

# The Preparatory Action on Defence Research

# introducing the European Defence Fund

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# POLICY CONTEXT: EUROPEAN DEFENCE FUND



## **Challenges**

#### Security Threats

- To our borders
- Increasing complexity hybrid

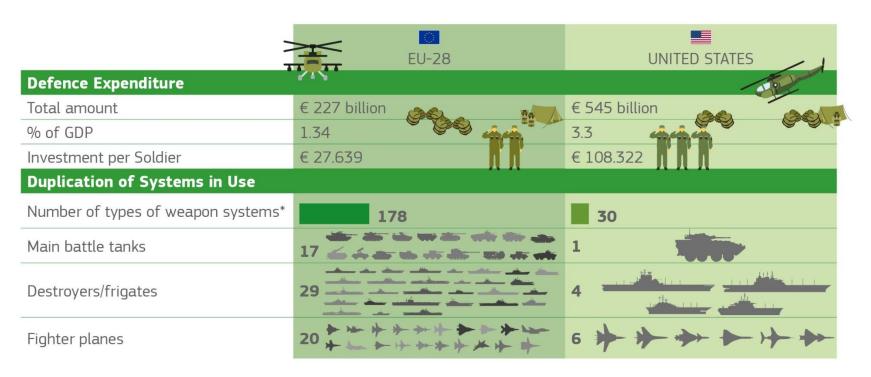
#### Markets & Industry

- Fragmented
- Rapidly evolving new sources of innovation
- Increasing global competition





## Fragmentation ...



<sup>\*</sup> 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**

**Programme** 



#### **Capability Window**





# **European Defence Fund**

		UNTIL 2020	POST - 2020
<b>₹</b>	RESEARCH Fully and directly funded from EU budget  PADR!!	€90 million total	€500 million'/ year
ô,	<b>DEVELOPMENT</b> Member States budget at least 80%	€2 billion total	€4 billion* / year
	Co-financing from EU budget up to 20%	€500 million total	€1 billion* / year
	* Budget expectations per year		€5.5 billion* / 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



# 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**

	C4ISR	Effects	Force Protection and soldier systems	Unmanned Platforms
Defence Research Demonstrator Project				
Critical Defence Technologies				
Future and Emerging Disruptive technologies				
Standardisation and Interoperability				

Strategic Technology Foresight Modalities







# PADR WORKPROGRAMMES





## **PADR Work Programmes**

	C4ISR	Effects	Force Protection and soldier systems	Unmanned Platforms
Defence Research Demonstrator Project				2017
Critical Defence Technologies	2018	2018		
Future and Emerging Disruptive technologies			2017	
Standardisation and Interoperability				

Strategic Technology Foresight Modalities



#### **Call –Unmanned platforms**

Technological demonstrator for enhanced situational awareness in a naval environment  $\rightarrow$  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)





# Outline 2018 PADR Work Programme

# Call – Electronic Design Technologies for Defence Applications

European high-performance, trustable (re)configurable systemon-a-chip or system-in-package for defence applications

#### Call - Effects

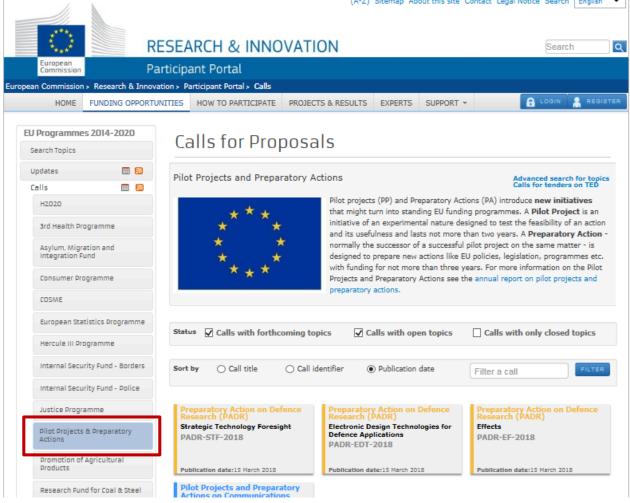
Towards a European high power laser effector

Call – Strategic Technology Foresight
The European Defence Research Runway – part II



# Work Programmes

**Calls available on Participant Portal** 



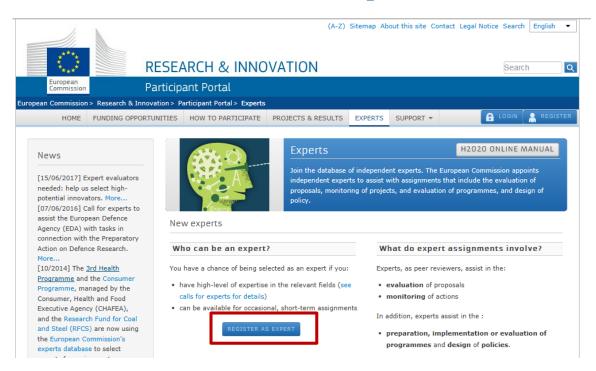


# **CALL FOR EXPERTS**



# 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





#### **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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