

AIRQ – Expansion and Modernisation of the National Network for Continuous Air Quality Monitoring

STRATEGIC PROJECT SUMMARY



REPUBLIKA HRVATSKA
Ministarstvo regionalnoga
razvoja i fondova Europske unije



EUROPSKI STRUKTURNI
I INVESTICIJSKI FONDOVI



Operativni program
KONKURENTNOST
I KOHEZIJA



Europska unija
Zajedno do fondova EU



FOND ZA ZAŠTITU OKOLIŠA I
ENERGETSKU UČINKOVITOST

BASIC INFORMATION

The purpose of the project “AIRQ – Expansion and Modernisation of the National Network for Continuous Air Quality Monitoring” is to improve and optimize the system for managing and monitoring air quality in urban areas, zones and agglomerations. The project aims to support the implementation of the legislative framework for air quality and environmental protection (Directive 2008/50/EC, Air Protection Act (Official Gazette 130/11, 47/14)). This entails developing integrated strategies and projects which enable the evaluation, planning and implementation of adequate procedures for controlling air quality by means of measuring relevant parameters. In the end, the project thus aims to improve the monitoring programme for short-lived climate forcers (SLCF) and introduce climate-sensitive measures against air pollution.

Such modernisation is necessary for the following reasons:

- Meeting the requirement for a minimum number of measurement stations in zones and agglomerations.
- Meeting the obligation to set up EMEP measurement stations (levels 1 and 2), meeting data quality requirements – replacing non-type-approval equipment with type-approval equipment (for the pollutants for which type-approval equipment exists).
- Ensuring minimum data coverage.

OBJECTIVES

- Increasing the percentage of the population covered by air quality data in urban areas.
- Upgrading existing air quality measurement stations and building new ones.
- Developing an operational model for the evaluation of ground-level pollutant concentrations.
- Equipping the DHMZ laboratory for analysing the chemical composition of precipitation and air.
- Equipping the IMI chemical laboratory for analysing the chemical composition of particulate matter.
- Equipping the calibration laboratory for calibrating air quality standards and related measures, so as to ensure the traceability of the said measurements to international measuring standards.
- Upgrading the DHMZ computer infrastructure

SUMMARY

PROJECT NAME:

AIRQ – Expansion and Modernisation of the National Network for Continuous Air Quality Monitoring

PROJECT NUMBER: KK.06.2.1.02.0001

FUNDING INSTRUMENT:

European Regional Development Fund, Environmental Protection and Energy Efficiency Fund (FZOEU)

TIMEFRAME: 48 months

BUDGET: EU 106.354.975 HRK
FZOEU 18.768.525 HRK

TOTAL: 125.123.500 HRK

PARTNERS

LEAD BENEFICIARY: Meteorological and Hydrological Service (DHMZ)

PARTNER: Institute for Medical Research and Occupational Health (IMI)

MANAGEMENT BODY: Ministry of Regional Development and EU funds

INTERMEDIATE BODIES:

PT1: Ministry of Environment and Energy
PT2: Environmental Protection and Energy Efficiency Fund

MANAGEMENT STRUCTURE

Project Director:

Cleo Kosanović, PhD, DHMZ

Deputy Project Director:

Jadranka Škevin Sović, MSc, DHMZ

IMI Project Coordinator:

Gordana Pehnec, PhD

IMI Deputy Project Coordinator:

Ranka Godec, PhD

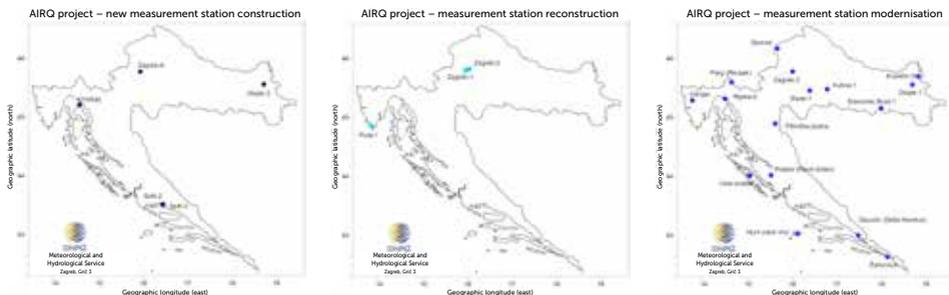
EUROPEAN REGIONAL DEVELOPMENT FUND

FUNDING DECISION within Operational Programme Competitiveness and Cohesion 2014–2020, specific objective 6e1 – Upgrade of air quality management and monitoring system according to Directive 2008/50/EC

ESI FUNDS STRATEGIC PROJECT

METEOROLOGICAL AND HYDROLOGICAL SERVICE

AIRQ project includes purchasing 5 new continuous air quality monitoring stations and reconstructing the 19 existing ones.



NATIONAL NETWORK FOR CONTINUOUS AIR QUALITY MONITORING



Air Quality Measurement Station Varaždin-1



Ozone analyser testing in a lab



Air Quality Measurement Sector's workshop

DHMZ CHEMICAL LABORATORY

By equipping its chemical laboratory, the DHMZ ensures that the obligations specified in the EMEP protocol of the Convention on Long-Range Transboundary Air Pollution (LRTAP Convention) are met. Implementing this project means establishing an integral air quality control system that is compliant with all European and national criteria regarding environmental protection and human health. In order to meet the obligations arising from the LRTAP Convention, we plan to keep the measurement programmes at the existing EMEP stations and upgrade one measurement station to a level-2 programme.



Ion chromatograph and gas chromatograph

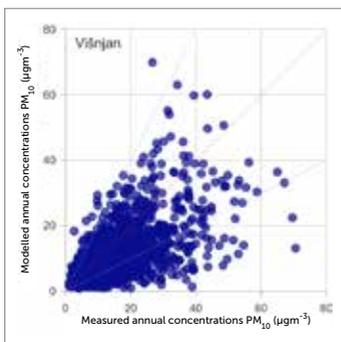
DHMZ CALIBRATION LABORATORY

By equipping the calibration laboratory for calibrating air quality standards and related measures, we will ensure the traceability of the said measurements to international measuring standards.

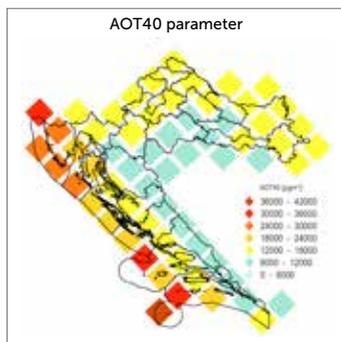


MODELLING

Establishing an air quality modelling system includes developing a model for calculating the ground concentration of pollutants in a spatial grid with 0.1 x 0.1 degrees of longitude and latitude. This model provides data required to evaluate the pollution level for the entire territory of Croatia, especially for the areas in which no air quality measurement exists.



Sample analysis of modelled values



IMI - INSTITUTE FOR MEDICAL RESEARCH AND OCCUPATIONAL HEALTH

Equipping the IMI chemical lab with instruments required to conduct chemical analyses of particulate matter will facilitate the implementation of the National Network Pollution Level Measurement Programme for Continuous Air Quality Monitoring (Official Gazette 103/14) in accordance with Directive 2008/50/EC.

IMI CHEMICAL LABORATORY



Inductively coupled plasma mass spectrometer (ICP-MS)



X-ray fluorescence spectrometer (XRF)



Particle matter sample weighing

The project was co-funded by the European Union from the European Regional Development Fund. The DHMZ is solely responsible for the content of this publication.



REPUBLIKA HRVATSKA

MINISTARSTVO ZAŠTITE
OKOLIŠA I ENERGETIKE



LEAD BENEFICIARY
Meteorological and Hydrological Service (DHMZ)



PARTNER
Institute for Medical Research
and Occupational Health (IMI)