PREPARE

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PREPARE General

PREPARE

- PREPARE: Innovative integrated tools and platforms for radiological emergency preparedness and post-accident response in Europe
- Research project under the European Commission's 7th Framework Programme, EURATOM for Nuclear Research and Training Activities (work programme 2012), Fission-2012-3.3.1, Grand Agreement Number 323287
- Start first of February 2013, will last 3 years
- 45 partners
- 6 research work packages
- 1 work package on training and dissemination
- 1 work package on management

Disaster related deaths (DRD)

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Figure Number of disaster-related deaths after the Great East Japan Earthquake by prefecture and age

Prefecture	Total	The difference from the previous value	Age group		
			≤20	≥21 <65	≥66
Iwate	446	(5)	1	55	390
Miyagi	900	(11)	2	113	785
Fukushima	1,793	(89)	0	169	1,624
Others	55	(0)	3	10	42
Total	3,194	(105)	6	347	2,841

Seiji Yasumura, Fukushima University (As of Sept. 30, 2014)

Press releases first month after Fukushima

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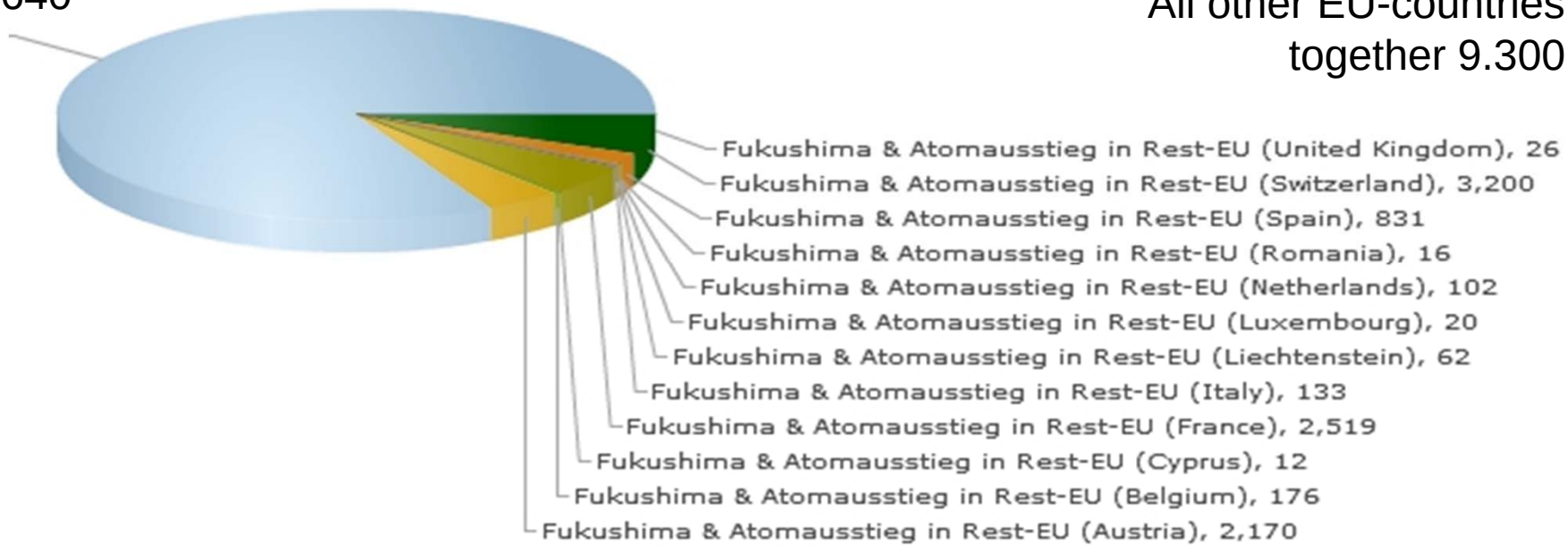
Germany
43.640

All other EU-countries
together 9.300



WP2 (Analytical Platform (AP))

- **Platform for information collection and exchange**: The objective is to develop a so called **Analytical Platform (AP)** for **information analysis and exchange** in time of nuclear or radiological crisis events allowing **discussion between experts** on an expert-level and to **widespread congruent information** on the current situation to the **public including mass media**. The AP will cover all phases of an emergency and the functionalities will **support uncertainty handling** in the early beginning of the emergency in case information is sparse.

