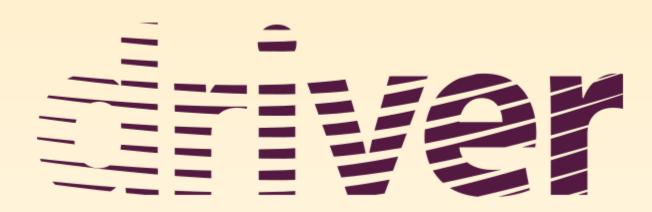
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Driving Innovation in Crisis Management for European Resilience

STRENGTHEN RESPONSE IN EUROPE

VISION 2025, SOTA AND EXPERIMENTS

Josine van de Ven and Dirk Stolk (TNO) I4CM conference, Marseille, 27 May 2015

Why DRIVER exists? - growing complexity



Hazards change, both for natural and man-made reasons – climate change being a well-known example of the latter

Vulnerabilities change, for reasons ranging from migration to societal evolution affecting people's ability to cope with crises

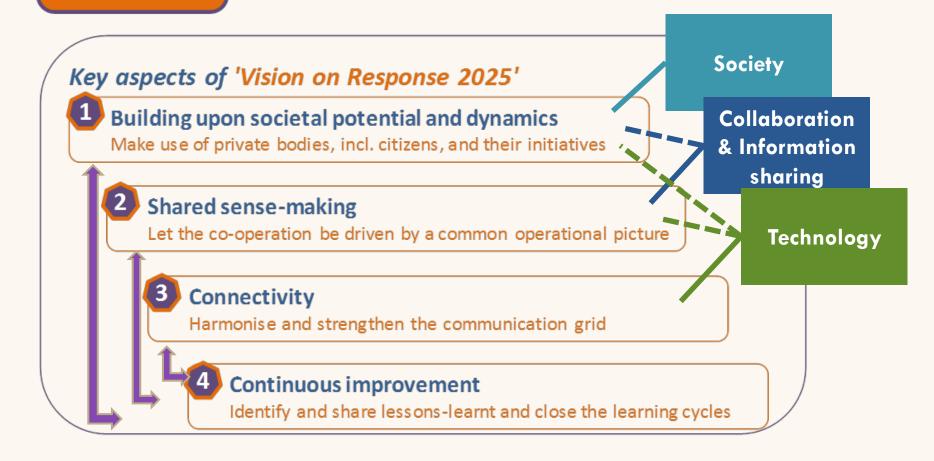
Interconnectedness changes because of increased connectivity in the technical domain, for example the power transmission system, and in the socio-cultural domain as the IT enabled citizen and cross-border communities become increasingly important

