
Collaboration between RTO and practitioners in DRS projects

Some examples



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Project examples



Overall collaboration FhG-INT – practitioners

supporting innovation management



IN-PREP

An INtegrated next generation PREParedness programme for improving effective inter-organisational response capacity in complex environments of disasters and causes of crisis



- 2017-2020; € 8 million EU funding; Call topic: SEC-01-DRS-2016
- 20 partners from 7 European countries, coordinated by ICCS
- Practitioner organizations in the consortium (full partner):

<i>Participant organisation name</i>	<i>Short name</i>	<i>Country</i>
Italian Ministry of Interior - Dipartimento dei Vigili del Fuoco, del Soccorso Pubblico e della Difesa Civile	CNVVF	Italy
SAMU Urgences de France – Assistance Publique – Hopitaux De Paris	SAMU	France
Police Service of Northern Ireland	PSNI	Northern Ireland
The German Police University	DHPol	Germany
Safety Region IJsselrand – Veiligheidsregio IJsselrand	SRIJ	The Netherlands
Municipality of Rhodes – Dimos Rodou	RHO	Greece
Health Service Executive	HSE	Ireland



IN-PREP

An INtegrated next generation PREParedness programme for improving effective inter-organisational response capacity in complex environments of disasters and causes of crisis



■ IN-PREP will create a **Mixed Reality Preparedness Platform**

- To facilitate interoperability
- To merge decision support mechanisms
- To integrate situational awareness with real time information.

■ **Table-top exercises/ demos**

- 3 table top exercises: industrial accident – SEVESO/ CBRN threat; evacuation of cruise ship; massive flood event
- 3 demonstrations: cross-border terrorist attack; earthquake & CI cascading failures; large forest fire during refugee crisis



IN-PREP

An INtegrated next generation PREParedness programme for improving effective inter-organisational response capacity in complex environments of disasters and causes of crisis



FhG-INT – practitioners collaboration in IN-PREP

- Identification of (1) user needs, (2) success and failor factors in crisis management, and (3) organisational, political, and human context factors
 - **FhG-INT** developed a framework, conducted literature research , as well as interviews and a workshop with practitioners
 - **Practitioners** contributed with their experience, validated recommendations
- Development of a handbook
 - **FhG-INT** develops the structure and coordinates the contributions
 - **Practitioners** evaluate its usability in practice



FIRE-IN

Fire and Rescue Innovation Network



- 2017-2022; € 3.5 million EU funding; Call topic: SEC-21-GM-2016-2017
- 16 partners from 8 European countries, coordinated by SAFE CLUSTER
- Practitioner organizations in the consortium (full partner):

<i>Participant organisation name</i>	<i>Short name</i>	<i>Country</i>
Pôle de compétitivité SAFE CLUSTER (ex Pôle Pégase) <i>Coordinator</i>	SAFE	France
Ecole Nationale Supérieure des Officiers de Sapeurs-Pompiers – French National Fire Fighter Officers Academy	ENSOSP	France
Italian Ministry of Interior	IMI	Italy
Bundesanstalt Technisches Hilfswerk	THW	Germany
Catalonia Fire Service Rescue Agency	CFS	Spain
The Main School of Fire Services	SGSP	Poland
Council of Baltic Sea States	CBSS	Sweden
Swedish Civil Contingencies Agency	MSB	Sweden
Czech Association of Fire Officers	CAFO	Czech Republic



FIRE-IN

Fire and Rescue Innovation Network



Faster and cheaper access to the state-of-the-art Fire and Rescue technology for the whole Europe

