



PRACTICE ABSTRACT

Digitalisation: Needs and Impacts

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DIGITAL TECHNOLOGIES TO REDUCE HYDROGEOLOGICAL RISKS IN ITALY

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The Living Lab Toscana Nord focuses on the **use of digital technologies for ordinary land management in rural areas with the mountain landscape**. The area identified is classified for the 70% with a **high hydrogeological risk**. The structural fragility of the area, characterised by distance to essential services, has determined a long-term process of **depopulation, ageing of population** and loss of key functions. **Agriculture** is a key economic activity.

A constant monitoring of water streams can contribute to reduce hydro-geological risk. The Reclamation Consortium "Toscana Nord" gives an **important and active role of farmers and citizens** in the alert system and involves farmers in the maintenance works of water streams. Small farms in mountain areas consider this activity relevant to complement their income.

The main aim of the Living Lab is to **identify opportunities to use digital technologies** to improve this process and enlarge the group of farmers involved in ordinary land management.

There are several actors involved in this process (*Reclamation Consortium, Tuscany Region, Public institutes, Municipalities, Farmers, Citizens and Associations*) who with the help of technology are oriented to pay attention to the main physical entity: *the territory*. Digital tools are today largely used by the Reclamation Consortium to facilitate the work of ordinary land management, including *WhatsApp/email, platform, software, databases, sensors/drones*. **Four main functions** have been identified clustering the technologies mentioned by local actors during interviews and workshops of the DESIRA projects: **Communication, Mapping and Planning, Integration of data and data management, monitoring and study of the territory**.

Living Lab

Living Lab "Toscana Nord"

Key Digital Technologies

Messaging apps/email, platforms, software, databases, sensor/drones

Keywords

Marginal rural areas, ordinary land management, land monitoring, farmers/citizens participation, e-governance, rapid intervention

More info: <https://desira2020.eu/tuscany-italy/>



The main impact of digital technologies in ordinary land management is the possibility **to reduce the time to transfer information from the land to the public authorities to allow a more rapid intervention when needed**. In particular, the communication function can improve the quality of the alert system and the data management function can facilitate the interaction among actors at different levels.

