



ROYAL HIGHER INSTITUTE FOR DEFENCE
Kol v/h Vlw Steven Lauwereys, ir



**DEFENSIE
LA DÉFENSE**

Defence, Industry and Research Strategy





**DEFENSIE
LA DÉFENSE**

ROYAL HIGHER
INSTITUTE FOR DEFENCE



Royal Higher Institute for Defence



The Royal Higher Institute for Defence



CENTRE *for* SECURITY *and* DEFENCE STUDIES

SECURITY
&
DEFENCE



High Studies
Security & Defence



SCIENTIFIC *and* TECHNOLOGICAL
RESEARCH *of* DEFENCE

SCIENCE
&
TECHNOLOGY



Defence Industry & Research Strategy



DEFENSIE
LA DÉFENSE

Setting the scene



Belgian
Security and
Defence Policy



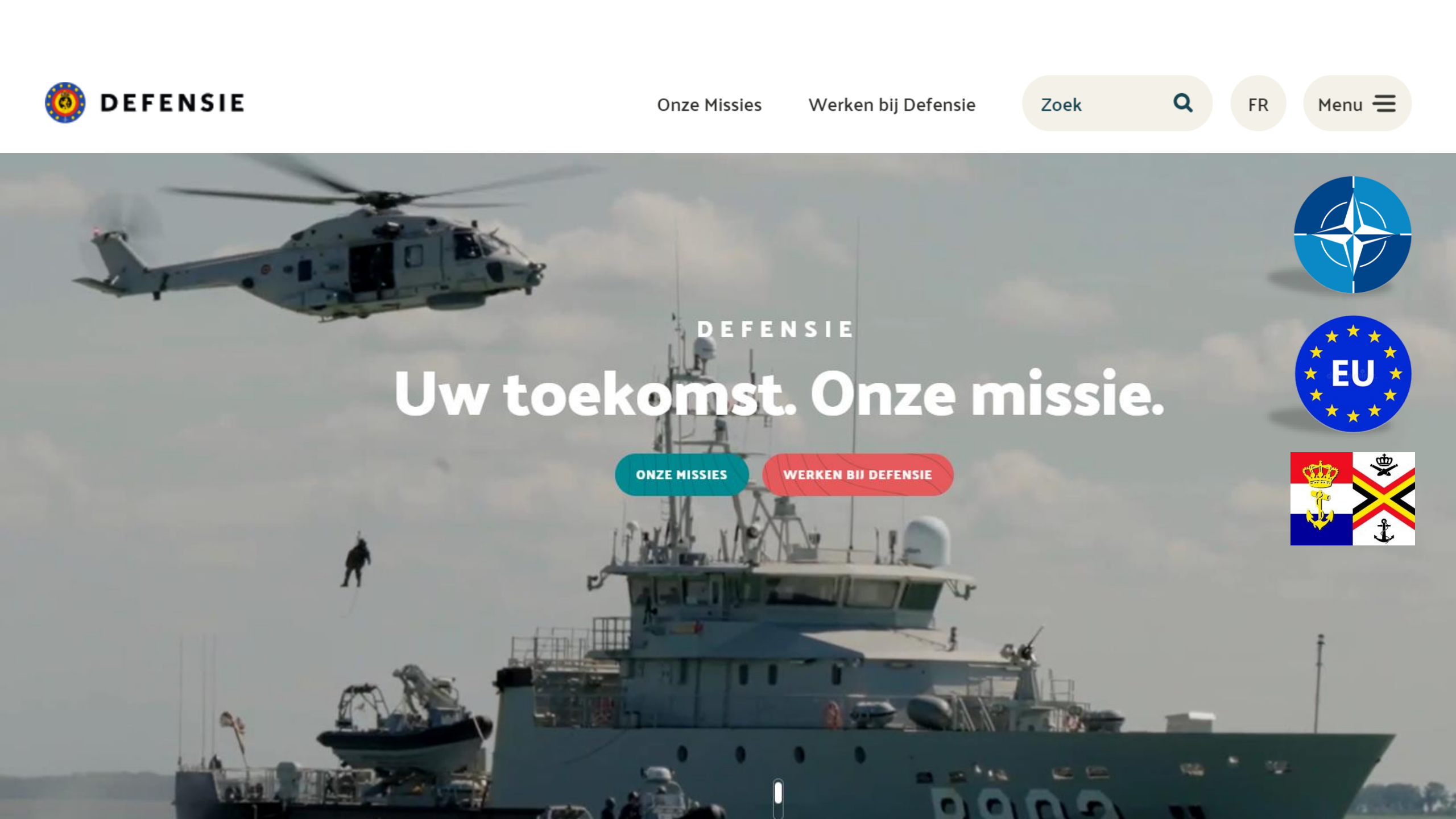
Defence, Industry
and
Research Strategy



Toolbox
Support to RDI



Use cases and
opportunities



DEFENSIE

Uw toekomst. Onze missie.

[ONZE MISSIES](#)[WERKEN BIJ DEFENSIE](#)

