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RAINBO

RainBo Platform

GUIs Mockup

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Comune di Bologna

lepidaspa

arpae emilia-romagna

NIER INGEGNERIA

MEEO Meteorological Environmental Earth Observation

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Document Summary

The present document summarizes the results of the RainBO project concerning the Task2 - RainBO system GUI" of the Action C3.
The purpose of the Action C3 is the study, design and implementation of the prototype of RainBO software platform starting from the requirements resulted as outcome of the Action C1 and provided in the deliverables "Collection of user needs and review of the state of the art" and "RainBO specification of requirements".
In particular, the Task2 of the Action C3 aims at designing GUI for RainBO platform, allowing interaction between users and implemented databases and modules.

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1. Introduction

The RainBO GUI is based on Web Technologies and on Geographic Information System (GIS) and allows interaction between users and implemented database and software modules.

The GUI provides the use of the platform in both OFF-LINE and ON-LINE modes and in order to develop a configurable platform, allows setting parameters to configure software modules and functionalities, and to insert and update data.

Annex 5 - RainBO_mockup_01.pdf provides the GUIs mockup of interface, explained in the following paragraphs of this document.

2. Authenticated access

RainBO access requires authentication that is necessary also for the user profiling

3. Main page

The main page shows Emilia-Romagna region map and the municipality that use and share RainBO Platform, at the moment Bologna and Parma, partners of the project.

4. Main menu

The main menu is divided into three sections:

- sensors
- maps
- historical event

4.2. Sensors

The data relating to the sensors are divided into four further sub-menus, depending on their different nature:

- observed data
- estimated data
- forecast data
- crowdsourcing

The data related to the various sensors can be overlapped and compared both geographically and temporally, as they refer to the same map and the same time base.

4.3. Maps

The maps menu allows the consultation of vulnerability, hazard and risk maps.

4.4. Historical event

The maps of past events allows georeferenced consultation of past events and their impacts over the territory

5. Layers

Territorial data are made available through a serie of layers that has the same structure of the data model of the Territorial Data Model (See Annex 2 - Territorial Data Model) .

6. OFF-LINE mode

In OFF-LINE mode, in addition to displaying all the data and maps available, it is possible to modify some data, some configuration parameters of the modules and simulation and insert new information, through the corresponding menus:

- Modify spatial data: allows the modification and updating of the attributes relating to spatial data (eg: contact person, telephone number, etc.)
- Historical event: allows the insertion of new events and related indicators and reports
- Simulation: allows the simulation of the level of vulnerability, of the hydrometric levels and of the scenarios, by modifying the corresponding parameters.

7. ON-LINE mode

During the alert, the sensors that indicate the achievement of critical river thresholds and the corresponding area of interest are highlighted. It is also possible to select the reference scenario according to the expected level of the river among all those available coming both from the flood directive and from the historical archive. The aforementioned functionality is provided for both the Ravone stream, through the 3D simulation model, and for the Parma river, through the RandomForest model. The definition of the scenario makes it possible to determine the expected risk maps that constitutes the support for the activation of the emergency plan.

Annex 5 - RainBO_mockup_01.pdf