AIR QUALITY MONITORING COOPERATION

Development of Air Quality Monitoring in City of St. Petersburg

Project Background and Objectives
Long-term bilateral cooperation between neighboring regions of Finland and the city of St. Petersburg, Russia has been aiming to improve and develop methods for air quality monitoring and to enhance the presentation, dissemination and exchange of air quality information. Cooperation has been financed by the Finnish Ministry of the Environment and the Committee for Nature Use, Environmental Protection and Ecological Safety, City of St. Petersburg.

The first phase of the Project was launched in 2004 in the framework of “City Twinning programme” between the cities of Tampere, Finland and St. Petersburg, Russia. The Project has included altogether five Project phases during 2004 – 2013. Finnish Meteorological institute and the City of St. Petersburg have been the main executors of the Project providing the air quality expert contribution. The Baltic Institute of Finland was coordinating the Project during four project phases from 2004 to 2012.

SOURCE OF FUNDING: Ministry of Environment and City of St. Petersburg
MAIN PARTNERS: Ministry of the Environment, Committee for Nature Use, Environmental Protection and Ecological Safety, City of St. Petersburg, Finnish Meteorological Institute and Baltic Institute of Finland
At the first implementation phase the project was designed to enhance reduction and prevention of the air pollution in Baltic Sea area with special emphasis on improvement of the air quality in the St. Petersburg region. In practice, this meant practical level collaboration between cities and experts to identify needs and opportunities in developing the air quality monitoring system and information distribution as well as to create basis for continuous exchange of information and experiences.

Achievements
Despite of the differences in the air quality legislation and data policy of Finland and Russia, the benefits of the Project are unquestionable.

Main Results:
- Improved skills of experts in air quality monitoring
- Development and improvement of the Air Quality Monitoring System in St. Petersburg
- Improvement of the air quality assessment by modeling and the use of modeling data to support the decision making
- Development of new methodologies and legal documents
- Initiative of the ship emission impact assessment on the air quality in the cities
- Online data exchange between the background air quality stations in Finland and St. Petersburg area, which was tested for the first time
- Spinoff activities; for example the BSR INNOSHIP project funded by EU with 21 partners from 10 countries around Baltic Sea area
- Disseminations of the Project results locally and internationally; within the framework of three seminars organized by the Committee, attended by over 120 participants from 57 cities and Russian Federation subjects.

The air quality monitoring network of the city of St. Petersburg has grown and improved significantly during the Project. In 2004 the air quality monitoring network in St. Petersburg included 12 automated stations, and in 2013 there are altogether 21 automatic stations in operation.

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The participants of annual Air Quality Days in Lappeenranta exploring the Mobile Air Quality monitoring unit (S.C. Mineral) from the St. Petersburg in 2005

Assessing the impact of traffic emissions to the air quality

Hands-on training in the calibration procedures

Air Quality Monitoring network of the city of St. Petersburg institute

Annual Mean
[µg/m³]
>20
15-20
10-15
5-10
<5