The European Defence Fund

Featuring the Preparatory Action on Defence Research

Infoday & Brokerage Event
11 April 2019

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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></th>
<th>EU-28</th>
<th>UNITED STATES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Defence Expenditure</strong></td>
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<td></td>
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<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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<tr>
<td><strong>Duplication of Systems in Use</strong></td>
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<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>
</tr>
<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

1. RESEARCH
   - up to 100% in grants, prizes and procurement

2. DEVELOPMENT
   - studies and design: 100%
   - prototype development: 20%
   - testing, qualifications, certification: 80%
   - bonuses available for innovative projects involving SMEs and midcaps for PESCO projects
   - projects need to contribute to priorities agreed in the framework of CFSP or NATO

3. ACQUISITION
   - no EU support but Member States can jointly decide to acquire capabilities.
   - Commission can offer practical support

EC press release: IP/19/1717
Main pillar of an ambitious European Defence Union

Source: European Political Strategy Centre
• 2021-2027 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 (cfr. EDIDP)
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!!
- 2019 Budget: EUR 25 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
- Participation: legal entities established in Member States or Norway **only**
- Mainly **GRANT-based scheme** (research actions – coordination and support actions); procurement limited to studies
- IPR: **results owned by participants**; measures to inform national authorities on the outcome of the projects
PADR Modalities (2/2)

- Evaluation based on **excellence** organised by EDA assisted by independent experts, validated by national authorities
- 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**
IMPORTANT NOTICE

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

<table>
<thead>
<tr>
<th>Defence Research Demonstrator Project</th>
<th>C^4ISR</th>
<th>Effects</th>
<th>Force Protection and soldier systems</th>
<th>Unmanned Platforms</th>
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<tbody>
<tr>
<td>Critical Defence Technologies</td>
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<tr>
<td>Future and Emerging Disruptive technologies</td>
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<td>Standardisation and Interoperability</td>
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- **Strategic Technology Foresight Modalities**
# Calls of PADR Work Programme

<table>
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<tr>
<th>Year</th>
<th>C^4ISR</th>
<th>Effects</th>
<th>Force Protection and soldier systems</th>
<th>Unmanned Platforms</th>
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<tbody>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td></td>
<td>1 project</td>
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<tr>
<td>2018</td>
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<td></td>
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<tr>
<td>2019</td>
<td></td>
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- **Defence Research Demonstrator Project**: 1 project
- **Critical Defence Technologies**: 1 project
- **Future and Emerging Disruptive technologies**: 2 topics – up to 8 projects
- **Standardisation and Interoperability**: 3 projects, 1 project
- **Total projects**: 1 project

1 project
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
Outcome 2018
Work Programme

Call – Electronic Design Technologies for Defence Applications

European high-performance, trustable (re)configurable system-on-a-chip or system-in-package for defence applications
→ 1 project

Call – Effects

Towards a European high power laser effector
→ 1 project

Call – Strategic Technology Foresight

The European Defence Research Runway – part II
→ 1 project

Commission Decision C(2018)1383
Outline 2019 PADR Work Programme

Critical Defence Technologies
Strategic autonomy - Security of supply

Future and Emerging Disruptive Technologies

Interoperability/standardisation
Outline 2019 PADR Work Programme

Call – Electromagnetic Spectrum Dominance
Combined radar, communications, and electronic warfare functions based on European Active Electronically Scanned Arrays for military applications
→ not more than 1 project to be funded

Call – Future Disruptive Defence Technologies
Challenging the future (no predefined topics)
Emerging game changers (5 predefined topics)

Call – Unmanned systems
Interoperability standards for military unmanned systems
Calls available on the Funding and Tender opportunities Portal

Pilot Projects and Preparatory Actions (PPPA)
CALL FOR EXPERTS
Call for Experts

Experts need to be validated by national authorities
Experts need appropriate personal security clearance

THANK YOU FOR YOUR ATTENTION

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