Components of the Platform

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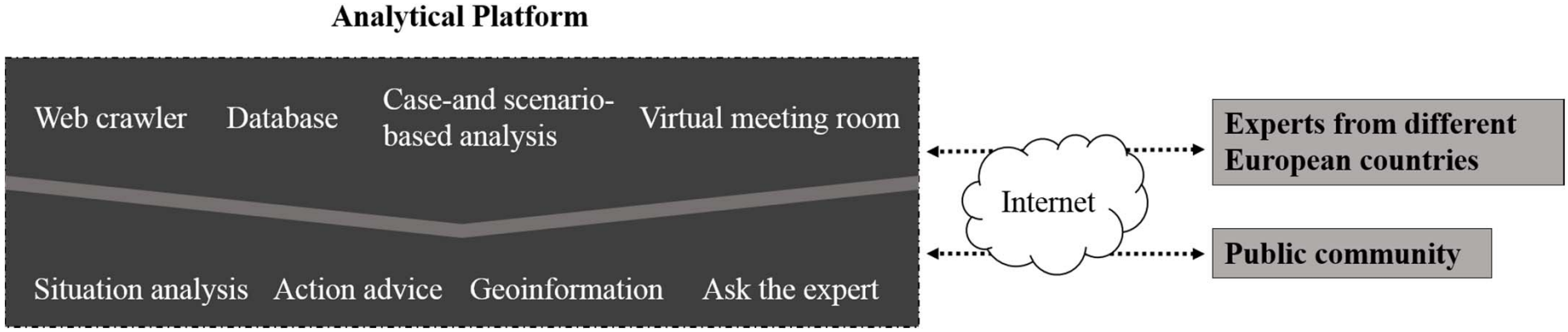
- Situation awareness
- Means to communicate with experts and public
  - Virtual meeting room
  - Ask the expert
- Web crawling
- Central database with historic cases and scenarios
- Case-based reasoning functionality to adapt to new situations
- Decision support



