

A new approach to enhance the involvement of stakeholder's through the collaborative FloodServ platform in flood risk management

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Floods are extreme events that appear a lot more often nowadays and are becoming a severe problem considering their effects. Studies and hydraulic models show that the intensity and frequency of such events will increase due to climate change, increasing thus the extent of their effects.

In order to improve the knowledge on the effects of floods and to minimise the damage, a European team of experts are implementing the Horizon 2020 project, Flood-Serv (Public FLOOD Emergency and Awareness SERVICE). Within this project, IT specialists, researchers and flood risk management practitioners are collaborating to develop the FLOOD-serv System, a multicomponent, integrated, pro-active and personalised citizen-centric public service application that will enhance the involvement of the citizen and will harness the collaborative power of ICT networks (networks of people, of knowledge, of sensors), to raise awareness on flood risks and to enable collective risk mitigation solutions and response actions. For a better approach, the project tests the services in five "pilot cities" in five countries. One of the piloting areas, Danube Delta, will use the platform in the management of future floods.

The platform is build based on a complex user requirements assessment process collecting information about flood risk models based on the EU Floods Directive, flood scenarios, GIS Data, new sensor data, legal and socio-economic information, and the concrete needs and work processes of partner cities. The FLOOD-serv System is in the process of testing/piloting for verification and validation in a three-stage procedure. The final form of the platform and its' components will support and improve the flood risk management in the test areas and will also provide vital information on long term monitoring of relevant sensor data. For Danube Delta, the use of ICT Tools and stakeholder feedback improves the sustainable development in the protected area.

Keywords: flood risk Management, Danube Delta, , flood awareness; decision support systems.