



European
Commission



Introduction into funding for CIP and DRS topics within the 2016 H2020 call

Innovation and Industry for Security
DG HOME



Secure Societies – Protecting freedom and security of Europe and its citizens

Call - Disaster Resilient Society (DRS) Topics: safeguarding and securing society, including adapting climate change

Disaster resilience

3 topics in 2016: **DRS1**, **DRS2**, **DRS3**

Critical Infrastructure Protection

1 topic in 2016: **CIP-01**

Communication technologies and interoperability

One topic in 2016: **DRS4**



EU Policy context



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 SANCO
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

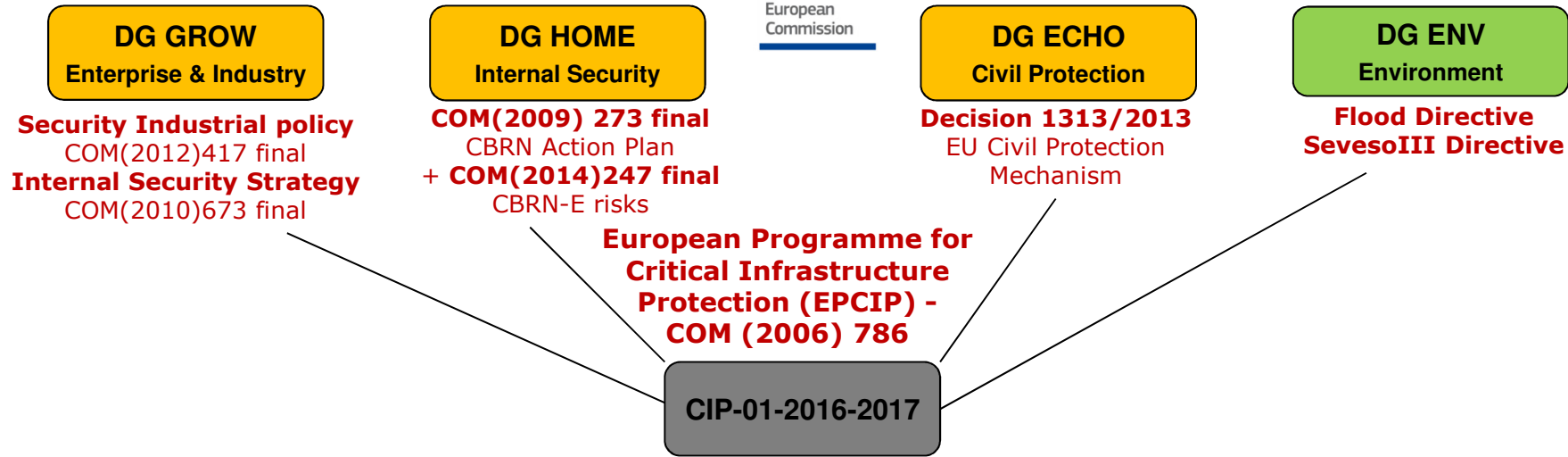
HORIZON
2020

EU Research

EDA
Defense

Joint Investment
Programme / EFC

Critical Infrastructure Protection



Prevention, detection, response and mitigation of the combination of physical and cyber threats to the critical infrastructure of Europe

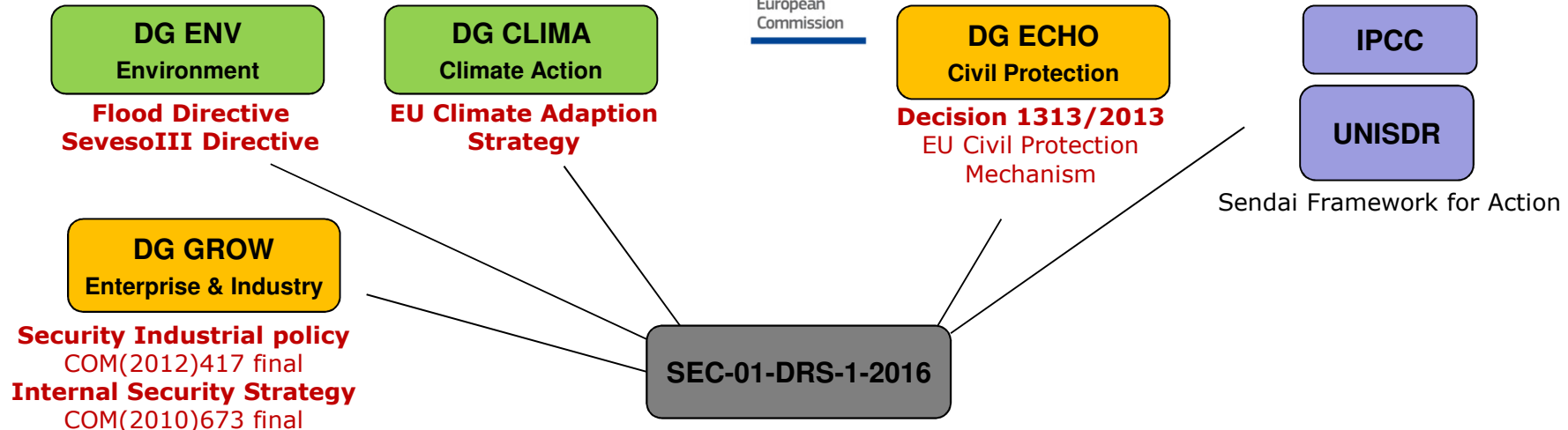
Focus **on one of** the following Cis: Water Systems, Energy (power plants and distribution) Infrastructure, Transport Infrastructure, Communication Infrastructure, Health Services, Financial Services.
Solutions covering prevention, detection, response and (in case of failure) mitigation of consequences of **both** physical (e.g. bombing, drone crashes, fires, floods, seism etc.) and cyber threats, **as well as** systemic security management and the **combination** of physical and cyber threats and incidents (interconnections, cascading effects). Innovative methods to be proposed for **sharing information** with the public in the vicinity of the installations and the protection of rescue, security and monitoring teams.

Int. Cooperation encouraged. Development up to TRL 7.
Innovation Action (+/- 8 M€)

On the short term: State-of-the-art analysis of detection technologies, risk scenarios and vulnerabilities for a specific CI.
On the medium term: Integrated solutions, innovative approaches for monitoring, protecting, communicating. In-situ demos of the solutions. Security management plans, tools, concepts, technologies to combat physical/cyber threats. Testing results and validating models. Disseminating to relevant user communities
On the long term: Convergence of safety and security standards, pre-establishment of certification mechanisms



Disaster Resilience: Safeguarding and Securing Society (1)



Integrated tools for response planning and scenario building

Insufficient interlinkage among sectors, disciplines and actors involved in disaster risk management, preventing efficient response planning and the building of realistic multidisciplinary scenarios. Needs to develop integrated tools, and stronger partnerships among research, policy, monitoring institutes, industry/SMEs and practitioners (in particular first responders). Scope on disaster risks (natural, accidental, or intentional) and emergency situations in the context of the EU Civil Protection Mechanism, consideration of IPCC recommendations and Sendai Framework for Action.

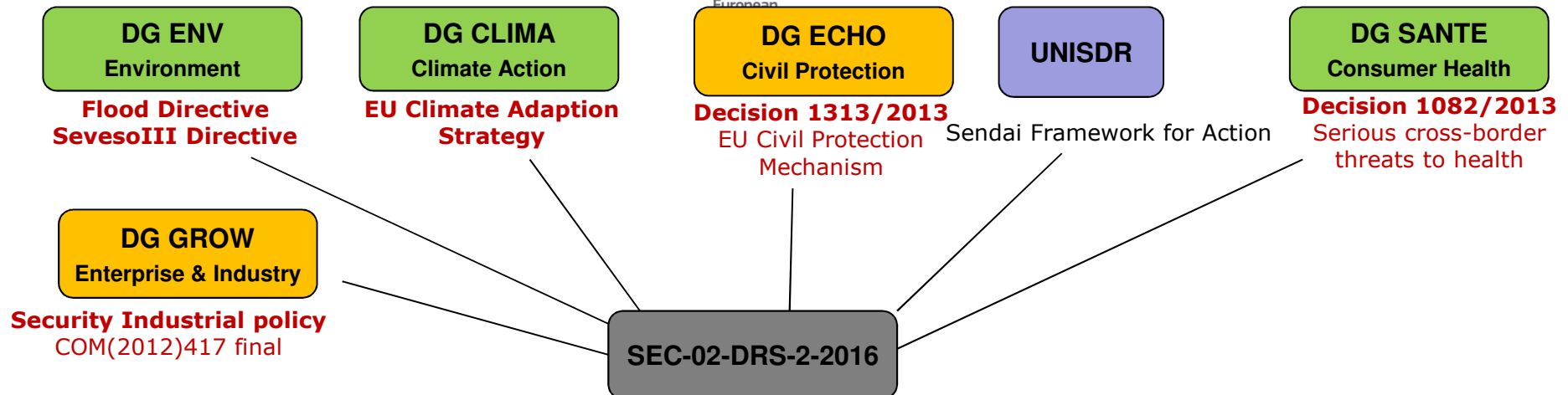
Integration of support tools that can be used by a large variety of decision-makers and first responders, building upon previous and ongoing FP7 projects and preliminary results from H2020 to avoid duplication. Demonstrations in representative and realistic environments with involvement of firefighting units, medical emergency services, police departments and civil protection units.

Int. Cooperation encouraged. Development up to TRL 7 or 8.

Innovation Action (+/- 8 M€)

Expected impacts: More efficient response capacity and improved strategy for response planning (short term), enhanced autonomy, resilience of rescue/first aid organisations in case of a disaster, updated knowledge, best practices and lessons learned from similar, past incidents, enhanced understanding of human factors in relation to events affecting CIs, development of new tools and adaptive networking of existing technologies, demonstrating interoperability for use in all-hazards situations, with consideration of EU guidelines and recommendations. Development of scenarios with local authorities and end-users, tools for enhancing stakeholders and population awareness, societal acceptance of autonomous systems entities (satellite etc), greater cooperation among actors in crisis management, and stronger practitioner's involvement in validating and testing tools, concepts etc.

Disaster Resilience: Safeguarding and Securing Society (2)



CSA on situational awareness systems to support civil protection preparation and operational decision making

Insufficient integration of existing technologies and prototype tools to improve situational awareness in time of crisis. Needs to better understand the psychological, cultural, language and societal dimension of situational awareness in order to prevent, prepare and manage crisis situations. Systems for EU, national, regional and local buyers should be cost effective and interoperable, integrate different technologies (e.g. sensors, EWS, communication, satellite-based systems) and demonstrate resilience and self-sufficiency. In addition, systems should be customizable by specific civil protection authorities and adaptable to various risks and crisis scenarios (e.g. range of natural hazards, industrial accidents, biohazards etc.) especially in the context of cross-border cooperation.

Action to identify new and promising solutions, develop/agree on core set of specifications for a given system, on roadmap for research still needed, and related tender documents upon which to base future (research services and system) procurements. Subsequent actions (PCP, PPI, others) to implement tender procedures to develop, test, validate prototypes may be envisaged.

Int. Cooperation encouraged. Development up to TRL 6.

