



#InvestEUresearch

Horizon 2020 Work Programme for Research & Innovation 2018-2020

Secure Societies Work Programme 2018-2020 **2019 Call**

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Research and
Innovation

Outline

1. Policy context
2. Capability based Approach
3. Work Programme – Topics for 2019
 - **SECURITY call**
 - **DRS**: Disaster-Resilient Societies
 - **FCT**: Fight against Crime and Terrorism
 - **BES**: Borders and External Security
 - **GM**: General Matters (i.e. Networks, PCPs)
 - **PROTECTING INFRASTRUCTURE call**

POLICY CONTEXT



Policy Context

04/2015: European Agenda on Security defines the priority actions at EU level to ensure an effective EU response to security threats over the period 2015-2020

"Research and innovation is essential if the EU is to keep up-to-date with evolving security needs. Research can identify new security threats and their impacts on European societies. It also contributes to creating social trust in research-based new security policies and tools. Innovative solutions will help to mitigate security risks more effectively by drawing on knowledge, research and technology."

Policy Context

10/2016: new Commissioner for the Security Union, supported by a horizontal Task Force involving 30 different services in the Commission and the EEAS

Mission letter of Julian King as Commissioner for Security Union:

"During our mandate, I would like you to support the Commissioner for Migration, Home Affairs and Citizenship in the following tasks:

[...] **"Ensuring that EU-financed security research targets the needs of security practitioners and develops solutions to forthcoming security challenges [...]."**



Policy Context

12/2018 Seventeenth Progress Report towards an effective and genuine Security Union

Section on EU Security Research

‘EU security research is one of the building blocks of the Security Union enabling innovation in technologies and knowledge crucial for developing capabilities to address today's security challenges, anticipating tomorrow's threats and contributing to a more competitive European security industry.’

‘Given the particular nature of the security sector (in which the market is represented mainly by public authorities), appropriate uptake of research output can be guaranteed only if research is acknowledged as one of the building blocks of a wider capability development process bringing together policy-makers, practitioners, industry and academia. The close involvement of all stakeholders at an early stage is instrumental to identify capability gaps, and define capability priorities that can, when needed, trigger research requirements.’



The Challenge

The security research landscape

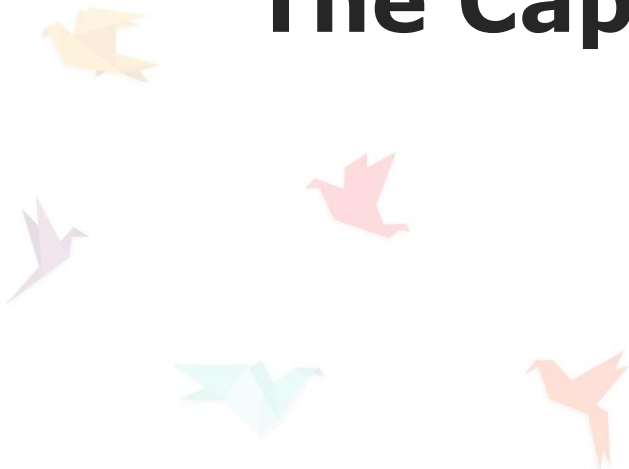
Notwithstanding the effort still
gap between research output and market uptake

- *highly fragmented and mostly institutional market*
- *the limits of existing funding schemes*
- *the misalignment between demand and supply*

Research is not a stand alone process

Research is part of a wider process:

The Capability Development Process



Capability Based Approach

Five main Actors:

- **Researchers**
- **Policy makers**
- **Practitioners**
- **Industry**
- **Citizens**

Capability Based Approach

Researchers

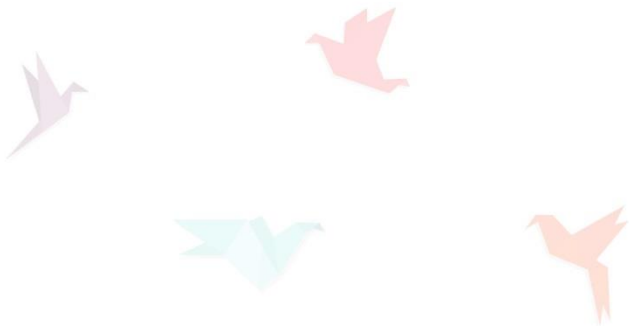
Make an idea become reality



Capability Based Approach

Policy makers

- *Define the policy objectives and provide the overall strategic direction*
- *Topics in the security research calls are supporting the implementation of the different policies in the different domains.*



Capability Based Approach

Practitioners

Define the operational requirements to ensure achievement of intended policy objective

Many topics in the security research calls foresee a compulsory participation of practitioners to

- *Enhance policy support and adherence to operational requirements*
- *Improve market uptake*
- *Increase Innovation dimension*
- *Reduce oversubscription*
- *Reduce duplications*