Plan STAR : Security – Technology – Ambition - Resilience



People



Equipment

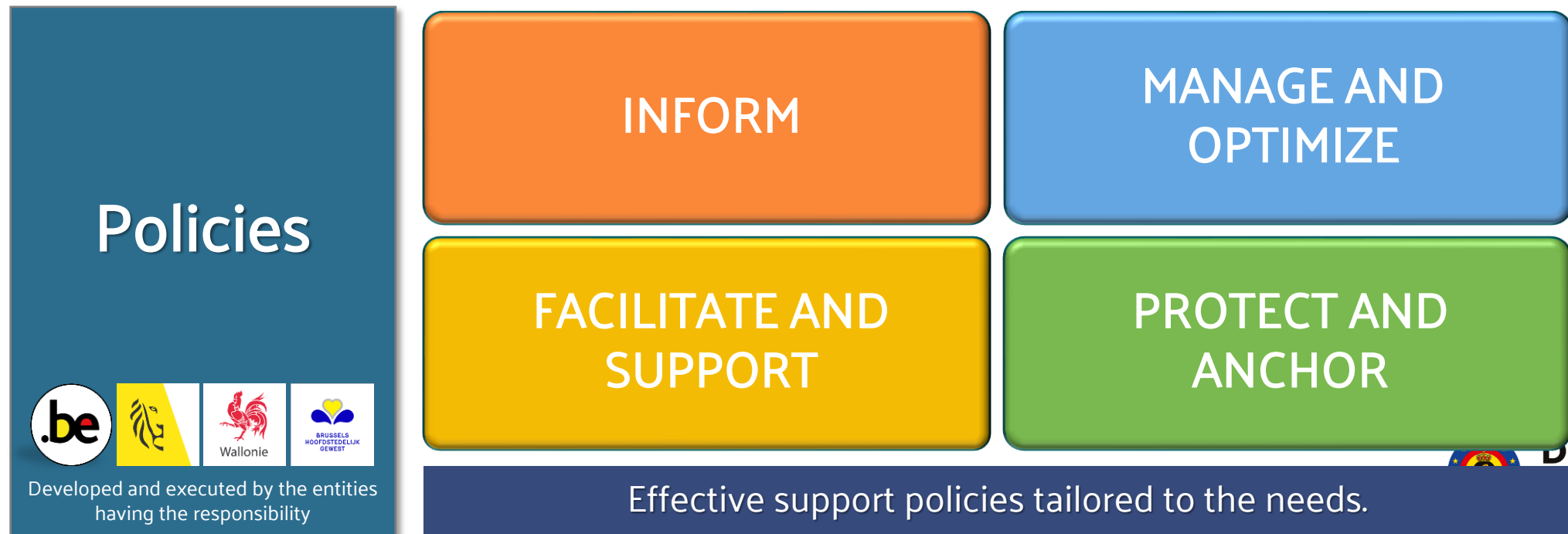


*Defence
Technological and
Industrial Base
(DTIB)*

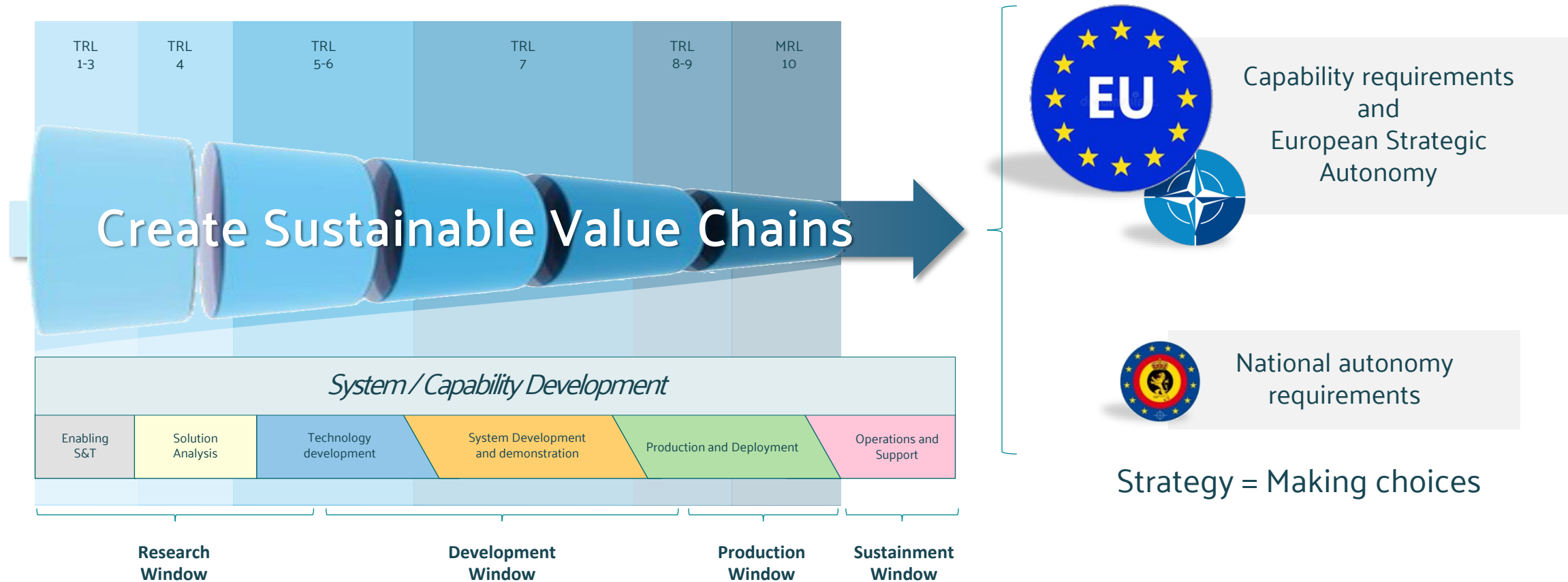


The DIRS is the **overall long-term strategy** for « all » actors involved in the development and support of the national scientific, technological and industrial potential in the field of security and defence.

The DIRS big picture



Vision



Invest upstream to participate from the outset in European and transatlantic capability programs, while also supporting Belgian national capability requirements as needed.

1,8 billion € period 2022-2030

This government outlined an ambitious budget growth trajectory :

M€ _{cte2022}	2022	2023	2024	2025	2026	2027	2028	2029	2030
R&T (TRL <6)	13	22	33	53	74	95	115	136	157
Support to BDTIB					44	48	49	51	53
Large scale R&D programmes						80	160	307	319
Total	13	22	33	53	118	223	324	494	529
Cumulated Total	13	35	68	121	239	462	786	1.280	1.809

Plan STAR

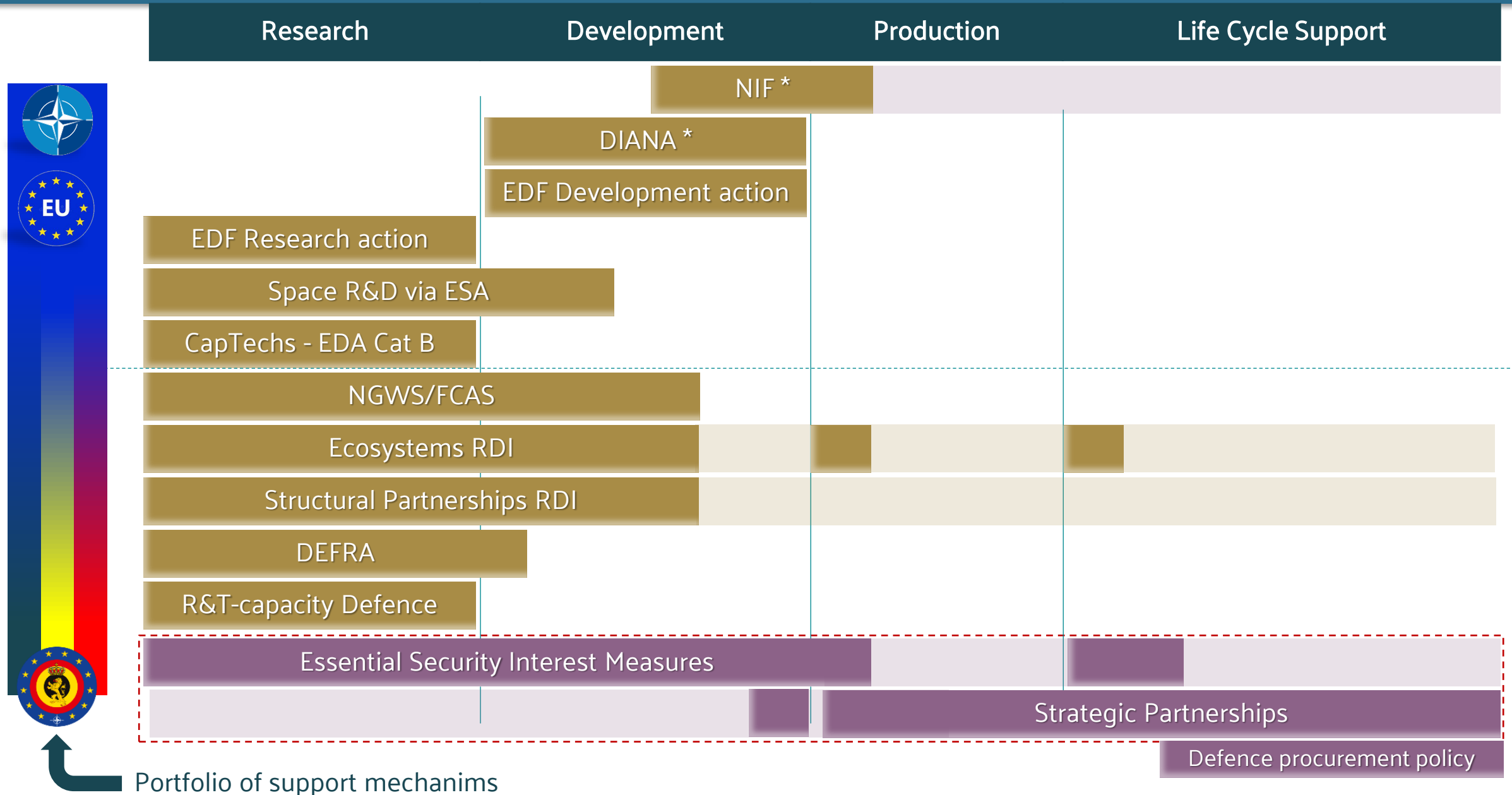
- R&T : PESCO commitment for activities in the Research Window (2% of defence effort)

Military Program Law

- Support to DTIB : % of the defence effort
- Major projects: participation in major development projects, % of defence effort



Federal toolbox – portfolio support mechanism



* DIANA / NIF cofinanced by Flanders (28%) , Wallonia (42%) and Defence (30%)

The background of the slide is a seascape viewed through the lens of a pair of binoculars. The lens is dark, and the view through it shows a blue sky with some clouds and a blue sea with small waves. The horizon line is visible in the middle of the frame.