Knowledge database

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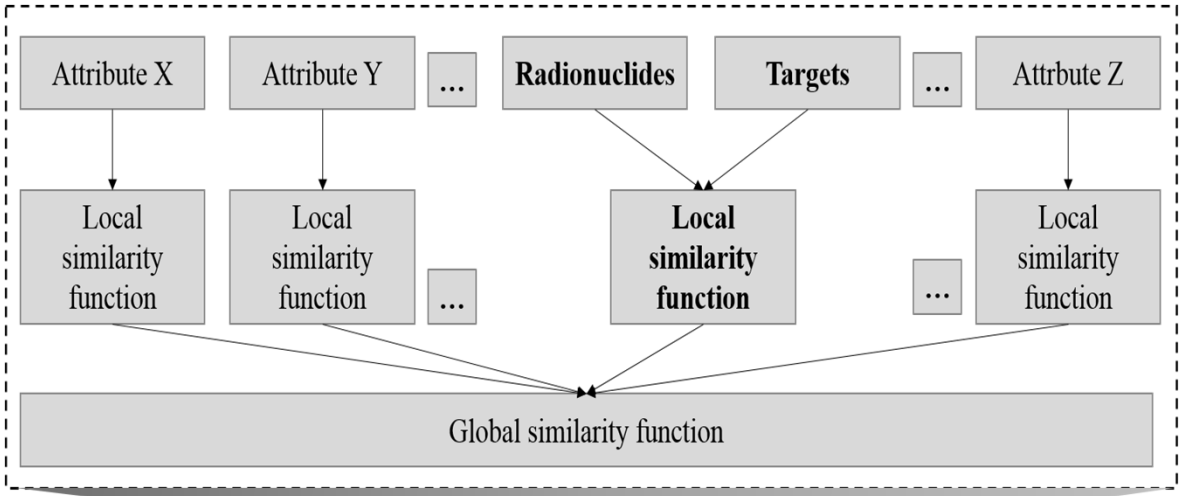
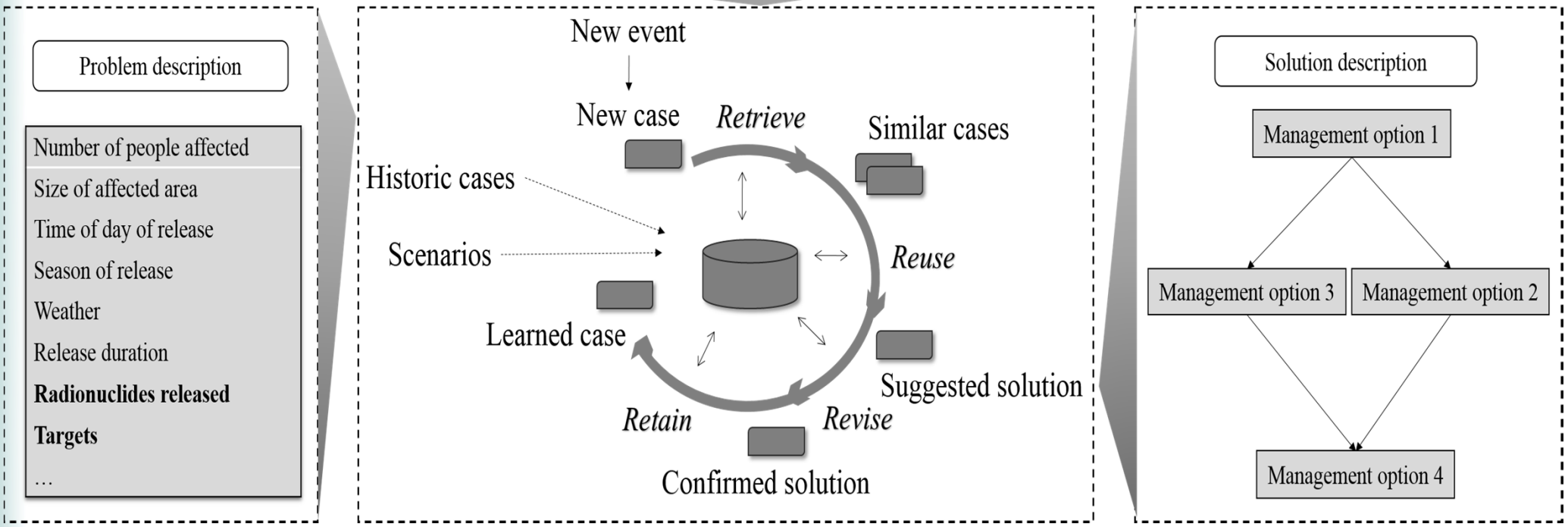
- Requirement: Providing a **structured storage facility** for **historic events and fictitious scenarios**, their **propagation with time** and their applied (or applicable) **emergency measures**
- Objective: Supporting a **fast assessment of a current event**
- Means:
  - Defining **attributes** and **attribute ranges** to provide a **unique representation**
  - Taking into account **decision-making factors** and **resulting effects**
  - Taking into account **accident phases** and hence the status of the release, type and urgency of countermeasures, type and availability of resources, and relevance of exposure pathways

Case Based Reasoning





Where are we?

- Data base structure and attributes defined with support of experts
- Several cases defined from
  - Chernobyl accident
  - Windscale fire
  - Fukushima Daiichi nuclear power plant accident
  - Litvinenko poisoning
- Scenarios are under preparation based on WP1 on long lasting releases
- First demonstrator ready for testing by end of June 2015

