



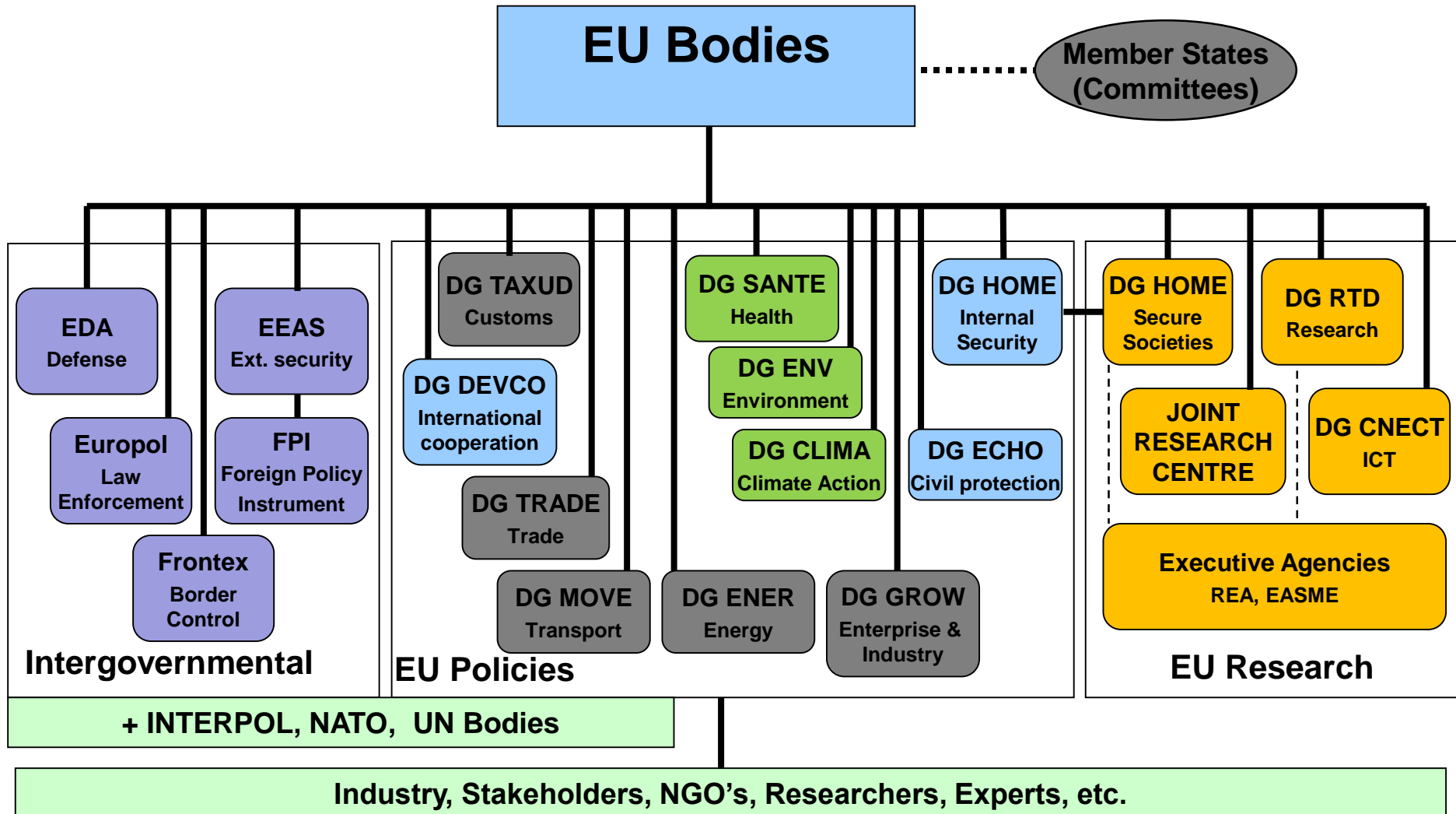
European
Commission

Horizon 2020 Secure Societies WP 2018

DRS call 2019

DG Migration and Home Affairs

Disaster Resilient Societies - A complex policy landscape





Disaster Resilient Society

DG HOME
Internal Security

COM(2009) 273 final
CBRN Action Plan
+ **COM(2014)247 final**
CBRN-E risks
+ **European Agenda on Security**

