



Modelling crisis management for improved action and preparedness

CRISMA-wave: application solution for mitigation actions against Coastal Submersions and Flooding

CRISMA Business Day

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- **The Offer:**
 - Simulation and Decision support system for preparedness planning in coastal submersion (incl. tsunami) and in-land flooding;
 - the offer comprises a CRISMA-wave kernel with standard functions and a range of options

- **The targeted market(s):**
 - Clients/users:
 - Public Authorities at local, regional, national and cross-border levels,
 - Professional organizations of the civil security
 - Insurance companies
 - Engineering companies

 - Geographical area: Europe

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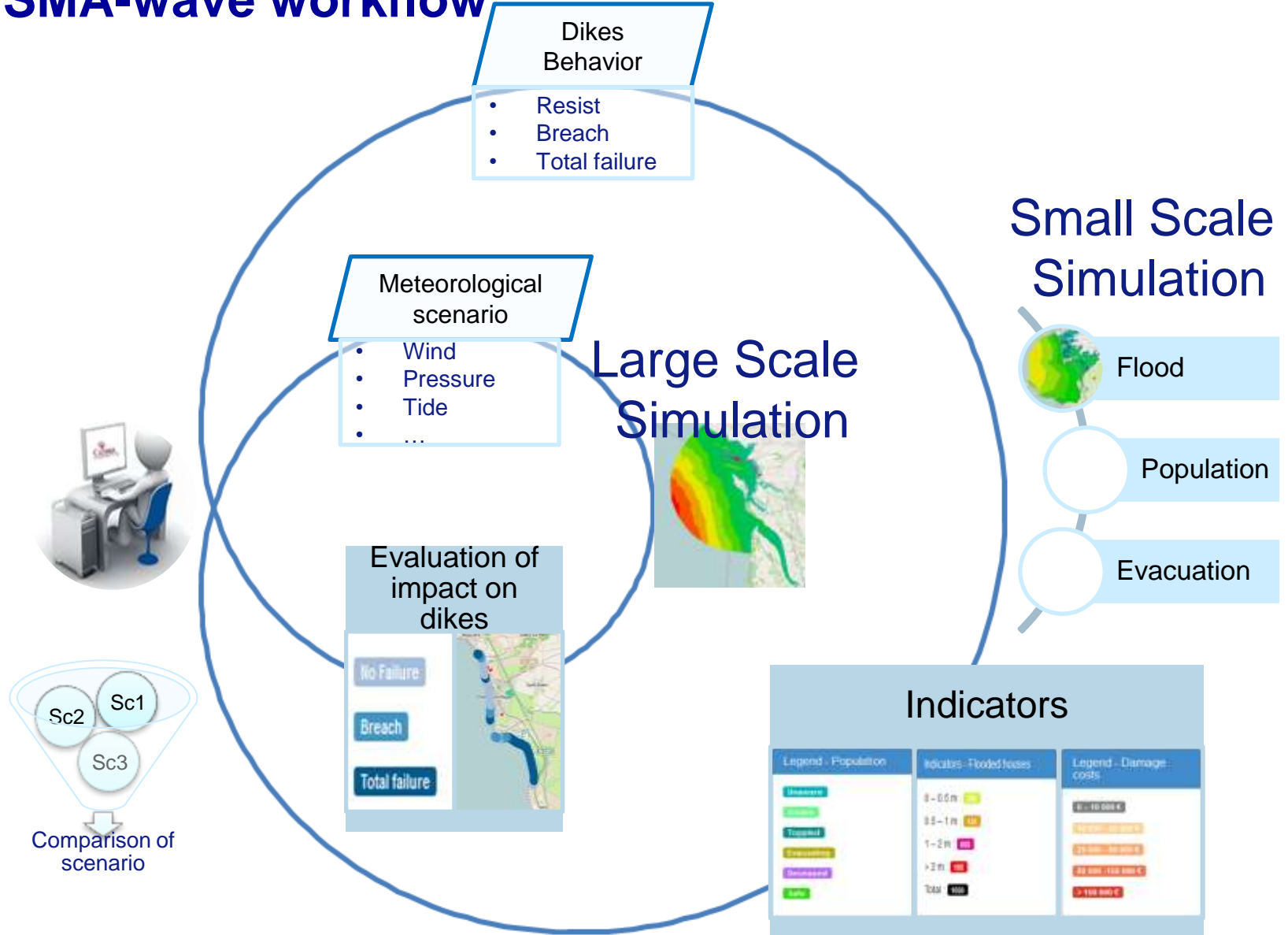
- **Key functions of the kernel solution:**
 - Access pre-computed scenarios on a regional and local models to simulate the modification of the defense works (dikes) behavior (by introducing breach or total failure) and evaluate the potential direct damages
 - Compare the evolution of protective works and damages depending on hazard scenarios
 - Analyze a first range of basic economic indicators of potential damages and rank the scenarios with a Multi-Criteria Analysis function.
 - Simulate the coastal submersion and in-land flooding effects at different temporal and spatial scales
 - Elaborate the preparedness plans

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■ Options:

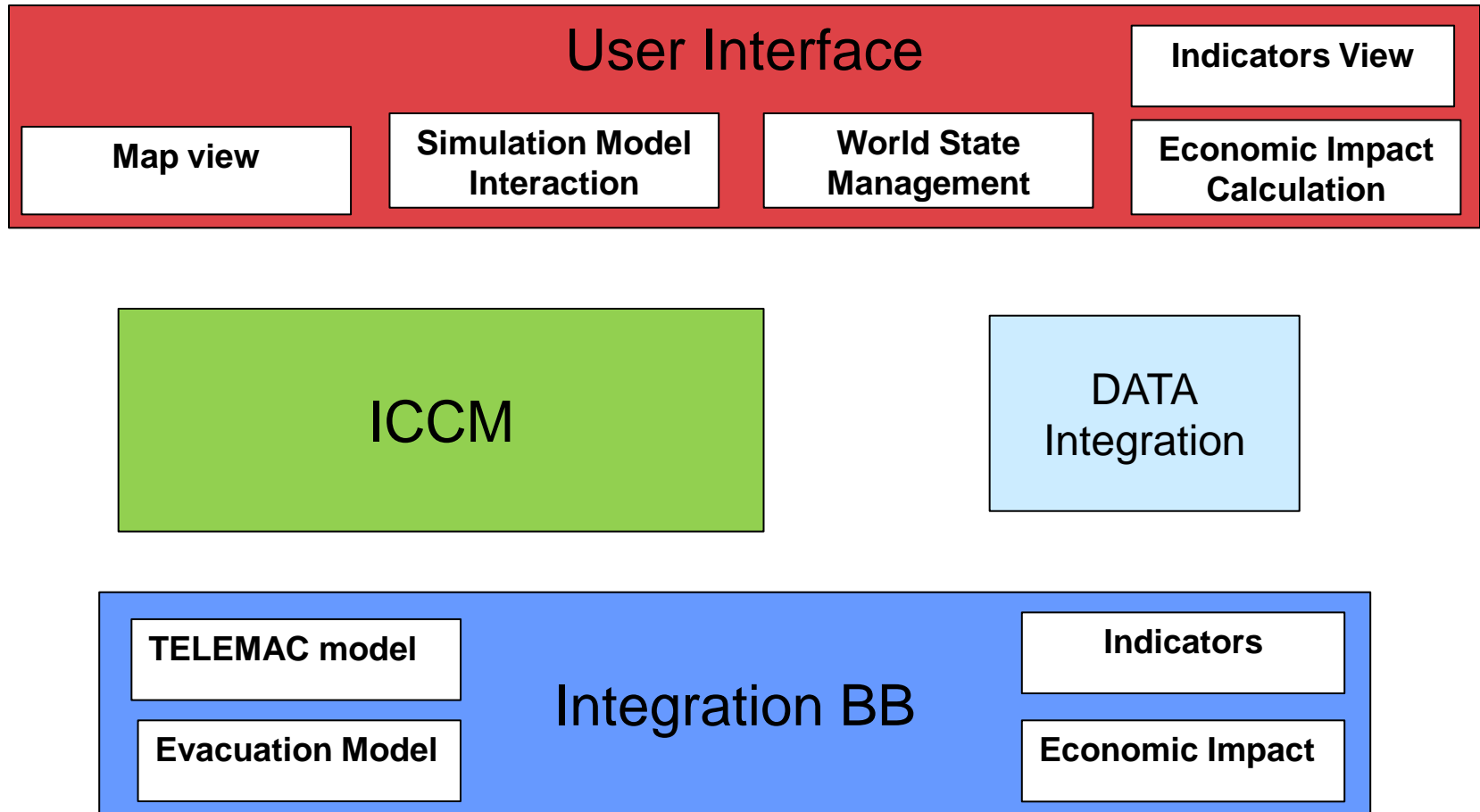
- Simulate the evacuation scenarios using Life Safety Model
- Running simulation with modified parameters for the hydrodynamic model
- Defining additional indicators (human health, environment, cultural heritage, economy) and analyzing scenarios results using the Multi-criteria Analysis function for ranking
- Model the population exposure using DynaPop model

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- Global Architecture diagram:



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- **Prerequisites:**

- User only needs an Internet connection to access the Service Platform

- **Added-Value on the market:**

- Integrated approach and platform allowing the use of SaaS, which includes maintenance and update of the data
- A real decision support to the competent authorities for a long-term planning of the Plan of Actions related to the implementation of the Flood Directive
- Advanced direct damage evaluation and Multi-Criteria Analysis functions

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- **Conditions of the Offer:**

- Business approach: two solutions are offered
 - System delivery: a tailor-made IT system is installed at the customer premises
 - Service Platform: the user accesses the required services and products through a web platform located at Spacebel premises
- Access conditions: depending on the solution implemented
 - System delivery: not available until high maturity level is reached (target: 2020)
 - Service Platform: for the use of the kernel, annual subscription fee = 5 to 10 K€ ; in addition, support and expert services on demand (cost + fee)

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- **Conditions of the Offer:**
 - Additional services:
 - Training courses
 - Technical support to create and tune the models
 - Consulting service to improve the use of the functions
 - Consulting service to develop tailored functions

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- **Demonstration material:**

- A demonstration platform, similar to the operational “CRISMA-wave” platform, enables a guided experience with the “CRISMA-wave” solution; the demo material is based on the Charente-Maritime Pilot and is accessed through a web portal located at Spacebel

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