From policy to reality

Focus on Maritime Security



- Make Belgium a reference in the field of MCM, and to support the Belgian Navy with innovative solutions.
- Grant Capture – EDF, Horizon Europe, ...
- Through life development MCMV capability



Ongoing European Defence Fund projects

20

MIRICLE - Mine Risk Clearance for Europe (Be lead)

- *Naval Group Belgium, DotOcean, ECA, Space Applications, VLIZ*



13. Naval combat



14. Underwater warfare

22

EUROGUARD - Medium-size semi-autonomous surface vessel

- *DotOcean; NGB*

E-NACSOS - Naval Collaborative Surveillance

- *NGB*

SWAT-SHOAL - Underwater manned-unmanned teaming and swarms

- *NGB*

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E=MCM - Mine counter measures Capabilities (Be lead)

- *NGB, dotOcean, Exail, SpaceApp, VLIZ, RMA*

European Defence Fund



EDF CALLS FOR PROPOSALS 2024

DEVELOPING TOMORROW'S DEFENCE CAPABILITIES

8 calls
€1.1 billion budget

24

	13. Naval combat	• Functional smart system-of-systems under an integral survivability approach for future naval platforms (D)	45 mio€
	14. Underwater warfare	• Secured and adaptive underwater communications for UUSs (R) • Autonomous heavy minesweeping system (D)	54 mio€

Defence Research Action - Ongoing

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Dep5GforRNAV - Deployable 5G networks for advanced naval applications

- *IMEC, Citymesh*

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AHOI - Adaptive Human Operator Interaction with Autonomous Systems

- *University of Antwerp - Product development, IMEC - IDLab, MAHI, Antwerp Maritime Academy*

SIREN - Ship Intel foR the BELgian Navy

- *e-BO Enterprises Product Management, OIP Sensor Systems, imec / SAT, RMA / CISS*

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MARISPEC – continuous and autonomous UAS monitoring of offshore infrastructure

- *University of Antwerp, DronMATrix, Xenics*

AQUA-MESH – continuous communication and sensing with dynamic underwater swarms

- *IMEC, uWare Technologies, ULB*

NAV-ALERT – Monitor and assess the alertness and stress levels of naval crew

- *IMEC, Bainisha, Magicview, ePoint*

SAILS - autonomous integrated landing system for UAS for naval domain

- *SABCA, Agilica, RMA*

Defence Research Action - 2025

Call for proposals in specific themes, R&T proposals up to TRL 6 with a 2 to 4 year duration

Partnerships: Triple helix collaborative approach between government, industry and academia

Timing: Yearly call published 4th quarter X, evaluation X+1, contract award by end of year X+1,

Budget 2025: 20 Mio€

Call 2025: 8 themes + 1 open call for defence related research

- Sensor Technologies
- Critical Maritime Infrastructure
- Open Call for defence-relevant research

Information: www.belspo.be/belspo/defra



inno4def.be



What's happening Our challenge How do we tackle it Running projects

Join community

Share your idea

INNOVATION FOR DEFENCE Defence Innovation, our duty!

Research, development and innovation play a crucial role in Belgian Defence's development, fostering progress not only in security and defence but also driving economic growth, reinforcing our technological base and providing promising prospects for individuals. This strengthens the Defence-Nation link and positions Belgian Defence competitively amidst geopolitical uncertainties and potential worldwide security threats.

Who are we?

What's our challenge?

How do we tackle it?

Hackathons

Share Your Idea

How do we tackle it Running projects

Join community

Share your idea



Idea submission form

★ Welcome to the Innovation Idea Submission Form! ★

Introduction: Innovation is the driving force at Innovation for Defence. Your input is invaluable for progress, whether you're an internal team member or an external visionary. We strongly believe in the boundless nature of innovation, welcoming diverse perspectives to fuel our creative engine.

About the Form: Our innovation idea submission form serves as a conduit for your visionary concepts to create tangible real-world impacts, regardless of your experience level in innovation. The provided references can provide you some guidance for the submission. Explore impactful submissions for inspiration, and review examples that don't align with our objectives.

