

Multi-Source Data Modelling to Understand the Effects of Tourism Demand on Air Quality in Italy

Adam Kadiev, Lixia Chu, Christoph Lofi
Email: A.A.Kadiev@student.tudelft.nl, L.Chu-1@tudelft.nl, C.Lofi@tudelft.nl
Software Technology Department, Delft University of Technology (TU Delft), the Netherlands

- Data integration on:
 - National and regional tourism demand data from ISTAT
 - Google Earth Engine air quality data
 - Categorized tourism locations from the Wikidata Knowledge Base
- Analyse the relation between tourism demand and air quality through correlation and Granger-causality analysis
- Understand the predictability of air pollution based on tourism demand using an LSTM model
- Findings indicate that overall higher polluted regions are more challenging to model with tourism demand data
- Overall cleaner regions, mostly in the south, show stronger correlation and predictability to model the effects of tourism demand on air quality

