

TAKING COOPERATION FORWARD

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AIR TRITIA - The Ideas Behind the Project

AIR TRITIA | VŠB - TECHNICAL UNIVERSITY OF OSTRAVA | Petr Jančík

BACKGROUND





Suspendované částice PM_{2,5} Roční průměr

Rok: 2018 Kombinovaná venkovská a městská mapa Rozlišení: 1x1 km $\leq 5 \mu g.m^{-3}$ $5-10 \mu g.m^{-3}$ $10-15 \mu g.m^{-3} (10 = směrná hodnota WHO)$ $15-20 \mu g.m^{-3}$ $20-25 \mu g.m^{-3} (20 = orientační limit 2020)$ $> 25 \mu g.m^{-3} (25 = imisní limit)$ nejde o členskou či spolupracující zemi EEA nejsou dostupná data Δ venkovská pozaďová stanice

- městská či předměstská pozaďová stanice
- městská či předměstská dopravní stanice

Annual average PM_{2.5} concentration 2018

BACKGROUND





Benzo[a]pyren Roční průměr



Annual average benzo[a]pyrene concentration 2018

TAKING COOPERATION FORWARD



AIR TRITIA 2017-2020

- Uniform Approach to the Air Pollution Management System for Functional Urban Areas in TRITIA Region
- <u>airtritia</u>



15 PARTNERS



Czechia

- VŠB Technical University of Ostrava; ACCENDO -Centre for science and research institute; City of Ostrava, City of Opava, Moravian-Silesian Region
- Slovakia
- University of Žilina; City of Žilina; Žilina Self-governing Region
- Poland
- European grouping of territorial cooperation TRITIA, Ltd.; Central mining institute; Institute of Meteorology and Water Management - National Research Institute; City of Rybnik; City of Opole; Opole Voivodeship; Silesian Voivodeship

PROJECT OBJECTIVE



Create tools to improve local and regional air quality management, present more accurate information based on expert data and expertise, and suggest possible measures in form of strategies adapted to local conditions



UNIFIED SPATIAL DATABASE



- Socio-economic data
- Epidemiological data
- Meteorological data
- Sources of air pollution (transport, local heating, industry)
- Air pollution data:
 - Contribution of respective groups of sources on the PM₁₀ and PM_{2.5}, NO₂, benzo[a]pyrene pollution
 - Impact of pollution on the population;
 - Monitoring data (traffic pollution, isotopes and particle granulometry, analysis of moss samples)

TOOLS



AQMS - Air Quality Management System

- Results of air pollution modelling and effects of measures application on the air quality in 5 FUAs and the TRITIA region.
- The information available via an interactive map interface.
- https://aqms.vsb.cz/
- PWS Prediction and Warning System
- Short-time modeling of air pollution based on air monitoring and detailed meteorological data for 5 FUAs

STRATEGIES



Air quality management strategy for the TRITIA region

- Technical, legislative and other proposals focused on a common approach and international cooperation among respective parts of the TRITIA region
- Moravian-Silesian Region, Silesian Voivodeship, Opole Voivodeship, Žilina Region
- Specific air quality management strategies for target functional urban areas
- 5 strategies for City of Ostrava (CZ), Opava (CZ), Rybnik (PL),
 Opole (PL) and Žilina (SK);
- Focusing on specific air quality problems
- Modeling the impact on air quality and social, economic and health risks.

CONTACT





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