The Preparatory Action on Defence Research

introducing the European Defence Fund

Infoday & Brokerage Event
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Unit Defence 2

Does not represent an official legal opinion of the European Commission
POLICY CONTEXT:
EUROPEAN DEFENCE FUND
Challenges

Security Threats

- To our borders
- Increasing complexity – hybrid

Markets & Industry

- Fragmented
- Rapidly evolving – new sources of innovation
- Increasing global competition
**Fragmentation ...**

<table>
<thead>
<tr>
<th>Defence Expenditure</th>
<th>EU-28</th>
<th>UNITED STATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total amount</td>
<td>€ 227 billion</td>
<td>€ 545 billion</td>
</tr>
<tr>
<td>% of GDP</td>
<td>1.34</td>
<td>3.3</td>
</tr>
<tr>
<td>Investment per Soldier</td>
<td>€ 27,639</td>
<td>€ 108,322</td>
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</tbody>
</table>

**Duplication of Systems in Use**

<table>
<thead>
<tr>
<th></th>
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<th>UNITED STATES</th>
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</thead>
<tbody>
<tr>
<td>Number of types of weapon systems*</td>
<td>178</td>
<td>30</td>
</tr>
<tr>
<td>Main battle tanks</td>
<td>17</td>
<td>1</td>
</tr>
<tr>
<td>Destroyers/frigates</td>
<td>29</td>
<td>4</td>
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<tr>
<td>Fighter planes</td>
<td>20</td>
<td>6</td>
</tr>
</tbody>
</table>

* Number of types of weapon systems for selected weapon systems categories

Source: NATO, International Institute for Strategic Studies, SIPRI

... the case for greater cooperation on defence
European Defence Fund

Policy Context

European Defence Fund

Research Window

- Research
  - EU funding

Preparatory Action on Defence Research
European Defence Research Programme

Capability Window

Development
- Pooling of national contributions
- EU co-financing

Acquisition
- Practical support by European Commission

European Defence Industrial Development Programme

COM(2017)295
European Defence Fund

<table>
<thead>
<tr>
<th></th>
<th>UNTIL 2020</th>
<th>POST - 2020</th>
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<tbody>
<tr>
<td><strong>RESEARCH</strong></td>
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<tr>
<td>Fully and directly funded from EU budget</td>
<td><strong>PADR!!</strong> €90 million total</td>
<td>€500 million*/ year</td>
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<tr>
<td><strong>DEVELOPMENT</strong></td>
<td>€2 billion total</td>
<td>€4 billion*/ year</td>
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<tr>
<td>Member States budget at least 80%</td>
<td>€500 million total</td>
<td>€1 billion*/ year</td>
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<tr>
<td>Co-financing from EU budget up to 20%</td>
<td>€5.5 billion*/ year</td>
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* Budget expectations per year

- All budgets are proposals!
- Investment decisions should be based on defence capability priorities agreed by the **Member States**
How to try something new at EU level?

- General principle: no legal framework – no money!
- Three exceptions for testing new actions:
  - Pilot Project: experiment to test the feasibility and usefulness of an action (max 2 year duration)
  - Preparatory Action: prepare for a proposal for a new legal framework (max 3 year duration – max EUR 100 million per action)
  - Propose new legislation: used for the development programme
PILOT PROJECT ON DEFENCE RESEARCH
Three topics – three projects

- Unmanned Heterogeneous Swarm of Sensor Platforms
  **EuroSWARM**
- Inside Building Awareness and Navigation for Urban Warfare
  **SPIDER**
- Standardisation of Remotely Piloted Aircraft System (RPAS) Detect and Avoid
  **TRAWA**
PREPARATORY ACTION ON DEFENCE RESEARCH
PADR Objectives

- Demonstrate and assess added-value of EU supported defence R&T
- Results should foster further cooperation between Member States and between EU defence industries
- Prepare for a basic act to launch a substantial defence research programme from 2021 onwards
PADR Scale and Scope

- Duration: 3 years – 2017-2019
- Requested total budget: EUR 90 million, subject to yearly decisions
- 2017 Budget: EUR 25 million APPROVED!!
- 2018 Budget: EUR 40 million APPROVED!!
- Bulk of the PADR budget to set-up a small defence R&T programme to prepare and test mechanisms to deliver cooperative defence research activities
PADR Modalities (1/2)