First Demonstrator of the Platform

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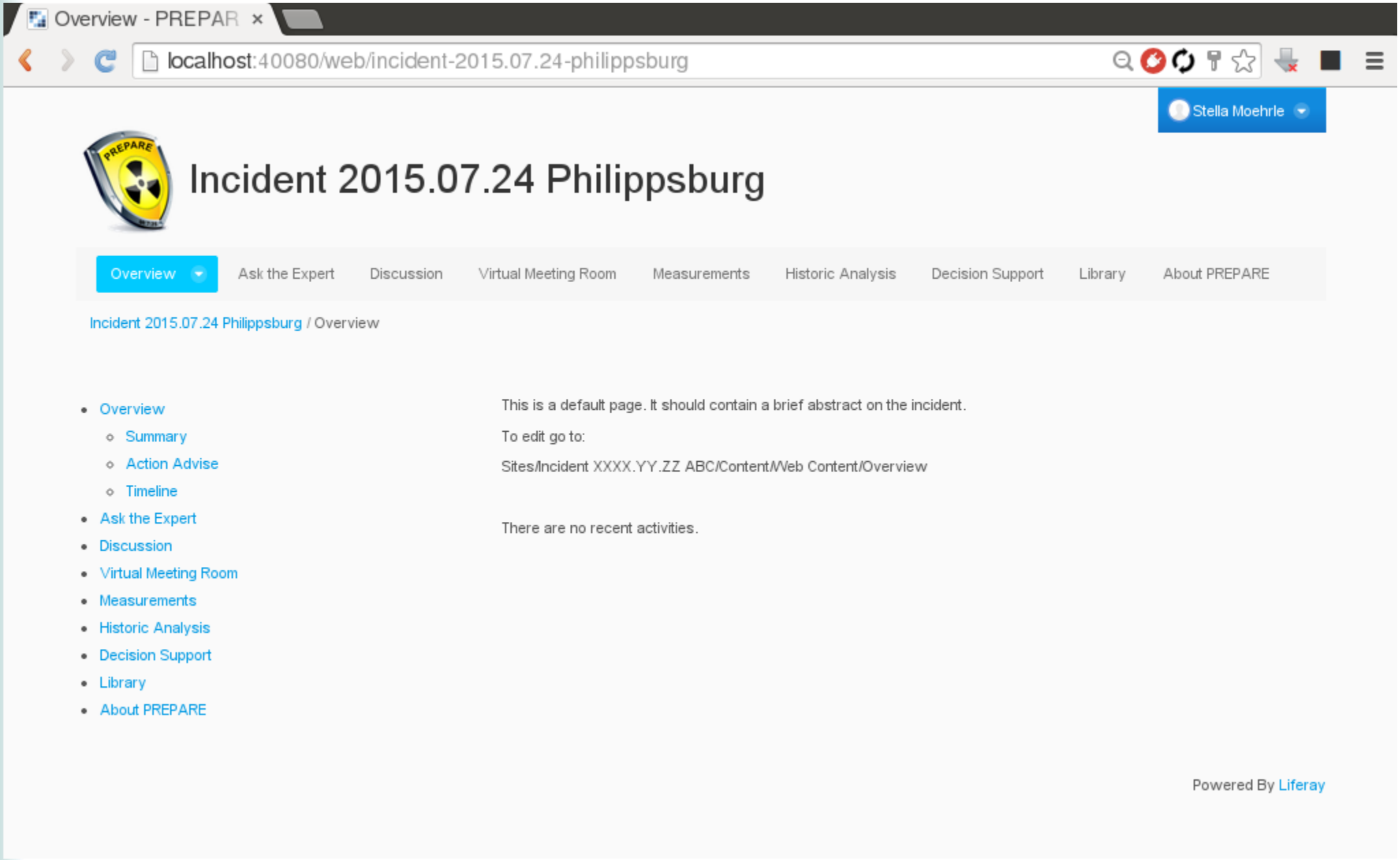
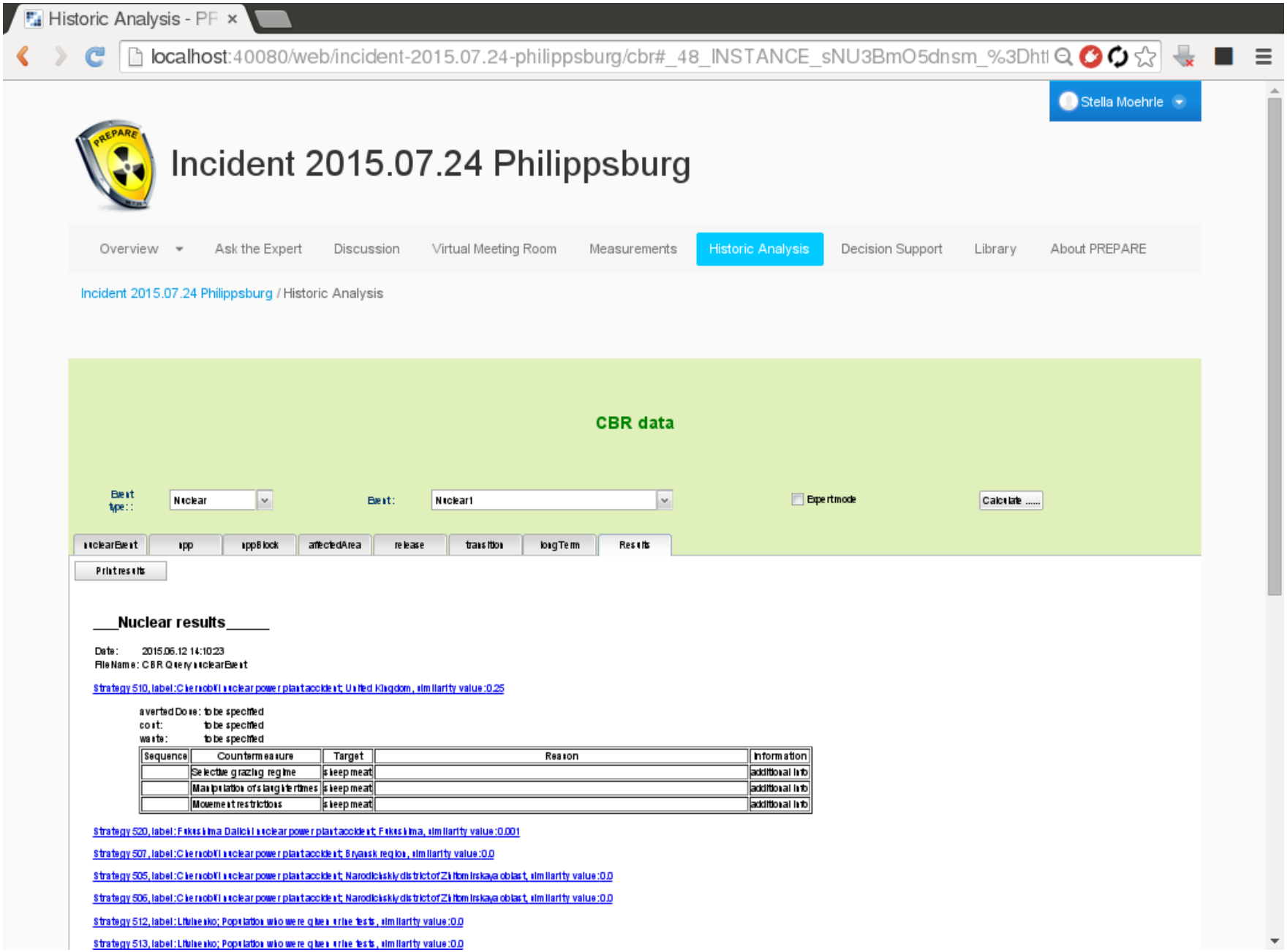


