University of Rijeka,
Faculty of Maritime studies

PROJECT ACRONYM AND TITLE: FRED – Fire Free MED

FUNDING PROGRAMME: Interreg MED

PERSON RESPONSIBLE: Neven Grubišić

FINANCIAL DATA

Project total cost	Overall funding assigned to PFRI
2.400.000,00 EUR	408.000,00 EUR

SUMMARY

The FRED project focuses on preventing and mitigating climate change impacts in the form of wildfires. The overall objective of the FRED project is to implement advanced ICT/UAS (Unmanned Aircraft System) remote sensing tools for climate change adaptation, disaster risk prevention, and mitigation in the wildfire segment. The project will increase the prevention capacity of relevant authorities at six piloting areas in different countries and indirectly connect beneficiaries through capitalizing results. The FRED project tackles the common challenge of adaptation to and mitigation of climate change impacts - very strong wildfire events - in the following manner: a) by providing a prevention tool – dynamic fire risk maps (based on fuel maps + other data such as anthropogenic impact, phyric history, meteo, etc.), b) by providing a mitigation tool for unfortunate events when the fires do break out, shortening the reaction time (by early warning functionality) and minimizing the damage to human life and the economy, c) The mitigation factor lies in the operational value of the UAV support (line of fire identification, men tracking, search and rescue, fire propagation model to support operational decision-making, hotspot detection in post-fire terrain maintenance etc.), d) by providing a pool of data for subsequent analysis of the scientific community; the solution implemented in FRED offers an aggregate data pool and UAV use cases., e) by providing a communication tool for the general public. All the above aggregated in one spot - "Wildfire risk prevention and mitigation platform" supported by UAV, the new solution in its form, functionality, methodology, and process. Wildfire risk prevention and mitigation platform is an ICT and remote sensing supported software for aggregation, processing, and georeferenced visualization of relevant data. Its functionalities are prevention (dynamic fire risk maps, early warning, hotspot detection), mitigation (georeferenced UAV-supported operation, line of fire, access overview, object detection, men tracking, dynamic fire propagation simulation, post-fire terrain surveillance), communication and scientific. The project will test a fire danger index which is based not only on the potential fire behavior but will also integrate anthropogenic activity.

Start date	End date
01/01/2024	01/10/2026

WEBSITE: -