaching for SMEs 1.6 M€</li> <li>Blending facility for equity funding for SMEs/Mid-Caps 20 M€</li> <li>Business accelerating services 2.6 M€</li> <li>Matchmaking events for investors and SMEs 0.6 M€</li> <li>EDF hackathon events 1.2 M€</li> </ul>                                                                                                   |  |

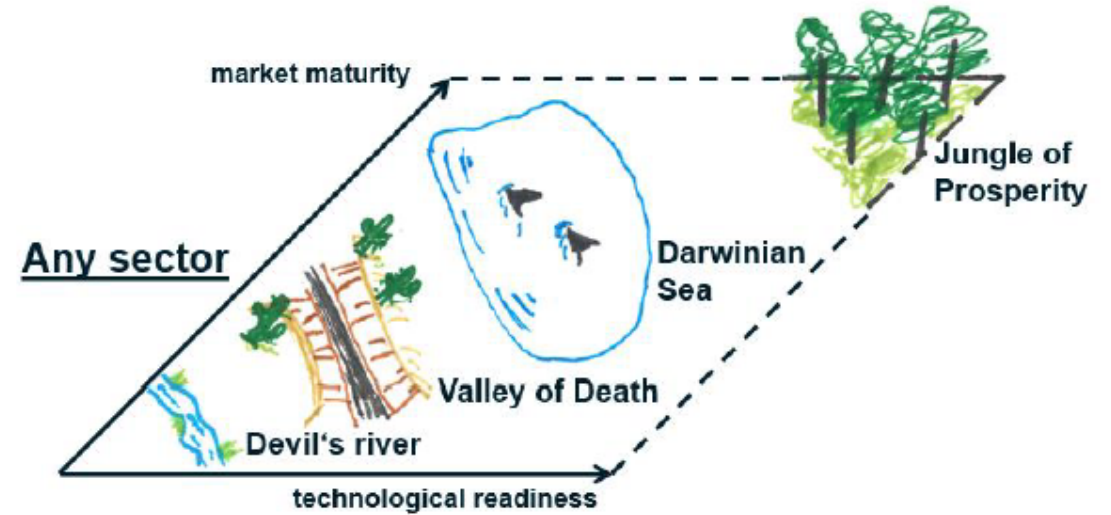
#EUDefenceIndustry



# EU Defence Innovation Scheme

*A stronger defence innovation ecosystem*

- **Focus on SMEs, including start-ups and non-traditional players** in defence industrial ecosystem
- Tap into the full **potential of defence & civil** innovation communities
- Many opportunities, depending on **innovation maturity level**
- Investment ambition close to **€ 2 billion until 2027**
- **Integrated in the EDF**
- **Five tracks** combine calls & SME support services



# EDF National Focal Points – a network for YOU

>>> Nominated by Member States and Norway

>>> Supported by national structures under their responsibility/control

>>> Inspired by National Contact Points in Horizon Europe

## Main tasks

- Provide practical information and assistance on all aspects of participation in EDF
- Organise awareness raising events
- Help with partner search
- Signpost to relevant national/EU sources

## >>> Find your EDF National Focal Point

Through our website under

EU Defence Policy > Network of European Defence Fund National Focal Points (NFP)

[https://defence-industry-space.ec.europa.eu/eu-defence-industry/network-european-defence-fund-national-focal-points-nfp\\_en](https://defence-industry-space.ec.europa.eu/eu-defence-industry/network-european-defence-fund-national-focal-points-nfp_en)



# EUROPEAN DEFENCE AGENCY

## Capability Technology Areas (CapTechs)

NCP Flanders

**fwo** Fonds Wetenschappelijk Onderzoek  
Vlaanderen  
Opening new horizons

**VLAIO**  Vlaanderen  
is ondernemen

# EDA Capability Technology Areas (CapTechs)

- CapTechs to undertake research & technology (R&T) activities in response to agreed defence capability needs in **15 working groups**
- Overarching Strategic Research Agenda (OSRA) defines Technology Building Blocks (TBB) with a roadmap with concrete project ideas
- Participation: to become non-Governmental Expert (CnGE) contact the CapTech National Coordinators (CNC)
  - [BelCNC@mil.be](mailto:BelCNC@mil.be)
- More info:
  - [Capability Technology Areas \(CapTechs\) \(europa.eu\)](https://europa.eu/capability-technology-areas)
  - Calendar : [Industry Engagement Roadmap 2024 \(europa.eu\)](https://europa.eu/industry-engagement-roadmap-2024)
  - [Discover the EDA activities \(europa.eu\)](https://europa.eu/discover-eda-activities)
  - [my.eda.europa.eu](https://my.eda.europa.eu)

# EDA Capability Technology Areas (CapTechs)

## List of CapTechs

1. [CapTech Technologies, Components and Modules](#)
2. [CapTech Radio Frequency Sensors Technologies](#)
3. [CapTech Electro Optical Sensors Technologies](#)
4. [CapTech Communication Information Systems and Networks](#)
5. [CapTech Materials and Structures](#)
6. [CapTech Missiles and Munitions](#)
7. [CapTech Aerial Systems](#)
8. [CapTech Ground Systems](#)
9. [CapTech Guidance, Navigation and Control](#)
10. [CapTech Naval Systems](#)
11. [CapTech Simulation Technologies](#)
12. [CapTech CBRN and Human Factors](#)
13. [CapTech Cyber Research & Technology](#)
14. [CapTech Energy and Environment](#)
15. [CapTech Space](#)

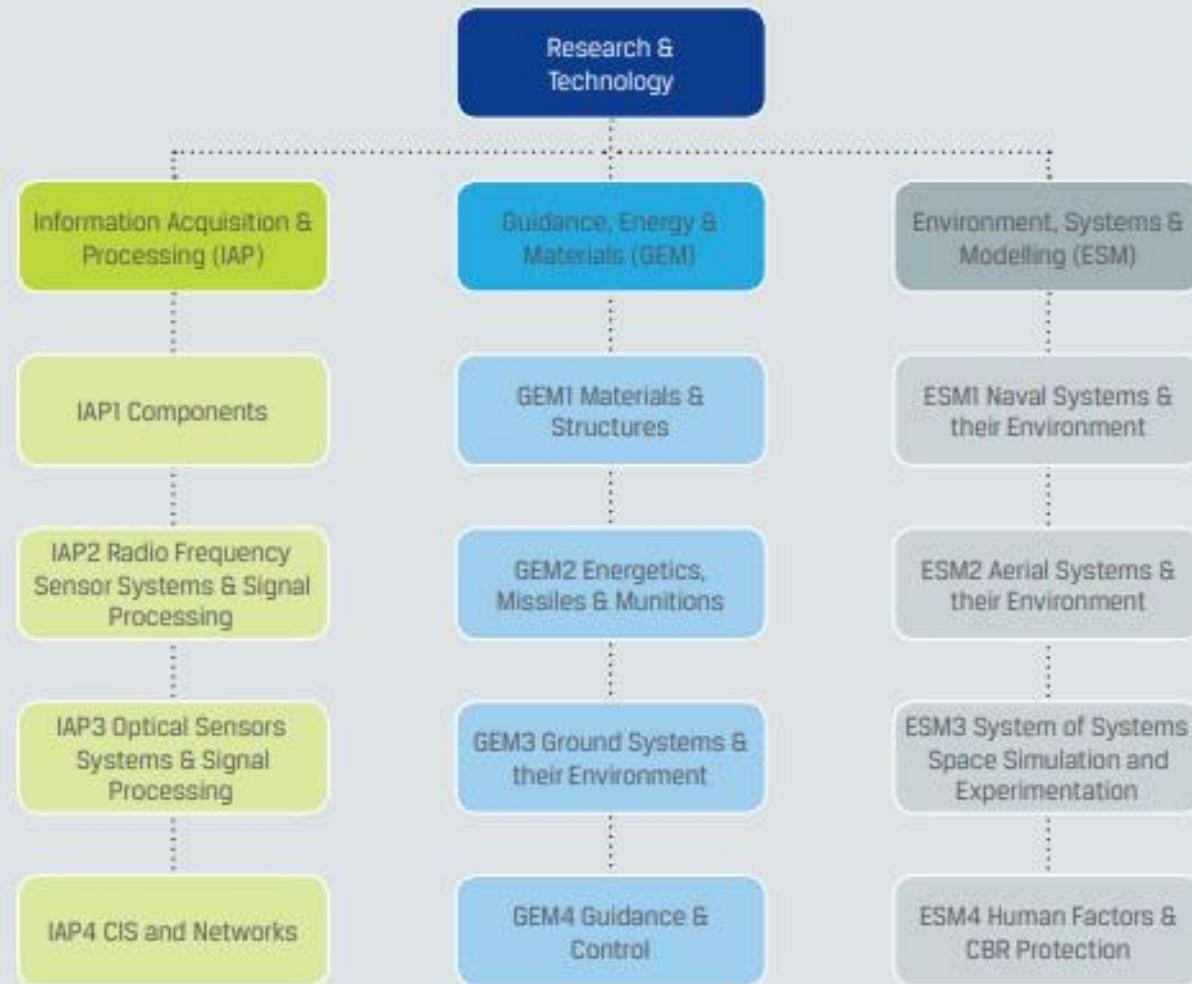
## CapTech Membership

Each CapTech is composed of three membership levels.

- **CapTech National Coordinators** act as the official participating Member State (pMS) representative in the CapTech and coordinates CapTech activities within their pMS, including information exchange.
- **CapTech Governmental Members** are appointed from Governmental organisations such as public RTOs, Ministries of Defence or the Military. CGEs contribute as an expert to specific topics, discussions and activities and supports the CNC in CapTech activities.
- **CapTech non-Governmental Experts** contributes as an expert to CapTech discussions and activities. They may propose R&T ad-hoc projects and studies on a bottom up (technology push) and respond to top-down (capability pull) requests. CnGES are appointed from Industry, Small and Medium-Sized Enterprises (SMEs), Research Organisations, scientific institutes and academia. CnGE membership is subject to the approval of the relevant CNC.

Registrations can be facilitated by contacting the appropriate CapTech moderator via the functional email address which can be found at each of the individual CapTech pages or by registering at the following link [REGISTRATION](#).

## 2. R&T CAPTECH HIGHLIGHTS



# EDA Cat B - Ad Hoc projects and programs

- Collaboration between at least two member states
    - in line with EDA strategic research agenda discussed in CapTech
    - executed by research institutions and industry from the participating member states
  - Approval of EDA Steering board is required
  - Significant effort to complete Project or Programme Arrangement (PA) between nations and a Research Technical Proposal (RTP) between consortium participants
  - Strategic effort for companies willing to position themselves within European consortia
  - Funding support by Belgian Defence is possible and requires an evaluation by RHID
    - Up to 100% of eligible costs for research institutions
    - Up to 50% of eligible costs for industry
- !!! Start to inform RHID ASAP of funding request !!!



NORTH ATLANTIC TREATY ORGANIZATION

# Defence Innovation Accelerator *for the* North Atlantic

# DIANA<sup>®</sup>

Uniting disruptors to shape a  
peaceful future.

NCP Flanders

**fwo** Fonds Wetenschappelijk Onderzoek  
Vlaanderen  
Opening new horizons

**VLAIO**  Vlaanderen  
is ondernemen

# Why, what and how?

Upcoming and disruptive dual-use technologies in a trans-Atlantic innovation ecosystem:

Big data  
Artificial Intelligence (AI)  
Autonomy  
Quantum

Novel materials  
Advanced manufacturing  
Aerospace

Biotechnology  
Human enhancement  
Energy and propulsion

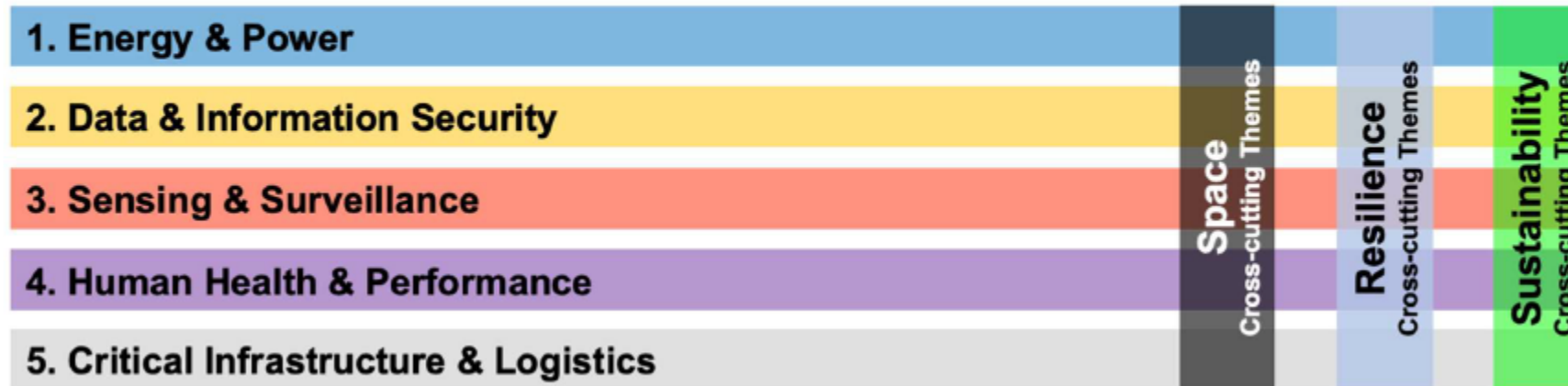


# Project calls 2023 - 2024

- First calls were launched in june 2023 with 3 pilot *challenges*
- The 2024 calls had already 5 *challenges*
- Full operational capacity is expected in 2025 with yearly 10 *challenges*

**DIANA<sup>®</sup>**

*Challenges 2024*



*Figure 1: The Challenge Statements with cross-cutting themes.*

# Testcenters

## Key



Regional Offices



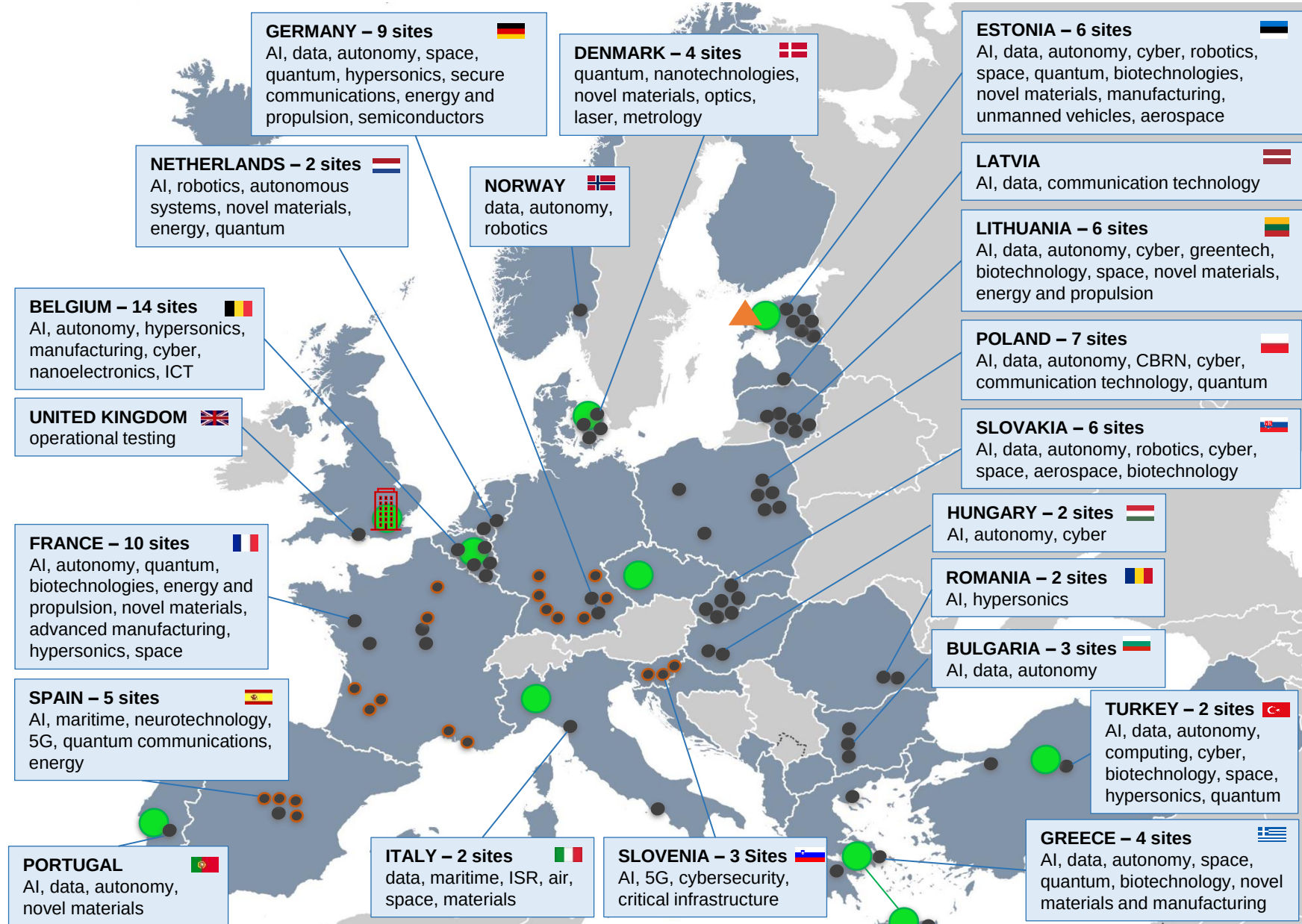
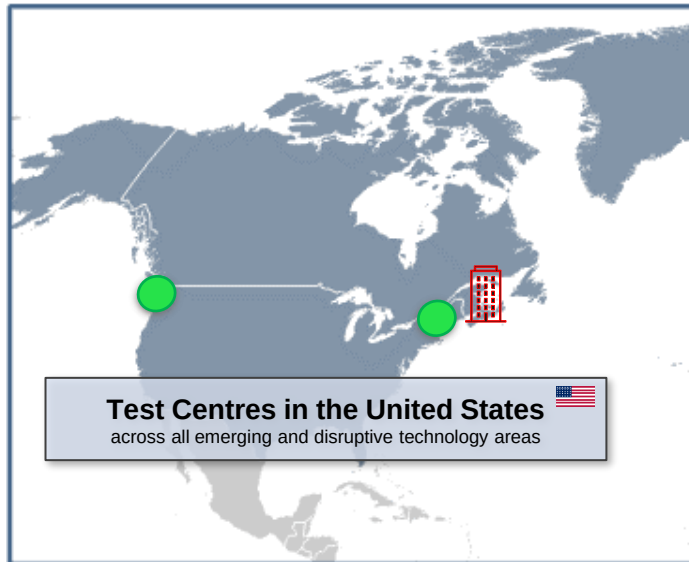
Regional Hub



Test Centres



Accelerators



# NATO Innovation Fund

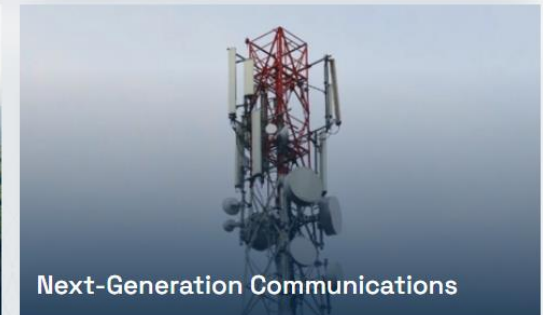
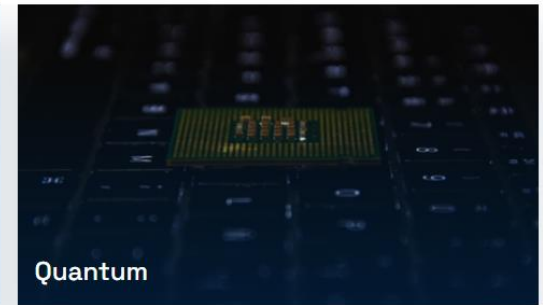
***Investing EUR 1 billion in deep tech to secure the future of the Alliance's 1 billion citizens***

The NATO Innovation Fund (NIF) was created to supercharge the Alliance's unique innovation ecosystems. Allied talent and research in Science, Technology, Engineering, and Mathematics (STEM) are world-leading, but the market to support deep tech innovation is underfunded. With the NIF, we are creating a commercialisation machine in both the private and public sectors, backing innovators to secure the future for the Alliance's 1 billion citizens.

# Focus

The NIF is a standalone **EUR 1 billion venture capital fund** supporting ambitious founders developing emerging and disruptive technologies. For us, high-impact verticals include artificial intelligence (AI), biotechnology, energy & propulsion, manufacturing, and space. We are passionate about autonomy, hypersonics, new materials and quantum, and want to shore up cutting-edge hardware and software.

Rallying around [NATO's Emerging and Disruptive Technologies \(EDTs\)](#), our focus will evolve in parallel with today's rapid innovation environment.



<https://www.nif.fund/>

<https://www.nif.fund/connect>



Thank you for your attention

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