The scenario module



General objectives:

- Investigate the conditions and means for **pertinent, reliable and trustworthy** information to be made available to the public **in due time and according to its needs** in the course of nuclear emergency and post-emergency contexts
- Taking into account **complexity and dynamic dimensions** of information flows
- Grounding on on the **empirical analysis** on the dynamic of information related to the Fukushima experience (in Japan and Europe) but also on other available experiences in the EU

3 areas of focus:

- Emergency & post-emergency **expertise networks interactions**
- Information & participation of **affected populations**
- Evaluation & improvement of **global communication (media)**

Important points identified

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- Bringing in valuable input from **Japanese colleagues** as their testimony is unique and mostly needed to develop experts preparedness in Europe
- Stimulating exchanges of experience and discussions on **experts responsibility and public confidence, experts collaboration** to manage complexity, or effective networking in practice
- Analysis of the use of traditional and social media conducted
  - To support efforts to provide an effective public communication about nuclear or radiological emergencies
  - To identify differences in media reporting about the same nuclear event and with similar radiological consequences in different countries
  - To identify the factors influencing media reporting about a nuclear emergency
- Support the engagement of experts in the Analytical Platform
  - Interviewing experts
  - Defining means for engagement

Summary

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- Work in PREPARE is driven from the observations during and after the Fukushima incident
- PREPARE integrates 45 partners from universities, research organisations, operational emergency management centres, industry and NGOs
- Work is part of the Strategic Research Agenda (SRA) of the NERIS Platform, but the SRA is much wider and contains more tasks
- PREPARE is a step forward in harmonisation of emergency management and rehabilitation preparedness in Europe
- Important to assure that the products are applied by end users and for new products (Analytical Platform) end users are identified
- Communication and interaction with stakeholders is crucial and work in this area has to be intensified and better linked with technical tools

Thank you very much for your attention

Questions?