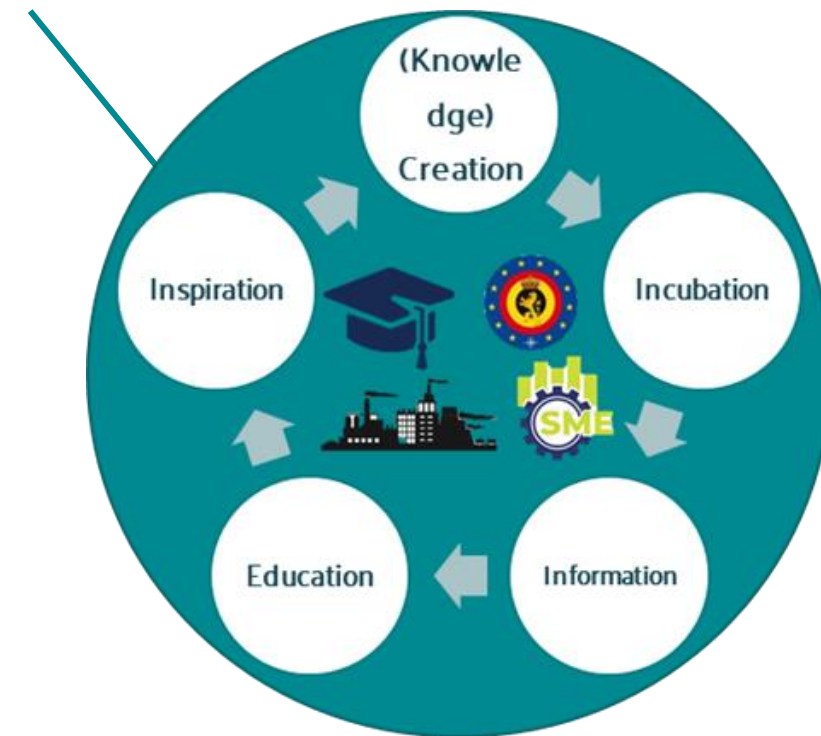
What We're Looking For: We're in search of ideas that challenge conventions and offer meaningful solutions. To stand out, invest in researching your idea's alignment with real-world context and visualize its transformation into reality, including resources, timelines, and partnerships. Your idea has the potential to be a game-changer, so dream big and think practically.