Vision – Key aspects to solve gaps

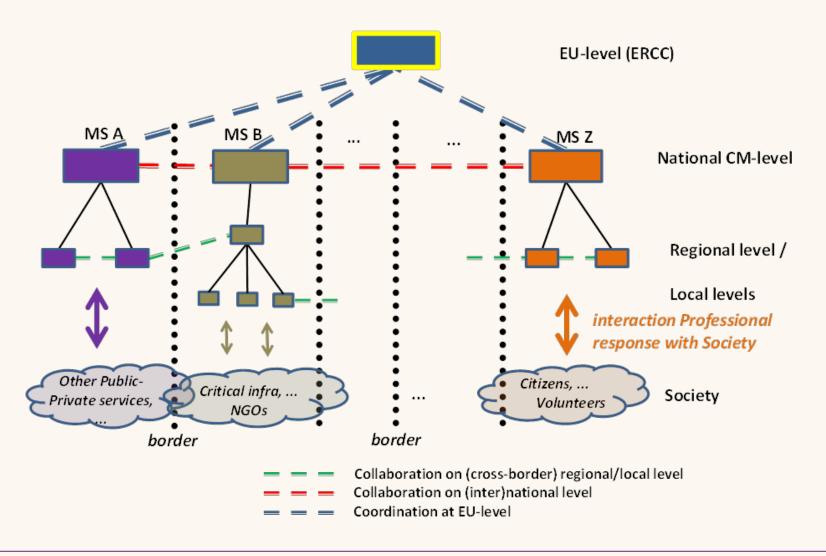


Vision

Comprehensive response







Crisis management tasks



5 Minimise crisis effects OPERATIONAL [C] [J] Other Emer-Supply Clear Search Security Inform Evacua And and gency tion Rescue Law nvolve Health restoraenforce Shelter the tion of on-site Care ment public basic infrastruct. Support operations [I] Co-ordination, Command & Control (decision making, planning and tasking) [II] Situation assessment ('sense making') SUPPORTING [III] Information management / distribution (information portal) [IV] Monitoring / Information gathering [V] Supply of basic services to enable CM <mark>(commu</mark>ni<mark>cations/I</mark>CT, power, security, ...) [VI] Logistics (transport of personnel/materiel, supply of fuel, medicins, ...) Prepare CM capabilities a) Policy making/Capacity building b) Doctrine/Procedures developm. c) Procure/Maintain/Warehousing d) Community awareness raising e) Training and Exercises f) Evaluation g) Prepare civil-military co-operat.

Operational tasks

Fire-fighting, SAR, Emergency Health Care, Evacuation, ...

Supporting tasks

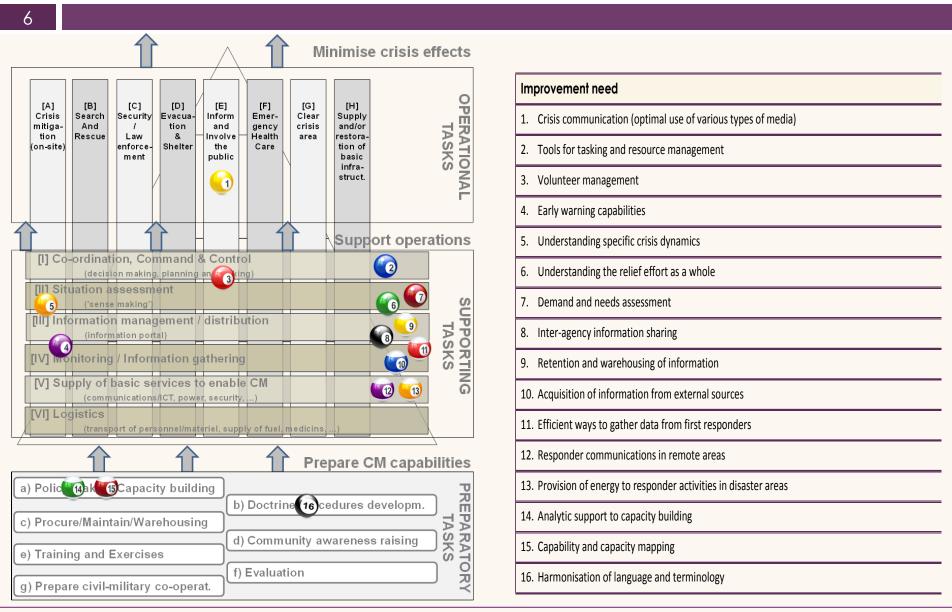
 Command & Control, Coordination, Situation assessment, Information management, ..., Logistics, ...

Preparatory tasks

 Capacity building, Development of procedures, Procurement, Education and Training, ...

DRIVER/SP4 related gaps (from FP7 ACRIMAS)





Solving gaps – Trends





Relevant trends – 4 categories



Category	Trend
[1] Crisis nature	Increasing number and scale of several types of disasters
	Increase of cascading events due to interdependencies of critical services
[2] Society	Demographical changes
	Changes in attitude of citizens towards threats, crises and uncertainty
[3] Collaboration and information sharing	Growing diversity of participants involved in crisis management
	Towards Network-Enabled Capabilities
	Increasing need for information management
	Increasing dependency on the information domain
[4] Technology	Towards human-in-the-loop sensing (Web 2.0)
	Progress in sensor technology
	More opportunities to apply unmanned vehicles
	Growing potential of crowd sourced mapping
	Improvements enabling big-data exploitation
	Towards service-oriented ICT (cloud computing)
	Towards higher levels of technological interoperability
	Developments in communications technology
	Technical advancement with respect to information security

Vision – Key aspects to solve gaps



Vision

Comprehensive response

