European Network on New Sensing Technologies for Air Pollution Control and Environmental Sustainability - *EuNetAir*

COST Action TD1105

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Network structure

Monitoring stations

Air Quality Monitoring Network (RNMCA) comprises 142 stations automatic air quality monitoring stations and 17 mobile:

- 24 traffic stations;
- 57 stations industrial;
- 37 type urban background stations;
- Type 15 suburban stations;
- 6-fund regional stations;
- 3 type EMEP stations.

A monitoring station provides air quality data that are representative of a certain area around statiei.Aria the concentration does not differ from the concentration measured at station more than a "specified amount" (+ / - 20%) is called " area of representativeness "

Station type traffic

- Evaluate the influence of traffic on air quality, (displays the map).
- Radius of the area of representativeness is 10-100m;
- Monitored pollutants are sulfur dioxide (SO2), nitrogen oxides (NOx), carbon monoxide (CO), ozone (O3), volatile organic compounds (VOCs) and particulate matter (PM10 and PM2, 5), (displays pollutants).

Industrial plant

- Evaluates the influence of industrial activities on air quality, (displays the map).
- Radius of the area of representativeness is 100m-1km;
- Monitored pollutants are sulfur dioxide (SO2), nitrogen oxides (NOx), carbon monoxide (CO), ozone (O3), volatile organic compounds (VOCs) and particulate matter (PM10 and PM2, 5) and meteorological parameters (wind direction and speed, pressure, temperature, radiant sun, relative humidity, precipitation) (display pollutants).

Urban station

- Evaluates the influence of "Follow the settlements" on air quality, (displays the map).
- Radius of the area of representativeness is 1-5 km;
- Monitored pollutants are sulfur dioxide (SO2), nitrogen oxides (NOx), carbon monoxide (CO), ozone (O3), volatile organic compounds (VOCs) and particulate matter (PM10 and PM2, 5) and meteorological parameters (wind direction and speed, pressure, temperature, radiant sun, relative humidity, precipitation) (display pollutants).

Suburban station type

- Evaluates the influence of "Follow the settlements" on air quality, (displays the map).
- Radius of the area of representativeness is 1-5 km;
- Monitored pollutants are sulfur dioxide (SO2), nitrogen oxides (NOx), carbon monoxide (CO), ozone (O3), volatile organic compounds (VOCs) and particulate matter (PM10 and PM2, 5) and meteorological parameters (wind direction and speed, pressure, temperature, radiant sun, relative humidity, precipitation) (display pollutants).

Regional station type

- Is the reference station for air quality assessment, (displays the map).
- Radius of the area of representativeness is 200-500km;
- Monitored pollutants are sulfur dioxide (SO2), nitrogen oxides (NOx), carbon monoxide (CO), ozone (O3), volatile organic compounds (VOCs) and particulate matter (PM10 and PM2, 5) and meteorological parameters (wind direction and speed, pressure, temperature, radiant sun, relative humidity, precipitation) (display pollutants).

EMEP station type

– Monitor and assess transboundary air pollution on long distance, (displays the map).
– Are located in the mountains at an average altitude: background, you look and glade;
– Monitored pollutants are sulfur dioxide (SO2), nitrogen oxides (NOx), carbon monoxide (CO), ozone (O3), volatile organic compounds (VOCs) and particulate matter (PM10 and PM2, 5) and meteorological parameters (wind direction and speed, pressure, temperature, radiant sun, relative humidity, precipitation) (displaypollutants).

CIRCUIT DATA

The monitoring system allows local authorities for environmental protection:
– To evaluate, to know and to keep the public informed, other authorities and institutions concerned about the air quality;
– To take timely, prompt measures to mitigate and / or eliminate pollution episodes or in case of emergency;
– To prevent accidental pollution;
– To warn and protect the population in case of emergency.