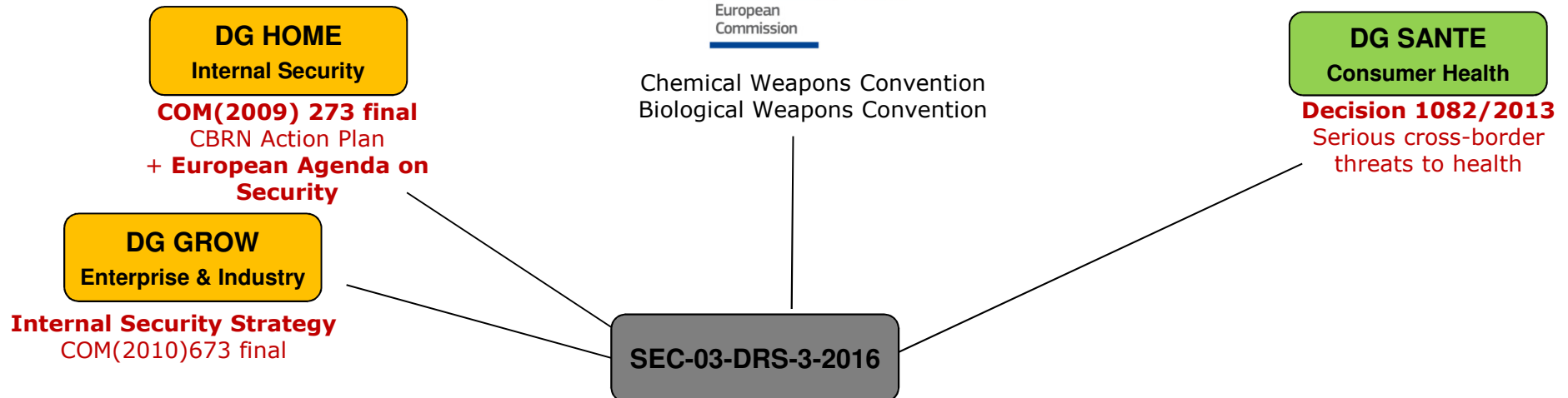
Coordinated & Support Action (+/- 1.5 M€)

Expected impacts: Improved cooperation among civil protection services across the EU and Associated countries, between hazard-monitoring institutes and civil protection services, exchange of experiences among stakeholders within the DRM cycle, improved response capacity. On the long term, lower operating costs for European humanitarian actions.

Further to the CSA achievement: possible PCC/PPI co-fund action in the future



Disaster Resilience: Safeguarding and Securing Society (3)



Validation of biological toxins measurements after an incident: Development of tools and procedures for quality control

Poor comparability of results from different laboratories casts doubts about method validation, and hence on decisions in case of bioterrorist act using compounds such as e.g. ricin, saflatoxin, botulinum, neurotoxins, enterotoxins etc. (covered by the Chemical and Biological Weapons Conventions). Lack of QA/QC tools and SOPs hampering EU-wide comparability of biological toxin measurement data. Need to develop an EU-wide approach for enhancing validating analytical capacities.

Action to develop QC tools as well as SOPs for the establishment of a mechanism to systematically validate laboratory-based measurement techniques, including sampling strategies and in-situ analyses by mobile and quickly deployable laboratories.

Innovation Action (+/- 8 M€)

Expected impacts: Development of CRMs for biotoxin determinations, stepwise learning inter-laboratory programme to improve laboratory skills and development of European Proficiency Testing scheme from sampling to detection. Improved capabilities for validating and testing existing and emerging techniques, incl. Sample preparation strategies, in-situ analyses and technical approaches for forensic analysis. Replacement of old "gold standards" employing animal experiments by modern in vitro methods as requested by EU regulations. On the long term, based on the EPT scheme, development of SPOs for validating analytical techniques, including in-situ techniques for biotoxin determinations in human specimens, environmental and food samples.



Lessons learnt from stakeholders



Individual evaluation and consensus :

- ✓ Promotion of upstream involvement of end-users in research requirements, in particular first responders
- ✓ Contribution of research proposals to EU security policy implementation
- ✓ Awareness for science-policy-industry-operator's links and of necessary synergies among different actors and initiatives

Overall panel:

- ✓ (prior) Reflection on coverage of all topics within the Call





Thank you very much!

Philippe Quevauviller
Programme Officer – EU Policies
B.4: Innovation and Industry Security

E-mail: philippe.quevauviller@ec.europa.eu