15-17 March 2024

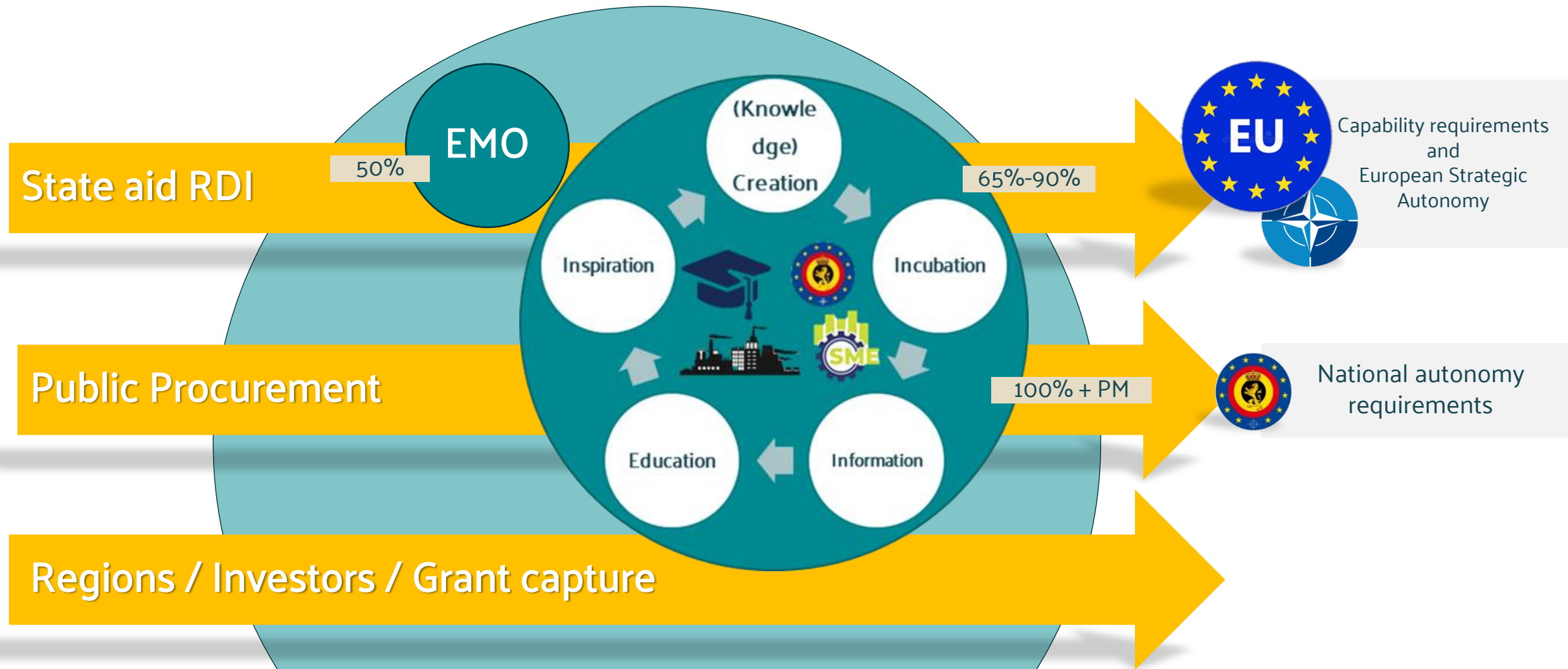
Actively recruiting

Ecosystems for research, development and innovation

- Ecosystems activities to create sustainable value chain
- Theme specific
- Pilot project 2024/2025
 - Protection Critical Maritime Infrastructure
- Linkup with existing ecosystems
- Financial support
 - Operating cost Ecosystem Management Organisation
 - Access to funding for RTDI activities