DG ECHO
Civil Protection

Decision 1313/2013
EU Civil Protection
Mechanism

Environmental threats

DG ENV
Environment

Decision 1386/2013
Environment Action
Programme
Directive 2012/18/EU
(Seveso III Directive)

Climate threats

DG CLIMA
Climate action

EU Climate Adaptation
Strategy

Health threats

DG SANTE
Consumer Health

Decision 1082/2013
Serious cross-border
threats to health

DG ENER
Energy

Regulation 347/2013
Tran-European Energy
Infrastructure
Directive 2009/7/EU
Safety of nuclear
installations

DG MOVE
Transport

Decision 661/2010
Tran-European Transport
Network

DG TAXUD
Customs

EU Custom policy for
supply chain security and
use of customs detection
technology for CBRN-E

International

DG DEVCO
International
cooperation

CBRN-E Centres of
Excellence

EEAS
Ext. security

Intergovernmental

+ UN Bodies, NATO

Nuclear non-proliferation treaty
Chemical Weapons Convention
Biological Weapons Convention

DG GROW
Enterprise & Industry

Security Industrial policy
COM(2012)417 final
Internal Security Strategy
COM(2010)673 final
European Agenda on Security

DG TRADE

Regulation 428/2009
Transit of dual use items

HORIZON
2020

EU Research

EDA
Defense

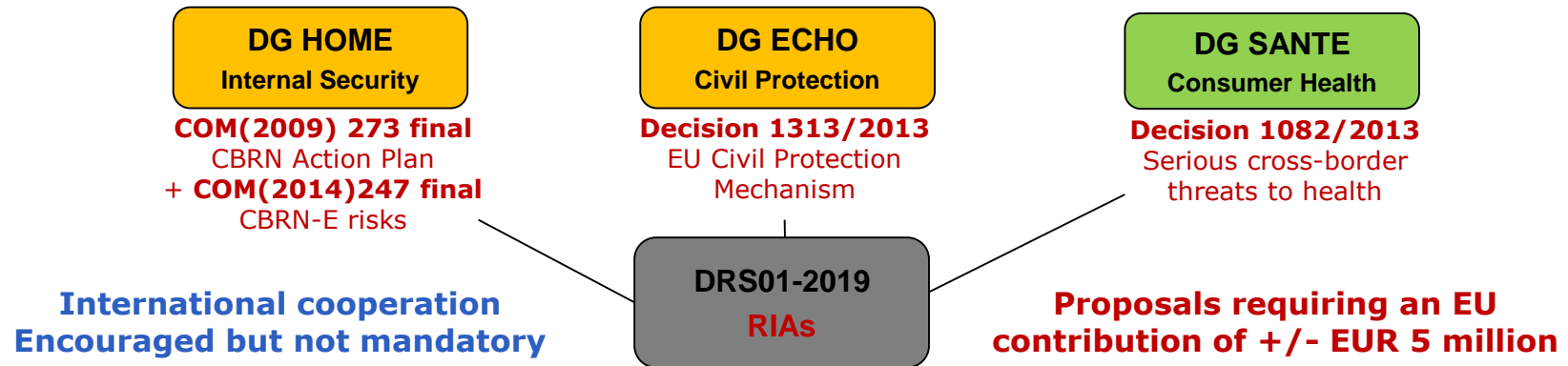
Joint Investment
Programme / EFC



2018-2020 DRS Call

Advancing innovation in the society at large, and among first responders, to reduce the loss of human life and to reduce environmental, economic and material damage from natural and man-made disasters, including from climate-related weather events, earthquakes and volcanic events, space weather events, industrial disasters, crime and terrorism threats.