Capability Based Approach

Industry

- *a single and strong EU security market is fundamental to increase the competitiveness of the industrial base and the level of confidence in the security of supply for strategic technologies*
- *private and public sector to work hand in hand in developing a vision for tomorrow's security ecosystem*
- *Many topics in the security research calls foresee a compulsory participation of the private sector.*

Capability Based Approach

Citizens

- *All Calls have a "Human Factor" embedded within.*
- *A better integration of the societal dimension means more trust and resilience*
- *A better societal consideration into technological requirements means socially compatible solutions.*
- *Understanding of causes and societal roots of a an event and of human behavior (prevention).*

Capability Based Approach

Capability Development Cycle



Analysis of Needs



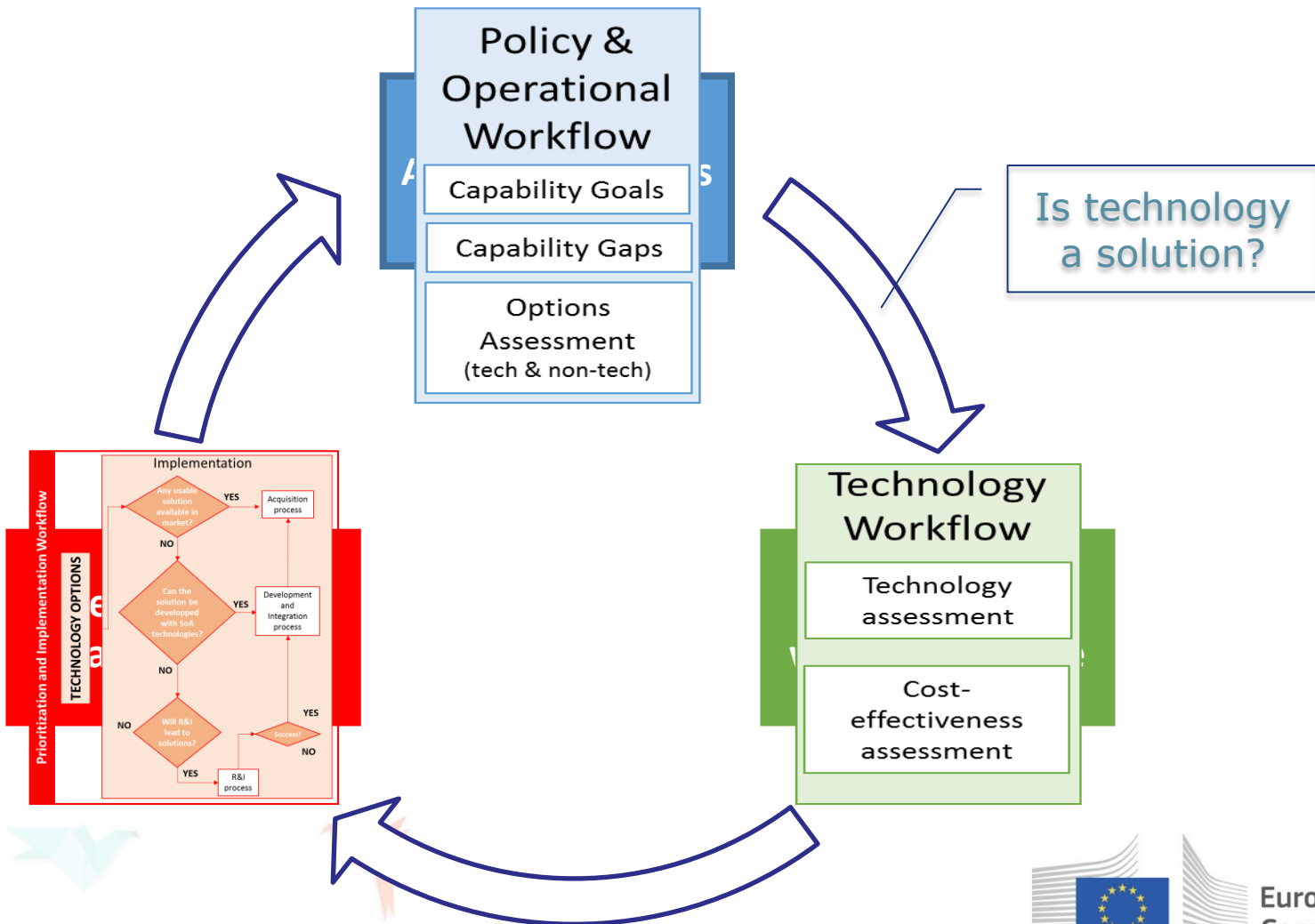
Assessment of
what is available



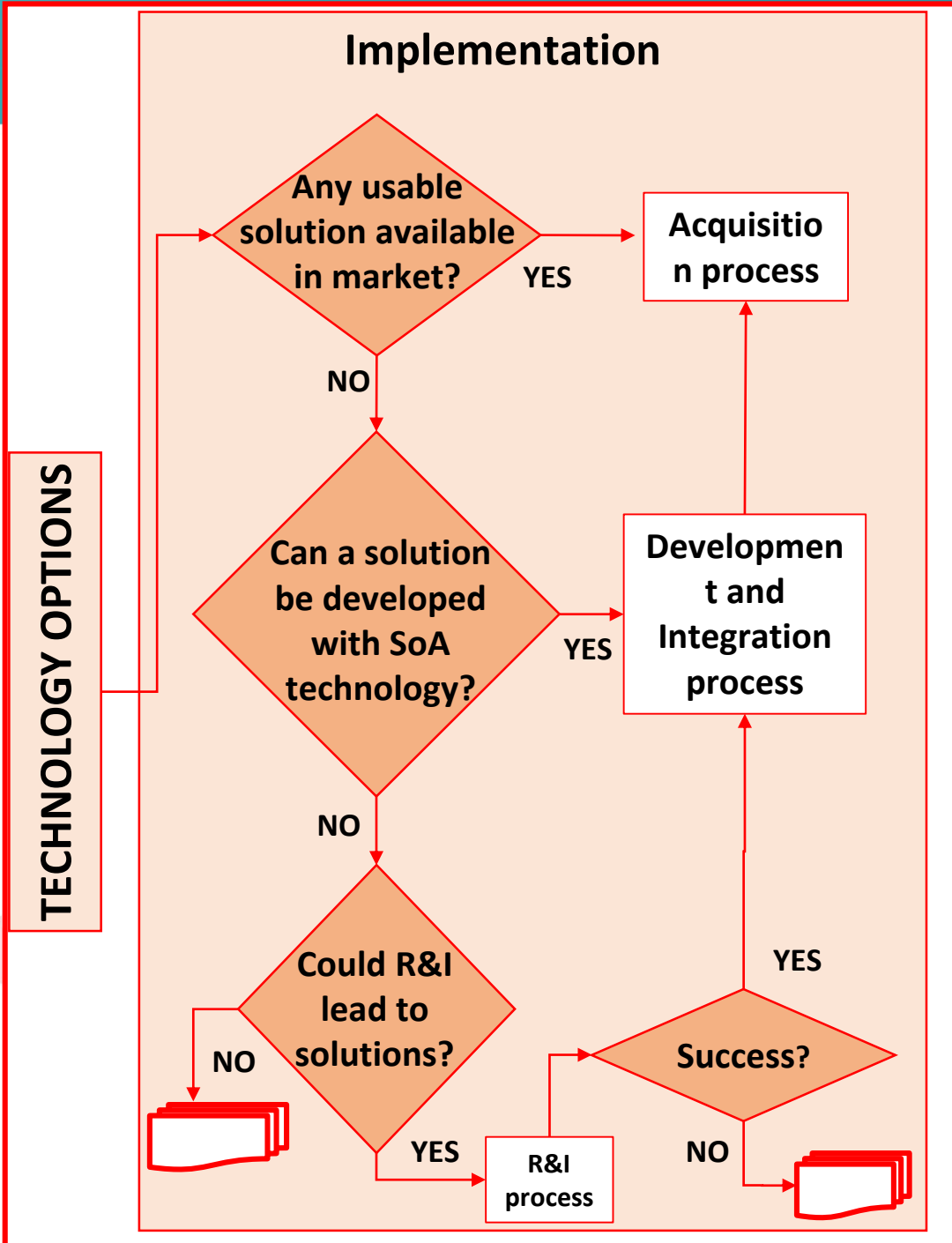
Research and
acquisition

Capability Based Approach

Capability Development Cycle



Prioritization and Implementation Workflow



SECURITY call



Main Policy Drivers

DISASTER-RESILIENT SOCIETIES

European Agenda on Security

Security Progress reports

CBRN Action Plan COM(2009) 273 final

CBRN E-risks COM(2014)247 final

EU Civil Protection Mechanism Decision 1313/2013

Serious Cross-border threats to health Decision 1082/2013

EU Climate Adaptation Strategy

FIGHT AGAINST CRIME AND TERRORISM

European Agenda on Security

Security Progress reports

**Council Conclusions of 06/2016
on the way forward in view of the creation of a European
Forensic Science Area**

Cybersecurity Package COM(2017)477

BORDER AND EXTERNAL SECURITY

European Agenda on Security

Security Progress reports

**European Border Surveillance System (EUROSUR - Regulation
No 1052/2013)**

Smart Borders legislative Initiative

New EBCG Proposal COM(2018) 631 final

GENERAL MATTERS

European Agenda on Security

Security Progress reports

The European Agenda on Security