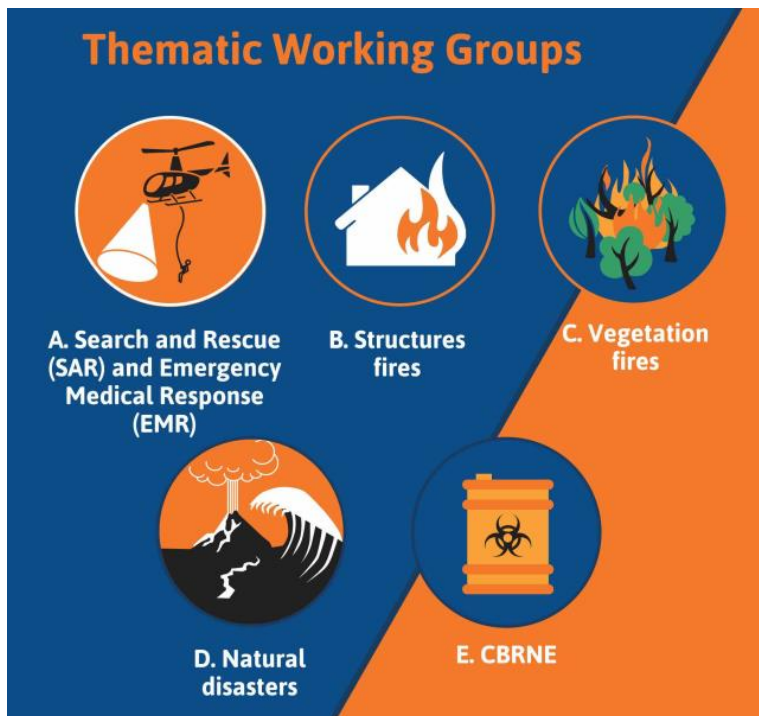


FIRE-IN

Fire and Rescue Innovation Network



FhG-INT – practitioners collaboration in FIRE-IN



- The FIRE-IN framework to organise taxonomy, methodology and workflow
 - **FhG-INT** +partners developed the framework
 - -> basis for **practitioners** for further work
- Thematic Working Group workshops:
 - **FhG-INT**: development of workshop methodology, provision of thematic framework
 - **Practitioners**: Participation, analysis of capability gaps
- Identification of promising solutions
 - Identification by **FhG-INT** + R&D partners
 - Evaluation by **practitioners**

SmartResilience

Smart Resilience Indicators for Smart Critical Infrastructure



- 2016-2019; € 5 million EU funding; Call topic: DRS-14-2015
- 20 partners from 12 European countries, coordinated by EU-VRi
- Practitioner organizations in the consortium (full partner):

<i>Participant organisation name</i>	<i>Short name</i>	<i>Country</i>
City of Edinburgh	CoE	UK
Stadtwerke Heidelberg GmbH	SWH	Germany
Cork City Council	CCC	Ireland
Hungarian National Police	HNP	Hungary
Petroleum Industry of Serbia	NIS	Serbia



SmartResilience

Smart Resilience Indicators for Smart Critical Infrastructure



SmartResilience aims to provide an innovative holistic methodology for assessing resilience of Smart Critical Infrastructures (SCIs) based on indicators

- six case studies plus one integrated virtual case study

Infrastructure (CI) / Scenarios	Case Studies	Terrorist attack	Cyber attack	Natural threats	CI-specific events
Smart cities	Germany, Sweden, Ireland	✓	✓	✓	Social unrest, urban floods, interruption of water supply
Smart finances	UK	(✓)	✓		Cyber risks, climate risks
Smart health care	Austria	(✓)	✓	(✓)	Breach of privacy
Smart energy supply systems	Finland		(✓)	✓	Interruption of fuel supply & district heating
Smart industrial / production plant	Serbia	(✓)	✓	(✓)	Industrial accidents'
Smart transportation	Hungary	✓	(✓)		Disruption of airport services
Integrated Virtual Case Study	Combined scenarios in all SCIs	✓	✓	✓	Cascading effects

✓ - yes, (✓) - partly



SmartResilience

Smart Resilience Indicators for Smart Critical Infrastructure



FhG-INT – practitioners collaboration in SmartResilience

■ Identification of challenges and interdependencies of smart critical infrastructures

- **FhG-INT** managed and processed the contributions from partners/ practitioners
- **Practitioners** contributed with their knowledge and experience related to the case studies

Phases Dimensions	Understand risks	Anticipate/ prepare	Absorb/ withstand	Respond/ recover	Adapt/ learn
Information/ data	Green	Orange	Green	Red	Orange
Organization al/ business	Green	Orange	Red	Green	Red
Societal/ political	Orange	Red	Red	Orange	Orange
Cognitive/ decision- making	Orange	Green	Green	Red	Red

Resilience matrix



Thank you for your attention!



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