- **Horizon 2020 "look & feel"** as close as possible but adapted to specificities of the defence sector & Financial Regulations
- Mainly **GRANT-based scheme** (research actions – coordination and support actions); procurement limited to studies
- Participation: legal entities established in Member States or Norway **only**
- Evaluation based on **excellence** organised by EDA assisted by independent experts, validated by national authorities
PADR Modalities (2/2)

• Funding: **100%** direct eligible costs + indirect costs (flat rate of **25%** of direct eligible costs excluding direct eligible costs for subcontracting)

• Personnel costs can be declared as unit costs (if this is the beneficiary's usual accounting practice)

• EU funding can only be used for R&T activities related to defence technologies, products and systems, and **not to fund military operations**

• IPR: **results owned by participants**; measures to inform national authorities on the outcome of the projects
IMPORTANT NOTICE

Horizon 2020 regulation has not changed with the launch of the Preparatory Action on Defence Research
### Structure of PADR R&T Programme

<table>
<thead>
<tr>
<th></th>
<th>C⁴ISR</th>
<th>Effects</th>
<th>Force Protection and soldier systems</th>
<th>Unmanned Platforms</th>
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<tbody>
<tr>
<td>Defence Research</td>
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<tr>
<td>Demonstrator Project</td>
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<td>Critical Defence</td>
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<td>Technologies</td>
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<td>Future and Emerging</td>
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<td>Disruptive technologies</td>
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<td>Standardisation and</td>
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<td><strong>Strategic Technology</strong></td>
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<td><strong>Foresight Modalities</strong></td>
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PADR WORKPROGRAMMES
# PADR Work Programmes

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**Strategic Technology Foresight Modalities**
Call – Unmanned platforms
Technological demonstrator for enhanced situational awareness in a naval environment → 1 project OCEAN 2020

Call – Force Protection and Soldier Systems
Force protection and advanced soldier systems beyond current programmes → 3 projects GOSSRA, VESTLIFE, ACAMS II

Call – Strategic Technology Foresight
The European Defence Research Runway → 1 project PYTHIA
Outline 2018 PADR Work Programme

FOCUS

Critical Defence Technologies

Strategic autonomy

Security of supply

(including no end-user restrictions)
Call – Electronic Design Technologies for Defence Applications
   European high-performance, trustable (re)configurable system-on-a-chip or system-in-package for defence applications

Call – Effects
   Towards a European high power laser effector

Call – Strategic Technology Foresight
   The European Defence Research Runway – part II
Calls available on Participant Portal

Calls for Proposals

Pilot Projects and Preparatory Actions

Pilot projects (P) and Preparatory Actions (PA) introduce new initiatives that might turn into standing EU funding programmes. A Pilot Project is an initiative of an experimental nature designed to test the feasibility of an action and its usefulness and lasts not more than two years. A Preparatory Action—normally the successor of a successful pilot project on the same matter—is designed to prepare new actions like EU policies, legislation, programmes etc. with funding for not more than three years. For more information on the Pilot Projects and Preparatory Actions see the annual report on pilot projects and preparatory actions.
CALL FOR EXPERTS
Call for Experts

- Experts need to be validated by national authorities
- Experts need personal security clearance (CONFIDENTIEL UE/EU CONFIDENTIAL or equivalent)

EUROPEAN DEFENCE RESEARCH PROGRAMME
UNDER THE EUROPEAN DEFENCE FUND

COM(2017)295
EDRP

• Multiannual Financial Framework post 2020
• Estimated budget: EUR 500 million per year
• Adoption of the proposal, accompanied by an impact assessment, in 2018
• Focus on targeted research activities supporting the development of defence-related products and innovative technologies.
• Programme should be capability-driven and focus on critical defence technologies as well as exploratory and disruptive research with the potential to strengthen the technological leadership of the European defence industry.
EDRP : Points to note

- **Legal issues:** precise relationship with the successor to Horizon 2020 needs to be determined
- **Financing:** separate from and not affect the civilian research programme
- **Priorities-setting:** Member States will identify, with the help of the EDA, the defence capability priorities and the R&T priorities. The Commission will take these into account in the EDRP.
- **Governance:** tailor made governance structure, reflecting the specificities of the defence sector; Commission, EDA, Member States, Industry.
- **Modalities:** EDRP should attract broad participation of different actors, including SMEs.
THANK YOU FOR YOUR ATTENTION

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