Information on air quality from 142 monitoring stations and meteorological data received from 119 monitoring stations will be sent to centers in the 41 local Environmental Protection Agencies.
Data on air quality from the stations will be presented to the public by means of exterior **panels** (conventionally located in densely populated cities)

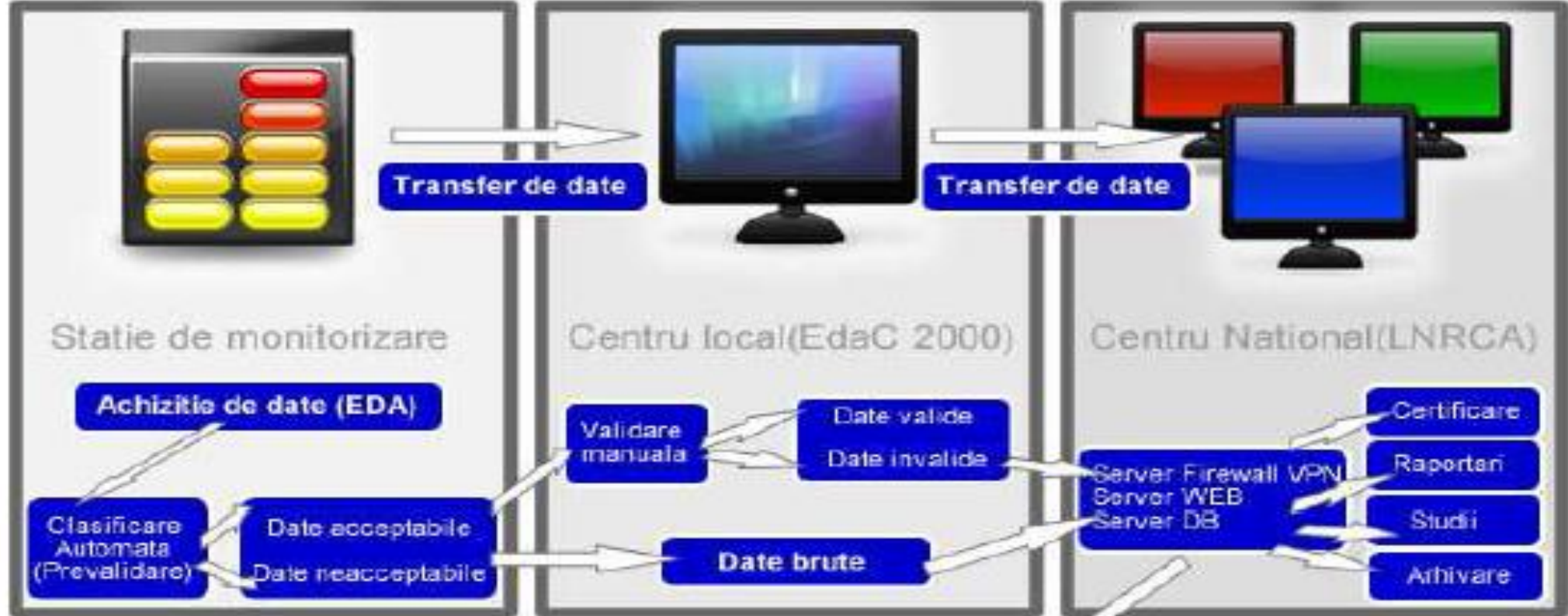and with the help of **interior panels** (located in Halls).

Nationally there are 107 public information points (48 exterior panels and interior panels 59).

National network of air quality monitoring centralizes data from the 142 stations now spread throughout Romania. Stations are distributed to the 41 local centers, located in Environmental Protection Agencies.

Measured values online analyzers sensors installed in stations are transmitted via GPRS to local centers. These are interconnected to form a network that includes central servers, where I get all the data and where are made in real time to the public via this website, the public display panels located in major cities and through information points located on the mayors.

Wanting as promptly inform the public, the data presented are those submitted by online analyzers sensors in plants (raw data). Therefore, the values should be regarded as valid provided they are basically just automatically (by software), following the local centers specialists to manually validate these data and subsequently central to certify.

Central database and archive stores both raw data and the validated and certified. Specialists access this data, both for different studies and for sending reports Romania to the European forums.

Statie de monitorizare

Achizitie de date (EDA)

Clasificare Automata (Prevalidare)

Date acceptabile

Date neacceptabile

Transfer de date

Centru local(EdaC 2000)

Validare manuala

Date valide

Date invalide

Date brute

Transfer de date

Centru National(LNRCA)

Server Firewall VPN
Server WEB
Server DB

Certificare

Raportari

Studii

Arhivare

Transfer de date

Informarea publicului

Internet(web site)

Panouri publice de afisare

Puncte de informare (Totem)

Mass-Media

Thank you!

EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY