CROATIAN METEOROLOGICAL AND HYDROLOGICAL SERVICE D H M Z

http://meteo.hr Twitter: @DHMZ_HR

ANNUAL REPORT 2020/2021

Dr Branka Ivancan-Picek Director General and PR of Croatia with WMO



Resources and legal framework

- DHMZ activities under the vigilance of the Ministry of Economy and Sustainable development
- Law on meteorological and hydrological activities in the Republic of Croatia – (in force from July 2019)
- \Box ~ 360 employes
- ☐ Total budget (~13 M€)
- □ **The Agreement** between the Government of the Republic of Croatia and the WMO on the legal status and functioning of the WMO Project Office in Republic of Croatia (Sept., 2020)
- Implementation Programme 2021 2024 (modernisation of the observational network, upgrade of the warning system, improvement of climate services, new headquarter in Zagreb and marine meteorological centre in Split, strengthening of research and development)



Earthquake 22 March 2020

severely damaged DHMZ`s headquarter





IT infrastructure survived







more info: ECMWF newsletter 164 (2020)



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Modernization of the National Weather Observation Network in Croatia – METMONIC

The key components of the project are:

Modernization and *improvement of surface meteorological measurements*

Modernization and *improvement of upper-air meteorological measurements*

Modernization and *improvement of the meteorological radar network*

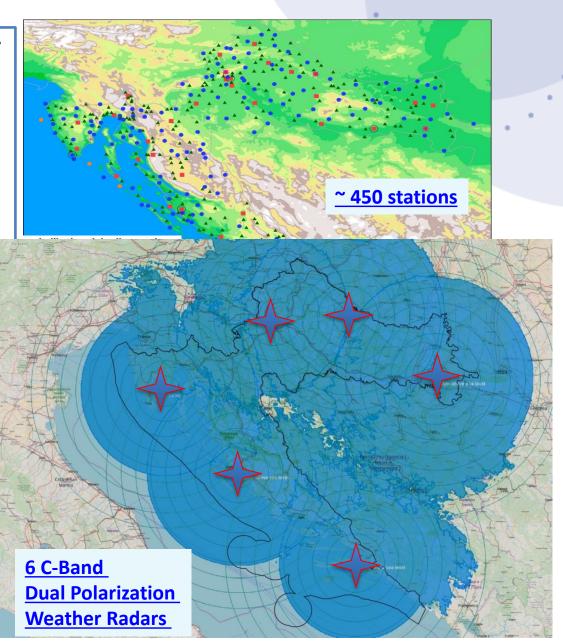
Establishment of a measurement system of *meteorological-oceanographic buoys*

Enhancement and modernization of the system for receiving, processing, controlling and storing data and ensuring *data availability*

Improvement of the meteorological *calibration laboratory*

Improvements in monitoring of **trace elements** in the ecosystem

~ 45 mil EUR



Expansion and Modernization of the National Network for Continuous Air Quality Monitoring – AirQ

The key components of the project are:

Modernisation of *air quality measuring stations*

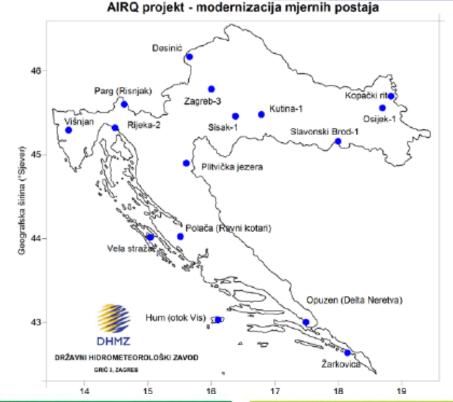
Establishment of *air quality modelling system*

Acquisition *of laboratory equipment* for analysing chemical content of the atmosphere, aerosols and precipitation

Acquisition of *equipment for ensuring traceability and quality of measurements*

Upgrading of IT infrastructure

~ 15 mil EUR









VEPAR Project - Improvement of Non-Structural Measures of Flood Risk Management in the Republic of Croatia

The key components of the project are:

Systematize the missing information related to catchments and watercourses

Modernize and upgrade the **hydrological stations**

Develop or improve flood forecasting models

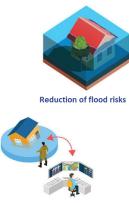
Improve the study of flood risk management

Acquire the **necessary equipment** for more efficient operational flood protection

~ 33 mil EUR (Croatian waters and DHMZ)

PROJEKT OBJECTIVES:

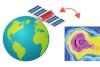
Improvement of monitoring, analyses and design of optimum solutions for integrated and sustainable management of water, aquatic environment and flood risk in Croatia



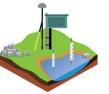
Improved monitoring and analysis

of water, aquatic environment

and flood risks



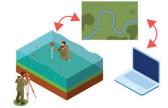
Development of flood forecasting systems





Modernisation and extension of the network of hydrological stations

Educating and informing the public



Collection of data about basins, watercourses and water protection structures

EUROPSKI STRUKTURN

I INVESTICIJSKI FONDOVI



Procurement of equipment needed for the implementation of measures











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End of projects 2022/2023 Realisation:

- BullSequana XH2000 supercomputer
- 6 C Band Dual Polarization radars Vaisala
- 5 meteorological-oceanographic buoys
- 2 wind profilers Scientec, LAP3000 1290 MHz
- 3D Scanning Lidar: Vaisala (Leosphere), WINDCUBE 100S
- Microwave radiometar MP3000A
- Equipment for 24 air quality station







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Thank you!



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