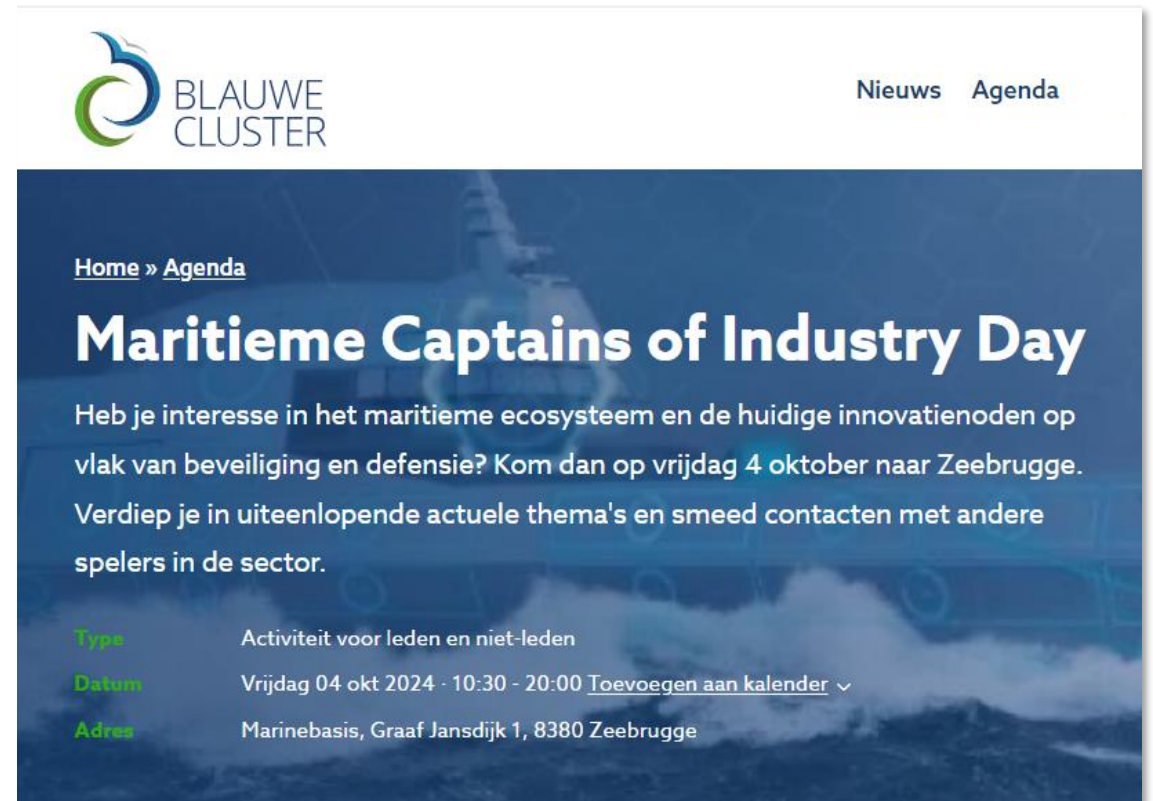


Ecosystems for research, development and innovation



RDI Ecosystem - Protection Critical Maritime Infrastructure

- Feasibility Study 2024/mid 2025
 - Political approval process started
- Deliverables
 - Vision, Strategy, Action plan
 - Stakeholders, commitment
 - Governance
 - 5-year funding plan (OC, RTDI)



The screenshot shows the website of the Blauwe Cluster. At the top, there is a logo for 'BLAUWE CLUSTER' and navigation links for 'Nieuws' and 'Agenda'. The main heading is 'Maritieme Captains of Industry Day'. Below this, a paragraph invites interest in the maritime ecosystem and innovation nodes, specifically mentioning security and defense, and encourages attendance on Friday, October 4th, in Zeebrugge. It also mentions the opportunity to discuss current themes and meet other players in the sector. At the bottom, there is a table with details about the event.

Type	Activiteit voor leden en niet-leden
Datum	Vrijdag 04 okt 2024 - 10:30 - 20:00 Toevoegen aan kalender ▾
Adres	Marinebasis, Graaf Jansdijk 1, 8380 Zeebrugge

Captains of industry

Opportunity is calling.
Will you answer?





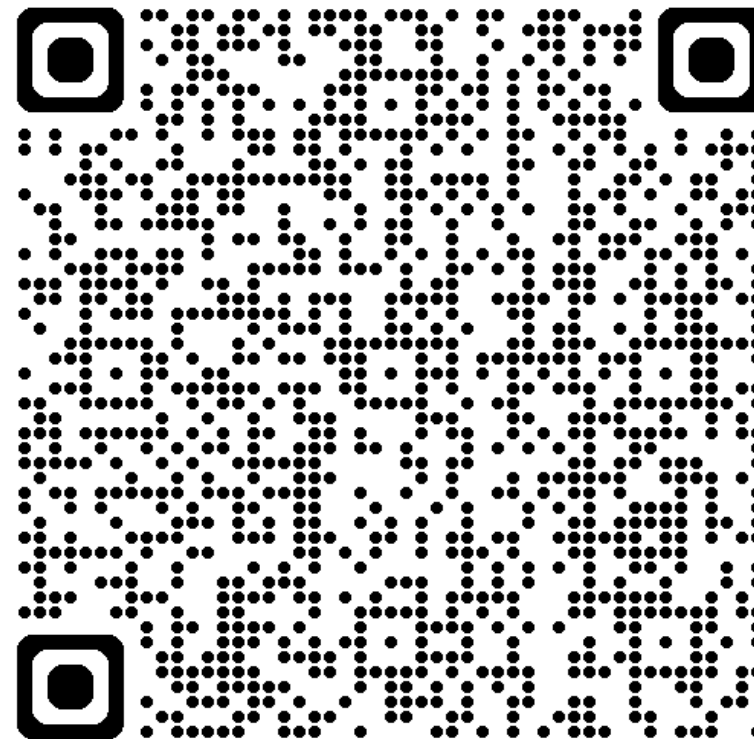
Participate in our Survey on the Belgian Defence and Security-related Technological and Industrial Base (BE-DSTIB)

Belgian Defence is conducting a **12-minute survey** to gather insights for an aggregate impact analysis of the BE-D(S)TIB. We would greatly appreciate your participation!

After the survey, you will receive **exclusive access** to a **dashboard** with some direct insights.

You can access more info and the survey via the **Belgian Royal Higher Institute for Defence*** (scan the QR-code or type in the link below).

At the end of the survey, you can **choose to opt-in** to share the data with Agoria-BSI and/or with a POC at (one of) the regions responsible for supporting the D(S)TIB.



<https://www.defence-institute.be/en/defence-industry-and-research-strategy/> → Survey BE-DSTIB
(the deadline has been extended)