From EU projects to international standards: Bridging the gap between the world of research and the world of standardization in the area of safe and resilient societies

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**Note:** only the 5 selected slides will be shown at the opening – all others will be used for discussion, if appropriate and/or needed

**Note:** as per mail of May 25, 2018 (Ph. Quevaquiller):

“...we do not want project presentations but rather considerations expressed by different actors on the panel topics which are highlighting trends, gaps and perspectives from different angles (policy, science, industry, practitioners) if at all possible…”

and

“... panelists ... advised that due to time constraints PowerPoint presentations will be discouraged…”
Addressing some of the “common issues” in the EU projects

From a longer ("EU") list of “common issues”:

- ... Big idea behind some projects? How do they support society, citizens, EU and stakeholders? Actions way forward?
  Here: ResiStand, SMR, SmartResilience...

- How do DRS project deliverables contribute to security standardization vision/mission
  Here: CWA 91:2018, ISO 31050...

- DRS projects:
  Benefits, Difficulties, challenges, achievements, lessons learned, ...

- Here: Bridging the gap between the “two worlds”: Two types of standards for DRS projects...
TWO TYPES OF STANDARDS!
## Two types of standards: “after” vs. “upfront”

<table>
<thead>
<tr>
<th>Standards AFTER</th>
<th>Standards UPFRONT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Created AFTER the best-solution is found</td>
<td>Created BEFORE the best-solution is found</td>
</tr>
<tr>
<td>Product-oriented</td>
<td>Framework-oriented</td>
</tr>
<tr>
<td>Production-oriented</td>
<td>Collaboration-oriented</td>
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<tr>
<td>Best single-performance oriented</td>
<td>Best network performance oriented</td>
</tr>
<tr>
<td>Industry-driven</td>
<td>Public interest driven</td>
</tr>
<tr>
<td>High level SINGLE DOMAIN experts oriented</td>
<td>Public and MULTIPLE DOMAIN experts oriented</td>
</tr>
</tbody>
</table>
What types of standards do we talk about?

- Standards by experts and/or for experts

Example: Comparison US vs EU standards – one of the is probably overconservative “wasting money” or not safe enough!
What types of standards do we talk about?

- Today – Standards FOR the society
  - ISO 14xxx Environment
  - ISO 223xx – Security/Resilience
  - ISO 26000 – Corporate Social Responsibility
  - ISO 27xxx – IT security
  - ISO 31000 – Risk Management
  - …

Standardize:
- Frameworks
- Procedures
- Processes
- Formats
- INDICATORS
- …
Resilience: Standardizing what?
Two types of standardization issues – also for DRS!

Level of stakeholder’s participation

1. **Instrumental**
   - Simple
   - Find the most cost-effective way to make the risk acceptable or tolerable

2. **Epistemic**
   - Complex
   - Use experts to find valid, reliable and relevant knowledge about the risk

3. **Reflective**
   - Uncertain
   - Involve all affected stakeholders to collectively decide best way forward

4. **Participative**
   - Ambiguous
   - Include all actors so as to expose, accept, discuss and resolve differences

After © Renn 2011
Why is it all so important for DRS projects? Because of the risk aversion paradox and the “trust gap”!

- Number of accidents

1. Quick success
2. Constant improvement
3. Saturation

Technology improvement

Safety Management Systems
Safety Culture
Safety Behavior

Risk aversion

The “trust gap”? RESILIENCE!
Conclusions:
DRS must master the standardization challenges of...

- High standardization costs
- Lack of understanding the benefits
- Long standardization projects
- Complex standardization procedures
- Competition instead of collaboration
- Closing the “gap of trust” by standardization of “type 2”
Current efforts within the CoU/DRS: perspective

1. „We run the era where for many people and for many sub-sectors, GDPR is considered as de facto global Standard similar to many IT standards” Can we have such EU-standard-like-docs for other DRS-relevant areas?

2. E.g. like ISO 26000 and Global Reporting Initiative G4 Sustainability Guidelines? “GRI-G4” of resilience?

3. An opportunity of promoting EU as an actor in Global Governance: EU Resilience Governance beyond the State - global problems demand global solutions

4. We already have a lot – newest: CEN/WS 91 City Resilience Development - Maturity Model) or under preparation (ISO 31050)

Adapted from: Security-related standardization: supporting research and governance needs. A. Poustourli; EU
1. Virtually all projects include standardization in one or another way.


3. Some projects produce pre-standardization documents (e.g. CWA 91 in SMR project http://smr-project.eu/fileadmin/user_upload/Documents/Resources/WP_6/2018-03-28_D6.5_Draft_CEN_Workshop_Agreements.pdf)

Possible solutions for time, cost and alignment issues in EU projects?

Just some hints from the past experience

- The standard-development (naturally!) at the end of the project – no time, no money for standardization available! ...

Solution: do one bit of standardization in “concatenated projects”
Examples:
BE5935 > RIMAP > CWA 15740 > SafeLifeX > EN16991
iNTeg-Risk > CWA 16449 > SmartResilience > ISO 31050

- Standard(s) cannot be “ONE project oriented”, they need alignment ACROSS THE PROJECTS and activities...
Solution: “Think big start small”!
Example:
Resolute + SMR CWA91 + SmartResilience ISO31050 /Tools
Add-on
Example: ISO 31050 (ISO/IEC NP 31050): Guidance for managing emerging risks to enhance resilience

TC 262: Q&A Session (WebEx), May 7/8, 2018, Including notes from the discussion

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... manage emerging risks to enhance resilience
The problem (in other words, i.e. picture!):
... managing emerging risks to enhance resilience

The problem (in other words, i.e. picture!):

**ISO 31050, extending ISO31000:**
INTEGRATED CONCEPT, METHOD, TOOLS!

**Known Risks (ISO31000)**
- common protocols,
definitions,
indicators, ...

**Emerging Risks**
(new, unknown...)

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Resilience
(ISO 223xx)

[Diagram showing functionality level of the infrastructure over scenario time with conventional risks, emerging risks, and stress-test limits.]
Why is this a standardization issue ("what needs to be standardized in order to solve the problem")?

1. **COMMON terminology, protocols (procedures) and templates needed**
   
   E.g.: The horizon emerging risk scanning procedures need to be compatible if the results of scan from institution A should be comparable to those of institution B

2. **The Terminology, Protocols (procedures) and templates need to be both GLOBAL/INTERNATIONAL and NATIONAL**
   
   (ISO 31050 will on existing and/or currently developed terminologies – e.g. in TC262 and TC292, but protocols and templates are yet to be developed)

3. **The procedures have to result in common RISK & RESILIENCE INDICATORS**
   
   E.g.: Number of accidents in occupational safety was an indicator ever since, but only after the global agreement that it should be measured over 1,000,000 working hours it became possible to compare and benchmark the practices