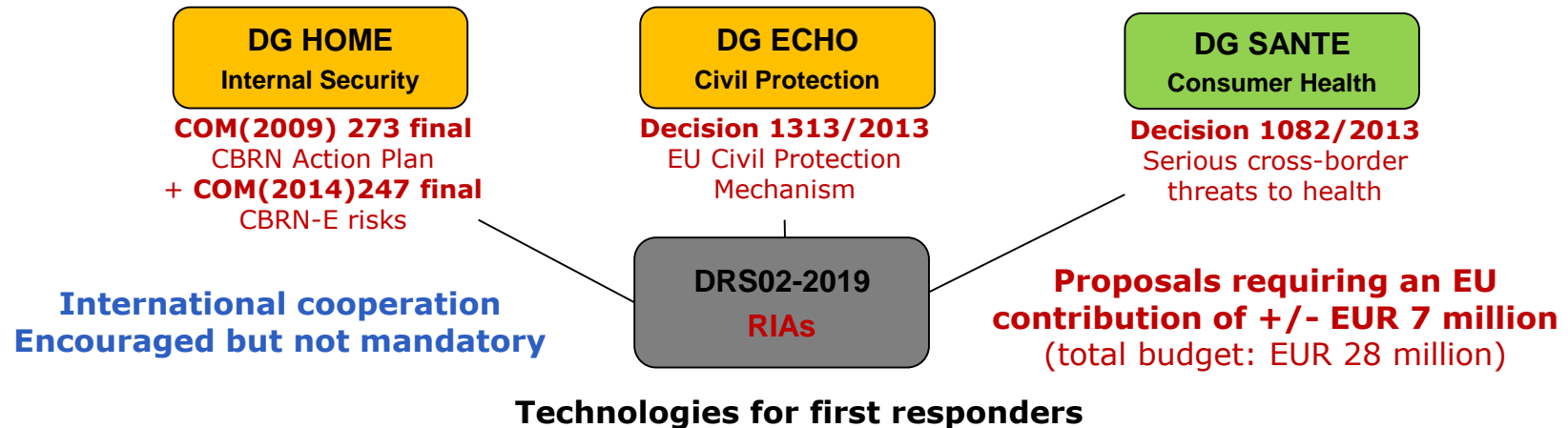
- **SU DRS01-2018-2019-2020:** Human factors, and social and societal, and organisational aspects for disaster-resilient societies
- **SU-DRS02-2018-2019-2020:** Technologies for first responders
- **SU-DRS03-2018-2019-2020:** Pre-normative research and demonstration for disaster resilient societies
- **SU-DRS04-2019-2020:** Chemical, biological, radiological and nuclear (CBRN) cluster
- **SU-DRS05-2019:** Demonstration of novel concepts for the management of pandemic crises



Human factors, and social, societal, and organisational aspects for disaster-resilient societies

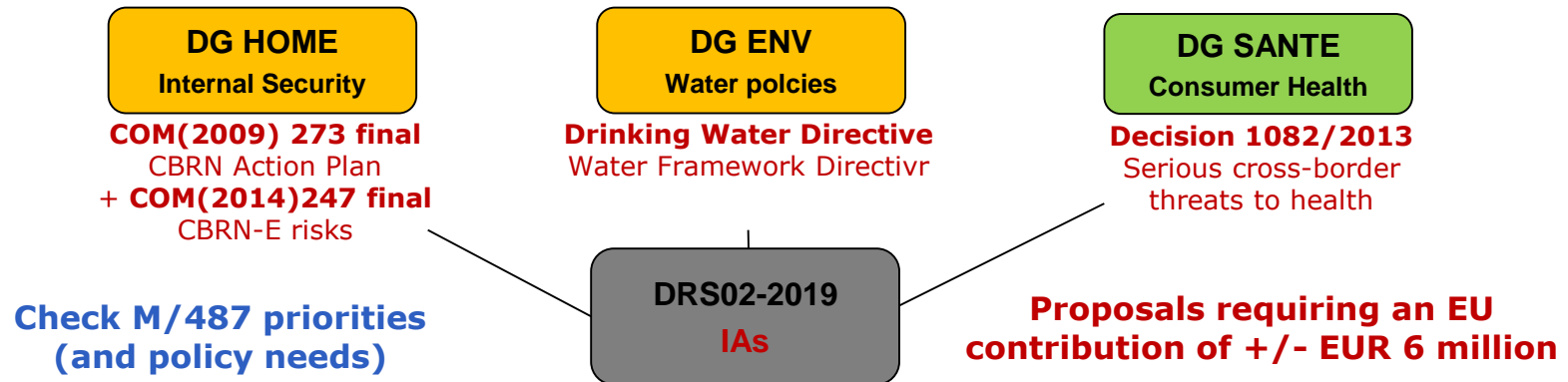
- Research and innovation in support of improved preparedness and risk awareness related to natural or man-made disasters from a societal viewpoint in view of creating a resilient society in Europe
- Research to assess social media and other crowd-sources data in emergency situations for different disaster scenarios (positive and negative impacts)
- Research encompassing the whole **risk management** cycle (from prevention and preparedness, communication, to response and recovery) with focus on risk awareness and response

