Terminology in Crisis and Disaster Management

CEN Workshop Agreement

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Background

- The FP7 project **EPISECC** develops a concept of a **common information space** including **taxonomy** building to improve interoperability between European crisis managers and stakeholders.

- EPISECC is mandated to provide the outcome of its research to international standardisation – involvement in **CEN TC391**.

- Within the FP7 project **DRIVER** a standard on **terminology** in crisis management shall be developed (among multiple other goals).

- DRIVER & EPISECC will jointly co-operate on this issue.

- Additional support is planned from the FP7 projects **REDIRNET, SECINCORE** and **SECTOR** (all dealing with interoperability).
Scope and Purpose

- Provision of an overview of existing terminologies and definitions applied in multiple domains of crisis and disaster management
- Overview on synonyms with the same or similar definitions
- Overview on different definitions for the same term
- **Benefit:** Support enhancement of mutual understanding of users/organizations applying different standards/taxonomies
- **Benefit:** Potential long term perspective: enhanced use of most suitable terms and definitions arising from multiple sources
Scope and Purpose (Example)

<table>
<thead>
<tr>
<th>Domain</th>
<th>Term</th>
<th>Definition</th>
<th>Standard/document</th>
<th>Intended Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Societal security</td>
<td>disaster</td>
<td>situation where widespread human, material, economic or environmental losses have occurred which exceeded the ability of the affected organization (2.2.9), community or society to respond and recover using its own resources</td>
<td>ISO 22300 (2012)</td>
<td>not specified</td>
</tr>
<tr>
<td>not specified</td>
<td>disaster</td>
<td>A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.</td>
<td>UNISDR Terminology (2009)</td>
<td>authorities, practitioners and the public</td>
</tr>
<tr>
<td>Natural disasters</td>
<td>disaster</td>
<td>no definition given</td>
<td>Disaster Category Classification and peril Terminology for Operational Purposes - Working paper 264 (2009)</td>
<td>user of EM-DAT and other databases</td>
</tr>
<tr>
<td>Natural disasters</td>
<td>climatological disaster</td>
<td>Events caused by long-lived/meso to macro scale processes (in the spectrum from intraseasonal to multidecadal climate variability)</td>
<td>Disaster Category Classification and peril Terminology for Operational Purposes - Working paper 264 (2009)</td>
<td>user of EM-DAT and other databases</td>
</tr>
</tbody>
</table>
Idea

Developing a new common terminology in Crisis and Disaster Management

Versus

Organizing existing terminologies into a database and establishing semantic mappings between their concepts
Database of terminologies

Database based on the standard:
- ISO 25964 - standard for thesauri and interoperability with other vocabularies
- SKOS (Simple Knowledge Organization System)

Sources of existing terminologies:
- ISO 22300 (2012)
- UNISDR Terminology (2009)
- ... 
- project proposals: EPISECC, DRIVER, REDIRNET, SECINCORE and SECTOR
- Another option: national project INKA
Establishing semantic mappings between the terminologies’ terms/concepts

To use thesaurus features to enhance operability of the database

- Term A from ISO 22300 *is synonym of* Term B from UNISDR Terminology
- Term C from ISO 22300 *is broader term of* Term D from UNISDR Terminology
Justification

- Cross-border and cross-organisation information exchange between stakeholders is one of the major challenges of European as well as international crisis management.

- First investigations demonstrated that European CM organisations use a **large variety of standards and procedures** leading to a considerable variability of applied terms and associated definitions.

- In addition, **language barriers** play a crucial role.

- It is unlikely that any organisation or any member country is ready to adapt their SOPs, standards, procedures for a common standard.

- Availability of an (extendable) overview on terms and definitions might be a crucial **step to improve interoperability**.
Relation to EU Mandate/Directive

- **Mandate M/487** to Establish Security Standards (2011)


- ....
# List of Related Documents

<table>
<thead>
<tr>
<th>Standard Nr</th>
<th>Document Name</th>
<th>Organization</th>
<th>Name and/or Short Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO 22300 : 2012</td>
<td>Societal security -- Terminology</td>
<td>ISO</td>
<td>ISO 22300:2012 contains terms and definitions applicable to societal security to establish a common understanding so that consistent terms are used</td>
</tr>
<tr>
<td>ISO/CD 22316</td>
<td>Societal security -- Organizational resilience -- Principles and guidelines</td>
<td>ISO</td>
<td>Societal security -- Organizational resilience -- Principles and guidelines</td>
</tr>
<tr>
<td>ISO guide 73 : 2009</td>
<td>Risk management -- Vocabulary</td>
<td>ISO</td>
<td>ISO Guide 73:2009 provides the definitions of generic terms related to risk management. It aims to encourage a mutual and consistent understanding of, and a coherent approach to, the description of activities relating to the management of risk, and the use of uniform risk management terminology in processes and frameworks dealing with the management of risk.</td>
</tr>
<tr>
<td>X.cee.2</td>
<td>CEE dictionary and event taxonomy (CDET)</td>
<td>International Telegraph Union</td>
<td>CEE dictionary and event taxonomy (CDET)</td>
</tr>
</tbody>
</table>

*) the listed documents do not intend to be complete and are of illustrative character
Joint/Parallel Work (1)

- **EN ISO 22300** Societal Security - Terminology (2014-07) à under revision: The revision process will identify the terms used in more than one standard and confirm that their definitions are consistent (http://www.isotc292online.org/projects/ISO-22300-)

- **DIN SPEC 91330** - Terminology relating to events in pipeline- and cable-based infrastructures (2015-08)

- **ANSI/ASTM E 176** - Terminology of Fire Standards (2015-00)

Joint/Parallel Work (2)

- **DS 3001** Organizational resilience: Security, preparedness, and continuity management systems - Requirements with guidance for use (2009-10)
  An extensive Glossary of terms appears in Annex D

- **BS 11200** - Crisis management. Guidance and good practice (2014-05)
Thank you for your attention!!