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INTEGRATION OF DATA FOR LAND MONITORING

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Use case statement
Integration of data for land monitoring activities
Key Digital Technologies and Actors
Smartphone, management software, database, instant messaging apps, email. Data providers, technicians, managers, CDB, farmers, citizens and associations.
Keywords
Hydrogeological risk management, land reclamation, database, participation, P.A.
More info: Living Lab Toscana Nord (Italy)

The co-designed technology aims at supporting the work of the local public authority *Consorzio di Bonifica Toscana Nord* (CDB), which deals with land and water management.

The system's objective is to improve the efficiency of hydrogeological risk management in the rural areas under CDB's jurisdiction by enhancing both monitoring and maintenance of the territory thanks to improved communication among the actors involved in this process. The system is based on a web application that integrates data from different sources.

This is achieved through multiple integrated digital technologies [●] and the involvement of different actors [●]. The goal is to **correlate climatic events with maintenance interventions** by using climatic data collected by external **data providers** in **databases,** then used by **CDB's technicians**. Also, **to involve farmers and associations in monitoring the hydrographic network** by connecting them with **technicians** through a digital **interface. Lastly, to improve communication i) within CDB** through an **application** - based on a monitoring **dashboard** – to improve data exchanges among **technicians** and **managers**, **and ii) with citizens** thanks to a **smartphone** application collecting intervention requests to CDB staff (**technicians** and **managers**) that, in turn, keeps track of such request on **management software**.

What may drive the use of this tool are the increasing damages due to adverse effects because of climate change, the need to improve work efficiency within CDB, and the availability of additional resources by both national and local governments for the development of digitisation. The main positive impacts are the improved control of the territory and a consequent reduction of the hydrogeological risk, the involvement of a larger number of actors at different levels, and better management of financial resources within CDB. On the other hand, obstacles to its development may be the management costs of digital tools, and the low incentives for private actors to invest in such a context.

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