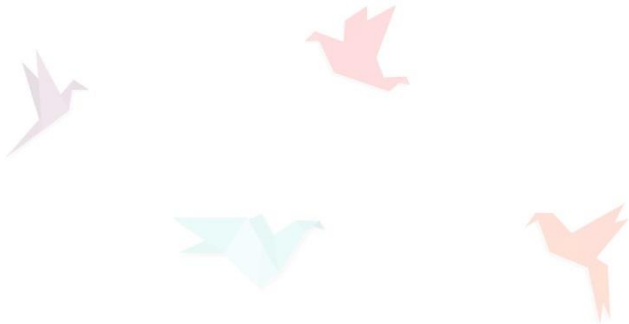
Mission letter of Julian King

DISASTER-RESILIENT SOCIETIES

- SU-DRS01-2018-**2019**-2020: Human factors, and social and societal, and organisational aspects for disaster-resilient societies
- SU-DRS02-2018-**2019**-2020: Technologies for first responders
 - Sub-topic 2: Innovation for rapid and accurate pathogens detection
 - Sub-topic Open
- SU-DRS03-2018-**2019**-2020: Pre-normative research and demonstration for disaster resilient societies
 - Sub-topic 2 – Pre-standardisation in crisis management (including natural hazard and CBRN-E emergencies)
- SU-DRS04-**2019**-2020: Chemical, biological, radiological and nuclear (CBRN) cluster
- SU-DRS05-**2019**: Demonstration of novel concepts for the management of pandemic crises

FIGHT AGAINST CRIME AND TERRORISM

- SU-FCT01-2018-**2019**-2020: Human factors, and social, societal, and organisational aspects to solve issues in fighting crime and terrorism
 - Sub-topic 2: Understanding the drivers of cybercriminality, and new methods to prevent, investigate and mitigate cybercriminal behaviour
 - Sub-topic: Open
- SU-FCT02-2018-**2019**-2020: Technologies to enhance the fight against crime and terrorism
 - Sub-topic 1: Trace qualification
 - Sub-topic: Open
- SU-FCT03-2018-**2019**-2020: Information and data stream management to fight against (cyber)crime and terrorism



BORDER AND EXTERNAL SECURITY

- SU-BES01-2018-**2019**-2020: Human factors and Social, societal and organisational aspects of border and external security
 - Sub-topic 2: Modelling, predicting and dealing with migration flows to avoid tension and violence.
 - Sub-topic: Open
 - **Eligibility conditions**
- SU-BES02-2018-**2019**-2020: Technologies to enhance border and external security
 - Sub-topic 3: Security on board passenger ships.
 - Sub-topic 4: Detecting threats in the steam of commerce without disrupting business.
 - Sub-topic: Open
- SU-BES03-2018-**2019**-2020: Demonstration of applied solutions to enhance border and external security