Addressing diversity in **risk perception**, vulnerabilities, understanding, better transfer of research outputs to meet citizen expectations regarding risk acceptance and awareness.... **Multidisciplinary teams** with CSOs, first responders, (national, regional, local, city) authorities and involving citizens representative of **European diversity** for different types of disasters : development of a culture of improved preparedness, adaptability and resilience to risks, including the use of social-media and crowd-sourced data, and the **involvement of citizens** in the investigations and possible **validation of tools and methods**.



Novel solutions improving the protection of first responders against multiple and unexpected dangers, or enhancing their capacities by addressing related research and innovation, in particular in 2018:

- **Sub-topic 2 – Innovation for rapid and accurate pathogens detection:** novel technologies required by first responders for rapidly detecting pathogens, as well as tools for joint epidemiological and criminal risk and threat assessment and investigation.
- **Open Sub-topic:** other technologies for use by first responders (involving a large number of organisations) on e.g. communicating and smart wearables, light-weight energy sources, situational awareness using UVA and robots etc. (see text of call), the list is not exclusive. Requirement for testing and validation of technologies / methodologies not only in labs but also in training installations and in-situ deployment. Interdisciplinary teams to be involved. Participation of first responders in a systematic manner and new methods on how to involve them and organise their interactions with researchers.

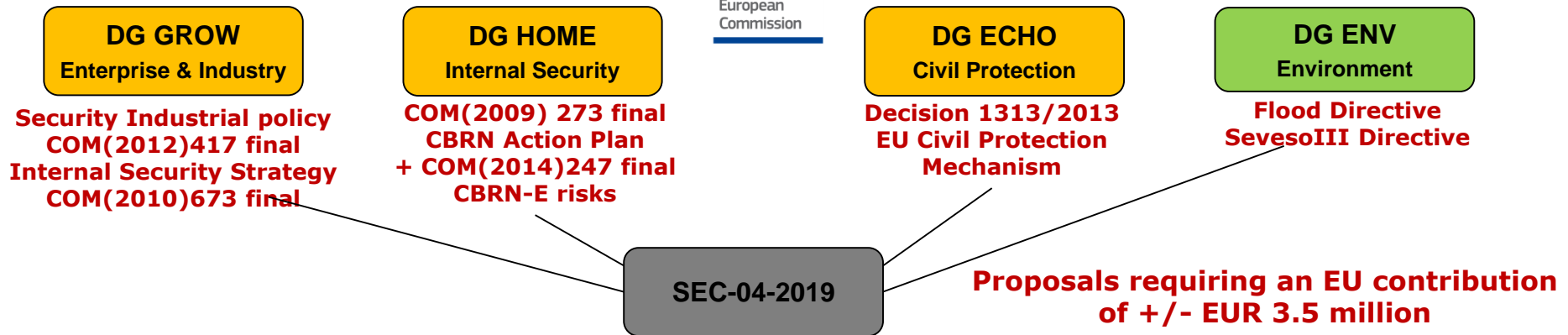


Pre-normative research and demonstration for disaster-resilient societies

Insufficient harmonisation and standardisation hampers interoperability of equipment and procedures implemented by first responders, also leading to market fragmentation. Pre-normative research may address this issue effectively. In 2018, focus will be on:

