

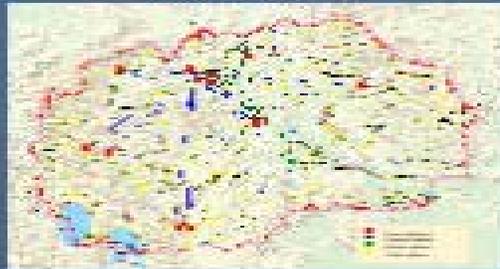


Air Pollution Monitoring System in the Republic of Macedonia

WHEN?

- 1997 - JICA - 4 monitoring stations
- 2002 - PHARE 99 - 3 monitoring stations
- 2004 - CARDS 2001 - 8 monitoring stations + 10 samplers
- 2006 - CARDS 2005 - Twining Project - Air quality improvement

State Automatic Monitoring System for Ambient Air Quality



Station	Address	Coordinates	Equipment	Start Date	Status
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Zones and Agglomerations for Ambient Air Quality in the Republic of Macedonia



WHY?

- Low air quality for quality improvement with Transboundary Impact Mitigation
- Compliance with EU air quality standards and other European legal acts, transposing European Directive 2002/31/EC, 2002/30/EC, 2004/107/EC
- Minimize air pollution and quality improvement locally (Transboundary Impact Mitigation, 2002/31/EC, 2002/30/EC)

In progress:

- 2007 - CARDS 2005
 - Subtask on ambient air quality from stationary sources
 - Subtask on ambient air quality measurement network
 - Subtask on the introduction of CO2 and SO2 monitoring for an industrial enterprise
- 2008 - CARDS 2005 - Twining
 - Subtask on the methodology for identification of ambient air quality measurement points and programme
 - Subtask on planning and financing
 - Subtask on the implementation of ambient air quality monitoring

WHAT?

Measured environmental parameters network

- CO - carbon monoxide
- SO2 - sulfur dioxide
- NOx - nitrogen oxides
- O3 - ozone
- PM10 - suspended particulate matter in air with diameter $10\ \mu\text{m}$

Measured meteorological parameters include:

- Wind velocity, expressed in m/s
- Wind direction, expressed in degrees
- Temperature, expressed in Celsius degrees
- Humidity, expressed in %
- Pressure, expressed in hPa
- Global radiation, expressed in Wh/m²



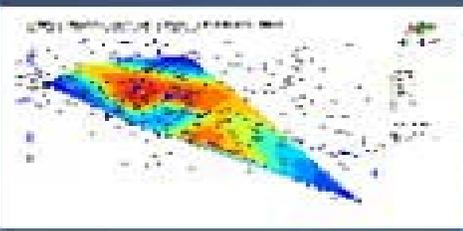
Data processing and information

- Daily submission about air quality to the authorities
- City Centre for Information and Warning - Monitoring Report from the State Automatic Air Quality Monitoring System
- Annual report of all government air quality data
- Development of popular resources on air quality
- Business Environmental Agency - BEA

HOW?



- 2002 (Data Acquisition system) software in each monitoring station
- Microsoft SQL
- 2005 (Data Acquisition system) software licensed edition



WHERE?

- Urban dispersion modeling
- Pollution dispersion from stationary pollutants
- Output results are geo-coded and can be added on a map as a different layer with real coordinates

