

# Environmental and social impact

## Sustainability and digital Inclusion

- Reduction of water waste and energy consumption
- Better disaster preparedness and community resilience



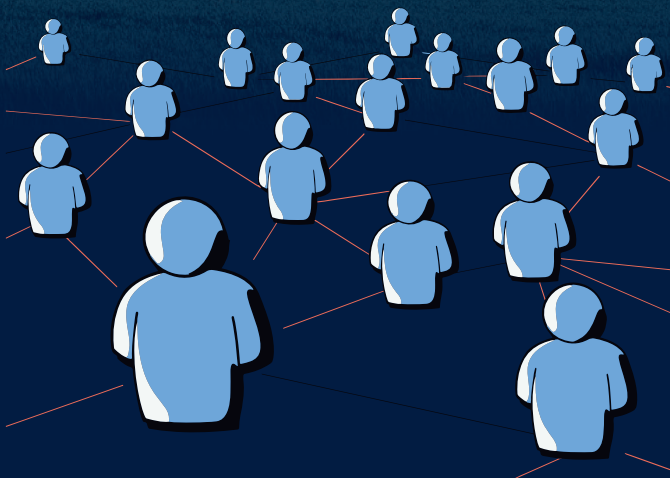
## European model for smart rural communities

- An innovative concept of dynamically providing and withdrawing coverage in uninhabited areas as needed
- The project aims to set a model for rural areas across Europe, showcasing how 5G can revolutionize public services and infrastructure

# Get in touch



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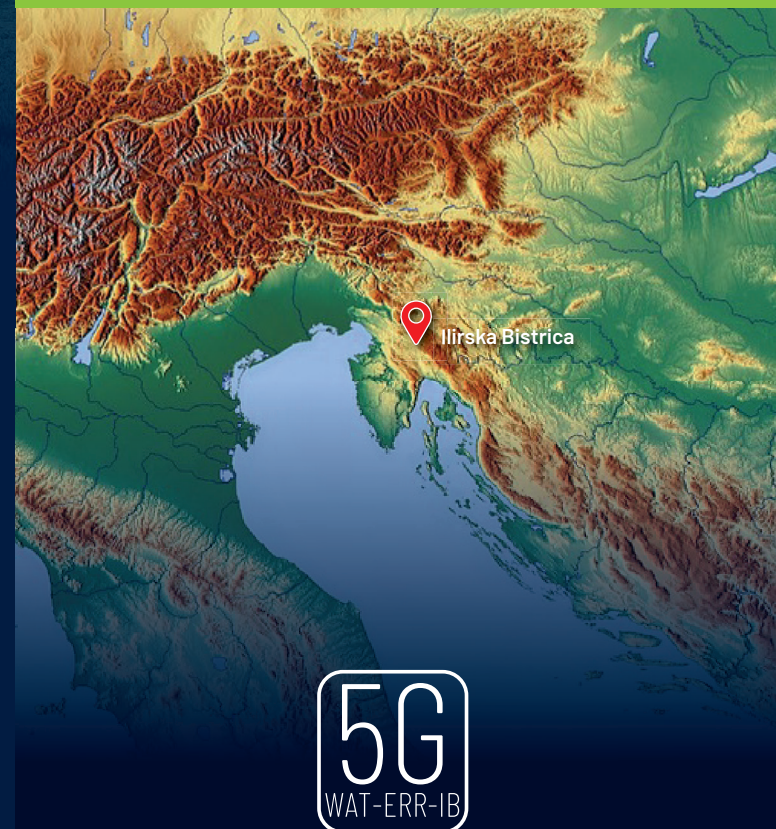
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# 5G

for WATER supply management and  
Emergency Response and Recovery  
for Ilirska Bistrica smart municipality  
(5G WAT-ERR-IB)

Empowering smart communities  
with 5G Infrastructure



## About the project

Municipality of Ilirska Bistrica faces challenges in water supply management and emergency response due to its mountainous terrain and rural structure. Our project leverages 5G infrastructure and IoT technology to enhance these public services, ensuring efficiency, sustainability, and safety.

### Key facts and figures

- Location: Ilirska Bistrica, Slovenia
- Duration: 26 months (2025 – 2027)
- Project partners: Vahta, Municipality of Ilirska Bistrica
- Budget: 4.9M EUR (EU grant: 3.7M EUR)
- 5G network: private 5G standalone (SA), extended reach with LoRaWAN

## Use cases and benefits

### Smart water supply system

- Deployment of IoT sensors for real-time monitoring of water flow, pressure, and quality
- Remote management of pumps and valves
- Reduction in water losses by 5%, optimizing energy use and minimizing waste
- Improved efficiency of water infrastructure maintenance, with reduced energy losses, lower consumption, and enhanced crisis response

### Emergency response and recovery

- Temporary coverage of uninhabited areas with mobile 5G base stations for connectivity in cases of emergency response
- Drone with 5G connectivity for aerial monitoring and real-time thermal imaging
- Faster coordination for firefighting, flood response, and search-and-rescue missions

## Technology and innovation

### 5G infrastructure overview

- Fixed base stations in inhabited areas to expand connectivity
- Mobile 5G units for temporary coverage in emergency situations
- Edge computing for real-time data processing



### Why 5G?

- Ultra-fast and reliable connectivity
- Slicing allows for higher security
- Scalability for other use cases