



### Organizers

- Research Centre on Scientific and Technical Information (CERIST)
- University of Medea
- Directorate-General for Civil Protection (DGPC)
- Directorate-General for Scientific Research and Technological Development (DGRSDT)

### Important dates

- call for projects  
30/11/2023
- Opening of preregistration and project submission  
14/12/23
- Closing date for submissions  
18/01/2024
- Preselection  
01/02/2024
- Schedule of the Hackathon  
March 04-06, 2024

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### Call for projects

In the face of a changing world, disasters, whether natural or man-made, remain one of the most pressing threats to the safety and well-being of communities. Forest fires, floods, devastating earthquakes, pandemics (Covid-19), industrial accidents, and many other tragic events regularly test our ability to prevent, respond to, and recover from them. In this context, technological advances play a crucial role in improving our ability to cope with disasters. Monitoring, communication, and crisis management technologies help strengthen our ability to anticipate disasters, coordinate our response efforts, and accelerate the process of resilience.

In each phase of a disaster, technologies can be exploited. For example, in the pre-disaster phase, technologies can be used to monitor weather conditions, detect natural disaster risks and improve infrastructure design. Early warning systems can also be useful in alerting people of the risks of natural disasters before they occur. During crises, technologies can be used to facilitate the coordination of relief, locate victims, determine needs, etc. Finally, in the post-crisis phase disaster, technologies such as drones can be used to provide medical assistance in disaster-affected areas, and other technologies such as virtual or augmented reality can serve to train and prepare first responders to deal with emergency situations.

From this perspective, and as part of the ***national study days on the perspectives of Algerian Civil Protection to adapt to modern scientific and technological developments***, the CERIST (Research Centre on Scientific and Technical Information), in collaboration with the Algerian Civil Protection, the University Yahia Farès of Medea, and the DGRSDT (Directorate-General for Scientific Research and Technological Development) is organizing the ***Himaya Innov'days 2024 Hackathon***. This initiative is part of the commemoration of the World Civil Defense Day, observed each year on March 1st.

### Hackathon Objectives

- Drive innovation by bringing together creative minds to solve complex disaster management problems;
- Foster interdisciplinary and cross-sectional collaboration to develop innovative solutions for emergency situations;
- Develop functional prototypes and practical and operational ideas to address the specific challenges of disaster management;
- Create an environment conducive to learning, experimentation and development of concrete and functional solutions dedicated to disaster management;
- Encourage entrepreneurship and advance ideas and support initiatives that have a positive impact on society in the field of civil protection.

### Technologies of interest

- Artificial Intelligence (machine learning, deep learning, generative AI, etc.);
- Mobile applications and digital platforms for coordination and communication between disaster management actors;
- Advanced networks: IoT, 5G, ad hoc networks, remote sensing, etc;
- Geographic Information Systems (GIS);
- Open Source/Open Data/Open Innovation;
- Social networks, sentiment analysis and crowdsourcing;
- Evacuation and rescue systems;
- Big Data Analytics and Data Mining ;
- Virtual Reality/Augmented Reality/Extended Reality;
- Simulation of the effects of natural and technological disasters (forest fires, floods, earthquakes, technological hazards, etc.);
- Disaster modeling and simulation;
- Autonomous vehicles (drones) and robots;
- Remote Sensing and Satellite Imagery;
- Early warning systems;
- Digital twins.