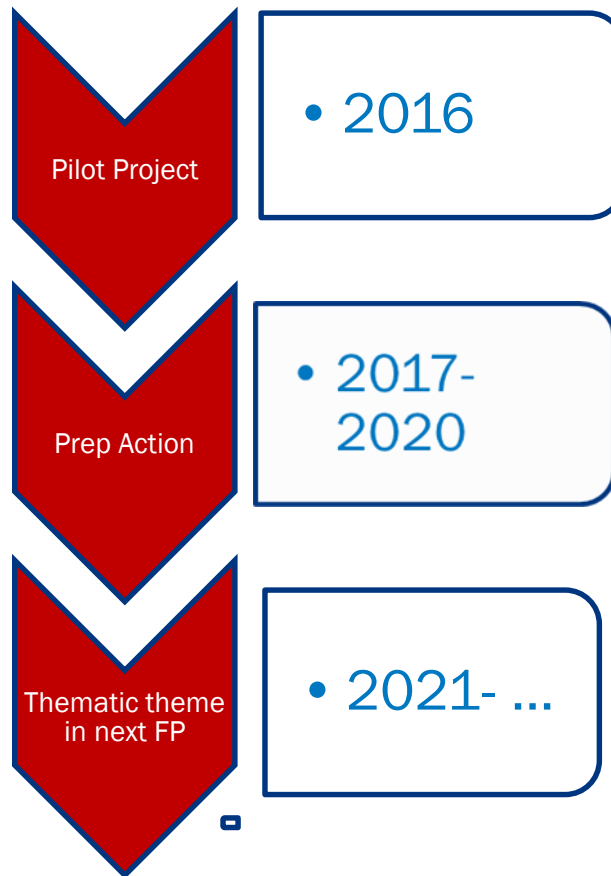




## **Pilot Project and Preparatory Action**

# Timeline of PP and PA (as a reminder)



## Pilot Project: activities of past few months

- Delegation Agreement EDA-Commission signed on 16 November 2015
- EU Budget: 925,000€ (2015) + 500,000€ (2016)
- Launch of Call for Proposals: 23 March 2016.
- Deadline proposals: 23 June 2016
- Evaluation in summer 2016

## Pilot Project: 3 topics & budget

- Unmanned Heterogeneous Swarm of sensor platforms 434,625€
- Inside Building Awareness and Navigation for Urban Warfare 475,000€
- Standardisation of Remotely Piloted Aircraft System (RPAS) Detect and Avoid 434,625€

## Pilot Project: current activities

- 23 September: applicants informed about outcome of evaluation
- Signature 3 grant agreements on 28 October 2016
- 2 projects for a duration of 12 months; one project duration of 18 months.
- Kick-off: November 2016

# Preparatory Action

- Start 2017
- Will last 3 years – end in 2019
- Budget Commission issued budget proposal on 27 June 2016: 25 million for Year 1 (90 million€ for 3 years)
- Aim: defence research programme in MFF 2021-2027
- Test. For example: the Special Report
- ‘As If’ Programme Committee (AIPC): Member States, Commission and EDA as observer: 6 meetings

# Preparatory Action: next steps

- **November 2016:** Finalisation of the Scoping Paper and Rules of Participation and Agreement on work-programme
- **December 2016:** Adoption of 2017 budget + EC Communication on PA
- **Mid-2017:** Launch of 1<sup>st</sup> Call (after signature of delegation agreement)
- **Late 2017:** Signature of 1<sup>st</sup> grant agreement(s)

# EDA process for the Preparatory Action

- Workshops organised to consult MS
- Assessment of topics (from MS and industry)
- Clustering and Prioritization exercise
- Result: - narrowing down the topics
  - merging topics + integration of topics in larger topic
  - descriptions tailored
- Consolidated views of MS sent to the Commission for Technology Demonstrators (TD), Critical Defence Technologies (CDT), Disruptive Technologies (DT) and Interoperability, Complementarity and Standardisation (ICS)

Proposed options do not prejudice the final selection to be made by the ‘as if’ Programme Committee

# Clusters used for the various types of projects

## Technology demonstrator

- Information superiority, cyber defence and sensor technologies
- **Maritime capabilities and Autonomous platforms technologies and RPAS**
- Logistics and energy
- Force protection and soldier systems
- Offensive weapons and major platforms

## Critical Defence Technologies

- Information superiority and cyber defence
- **Sensor technologies** and components
- Logistics and energy
- Force protection and soldier systems
- Offensive weapons and major platforms

## Disruptive Technologies and Interoperability, Complementarity and Standardisation

- Autonomous platforms
- **C4ISR**
- Force Protection and Soldier systems
- Effects
- Transversal topics

# Consolidated MS proposals for TD topics

1. Cross-border Cyber Situational defence awareness
2. Maritime Surveillance RPAS: a federative programme with projects on data exchange and fusion, sensor payloads, the platform (in a manned/unmanned mix), the integration of the platform in a C2 environment and various cyber defence aspects
3. Autonomous convoying of vehicles
4. Soldier system with a focus on an Open Soldier Reference Architecture, and integrating and the testing of new technologies
5. Counter hostile drones, including the effectors to destroy them such as lasers

# Consolidated MS proposals for CDT topics (1/2)

1. Coalition Cyber Situational Awareness (area of interest; topic to be defined in greater detail)
2. Combined use of GNSS Systems (area of interest; potential topic to be defined in greater detail)
3. Advanced digital high performance System on Chip and in Package processing technologies for secure, safe and reliable defence applications including technologies such as reprogrammable FPGAs
4. Demonstration of next generation European key enabling sensor components technologies for military applications in radar, communications and electronic protection/warfare.
5. Use of Active Electronic Scanned Arrays (AESA) for Electronic Warfare (EW) applications
6. Cognitive Radar Platform

# Consolidated MS proposals for CDT topics (2/2)

- 7. Biological Standoff Detectors
- 8. Optimized decontamination methods and procedures in urban areas
- 9. Procedures and new technologies for CBR-IED disablement.
- 10. Advanced holistic protective equipment (including blast, impact, C-agents, and camouflage)

**11. A.** Missile fuels, components and materials

OR:

**11. B.** Modularity and Precision for munition: Precision Guided Ammunition (PGA) aims to achieve precision effects.

# Consolidated MS proposals for ICS topics

## Autonomous platforms

1. Interoperability standards for unmanned ground systems

## C4ISR

2. Combined use of GNSS systems
3. Kept in mind: Standards in Information Security and Cyber Defence

## Force Protection and Soldier systems

4. Standards for CBRN defence equipment
5. Open Reference Architecture for Military Land Vehicles and Mission Systems

## Effects

6. Architecture for NDOF Distributed Simulation for Ammunition Qualification

## Transversal topics

7. Certification of 3D Printing

# Consolidated MS proposals for DT topics

## Autonomous platforms

1. Autonomous multi-robot systems for surveillance and reconnaissance missions
2. Miniaturized multi-frequency conformal AESA antennas
3. Multifunction RF sensors for RPAS payloads
4. Next Generation IR Detector Components and Cameras

## C4ISR

5. Microwave Photonic components integration for Radar and Communication antennas
6. **Kept in mind:** High-speed/Quantum Computing with Military Cyber Implications

## Force Protection and Soldier Systems

7. Smart textiles
8. New Protection technologies for CBRN agents

## Effects

9. Nanoenergetic materials

## Transversal topics

10. High temperature composites for defence systems