➤ **Sub-topic 2 – Pre-standardisation in crisis management (including natural hazard and CBRN-E emergencies)**: development of standards for civil protection in the areas of crisis management (including for systems, tools and services related to natural hazards and CBRN-E emergencies) to increase interoperability of equipment and procedures. IAs to bring validated and positively assessed practices into standards within or outside current standardisation processes. Participation of SOs required. Complementarity with EDA-supported activities in the CBRN-E area.

Expected impact: standards for interoperable equipment and procedures in support to operations involving international crews.



Chemical, biological, radiological and nuclear (CBRN) cluster

Technologies and innovations in the field of CBRN developed by companies which often face difficulties in bringing them to markets.

List of technologies added to ENCIRCLE platform

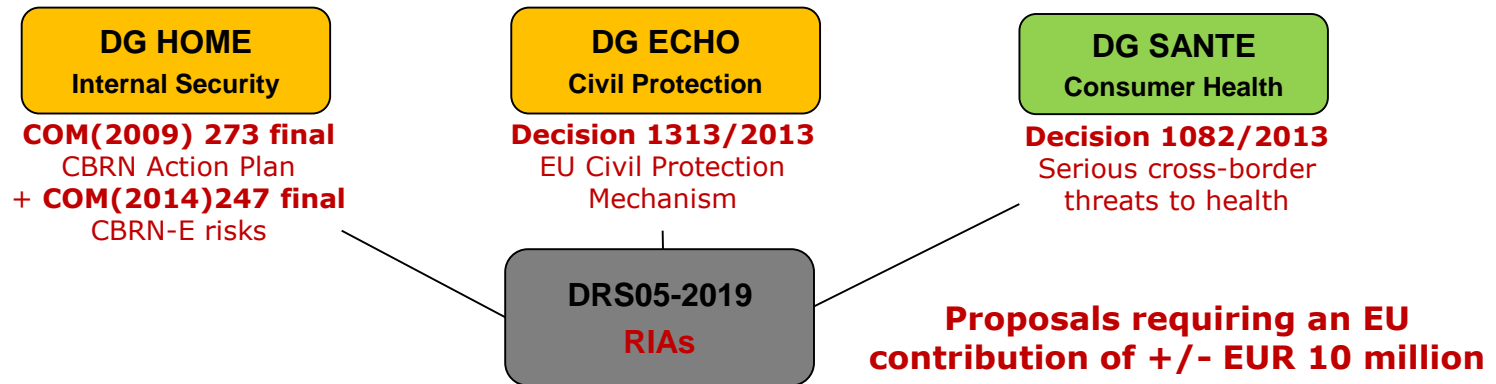
2019 call opened to RIAs led by SMEs building up an agreement with ENCIRCLE for support to the exploitation of research outputs and integration in the platform.

Where applicable, complementarity to be demonstrated with activities supported by EDA



ENCIRCLE

European Cbrn Innovation for the market CLuster



Demonstration of novel concepts for the management of pandemic crises

- Large-scale pandemics need to be addressed internationally, with a large number of practitioners and stakeholders, from planners of national health systems to first responders.
- Exploratory phase (2014) addressing the feasibility of strengthening capacity-building for health and security protection issued a number of recommendations related to research gaps and proposed innovative concepts to better integrates existing tools and systems (to be made publicly available on the portal of the call)
- Demonstrations required to assess these novel concepts in support of cross-border emergency approaches, to strengthen preparedness and response to pandemics

Expected impacts: Novel concepts for health and security protection in case of large-scale pandemics validated by international organisations and a large number of EU Member States (with a commitment to share the concepts), prototype IT system integrating innovative tools and supporting existing emergency frameworks, and operational strategy for implementation of the concepts.