 - Sub-topic 2: New concepts for decision support and information systems.
 - Sub-topic Open

GENERAL MATTERS

SU-GM01-2018-**2019**-2020: Pan-European networks of practitioners and other actors in the field of security

a. [2019] Practitioners in the same discipline and from across Europe.

In 2019, proposals are invited in two specific areas of specialisation:

Protection of public figures

Handling of hybrid threats

SU-GM03-2018-**2019**-2020: Pre-commercial procurements of innovative solutions to enhance security



INFRASTRUCTURE call



Main policy drivers

Action Plan protection of public spaces COM(2017) 612

Critical Infrastructure Protection

- Directive 2008/114/EC – Identification and designation of EU Critical Infrastructure

- European Programme for CI Protection (COM (2006) 786, COM(2013) 318)

INFRASTRUCTURE call

SU-INFRA01-2018-**2019**-2020: Prevention, detection, response and mitigation of combined and cyber threats to critical infrastructure in Europe

- In 2018 and 2019 the following CI shall be addressed:

- **Water systems**
- **Energy infrastructure (Energy value chain, Gas networks, others)**
- **Transport infrastructure (Ports, Airports, others)**
- **Communication infrastructure**
- **Ground segments of space systems**
- **Health services**
- **E-Commerce and postal infrastructure**
- **Sensitive industrial sites and plants**
- **Financial services**

Non-exclusive approach

Check Participant Portal for areas covered in 2018!

- *Areas in red, covered in calls 2016 and 2017

- **Areas in black, not yet covered

SU-INFRA02-2019: Security for smart and safe cities

- Priorities rising from the EU Operators forum to be considered:
 - Underline the involvement of **operators** (e.g. mass events and entertainment, hospitality, shopping malls, sports and cultural venues, transport hubs and others).
 - Bring in the status of the implementation of the Action Plan (SU progress report December 2018):
 - Improved cooperation
 - Lessons learnt – Recommendations
 - Synergies with other EC funding instruments (UIA – ERDF)