

Press Release

Completion of the TIM DDF4CE project: An Integrated solution for air quality monitoring and sustainable tourism management

The **TIM DDF4CE** project has been successfully completed. The project involved partners **Aerosol**, which upgraded its **CASS** system to accurately measure and separate carbon aerosol types, and **Arctur**, which developed the dynamic data fusion module (T4.0 CORE) and a graphical analysis interface (FLOWS).

An advanced approach for air quality monitoring

The main achievement of the project is a solution that combines **air quality data** (carbon aerosols represent a significant proportion of $PM_{2.5}$) with real-time information on weather, **traffic, tourist arrivals and overnight stays**. This innovative combination gives tourist destinations an up-to-date view of the status and impacts of different factors on air quality.

Tourist destinations and local communities can monitor exactly how traffic flows and the intensity of tourist arrivals affect air pollution. Analyses allow the identification of critical periods such as peak or high seasons for more effective action planning. In this way, they can take proactive measures to improve air quality while promoting sustainable tourism.

The solution, developed within the TIM DDF3CE project, offers tourist destinations:

- **Real-time air quality monitoring:** It enables the identification of pollution sources such as traffic or combustion plants through precise measurements of carbon aerosols.
- **Support for sustainable actions:** Destinations can make informed decisions on pollution reduction measures based on analytical insights.
- **Increasing environmental attractiveness:** Better air quality attracts environmentally conscious tourists and contributes to the long-term competitiveness of a destination.
- **Managing seasonal impacts:** Identifying peak periods allows for more efficient visitor and traffic planning.

The solution is particularly suited to Alpine tourist destinations where geomorphological features such as valleys and basins often lead to the trapping of pollutants in a stable layer of the atmosphere and thus to increased concentrations of pollutants, especially the $PM_{2.5}$. Such destinations face the challenge of maintaining their attractiveness, as poor air quality caused by traffic, combustion plants and increased tourist activity has a negative impact on visitors and local populations.

We invite destinations to join the revolution in air quality monitoring and sustainable tourism management.

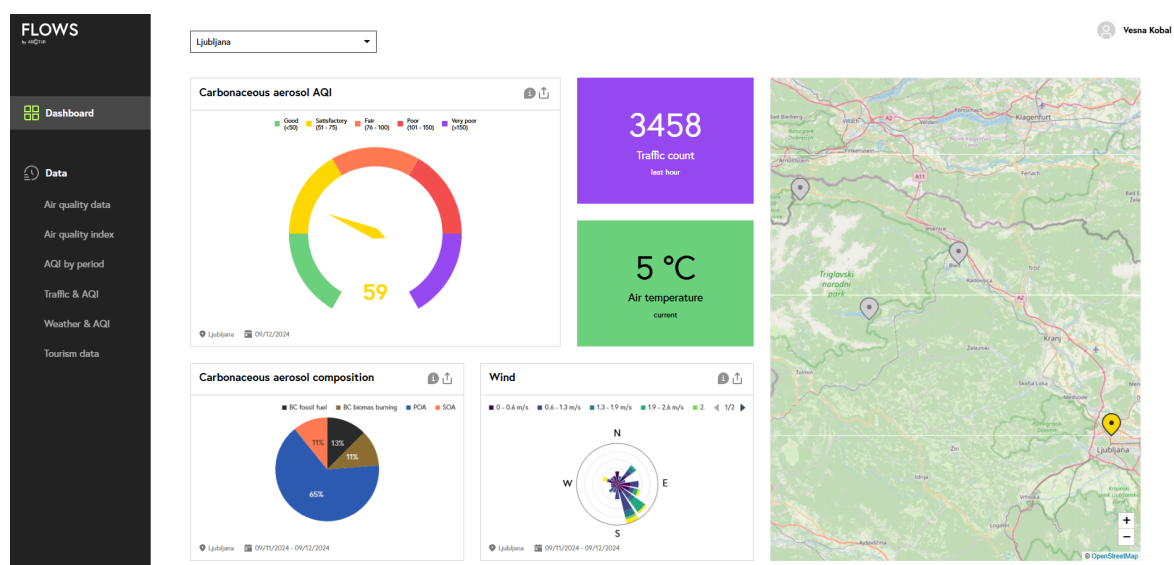


Figure 1 The dashboard shows up-to-date information on air quality at the selected destination.

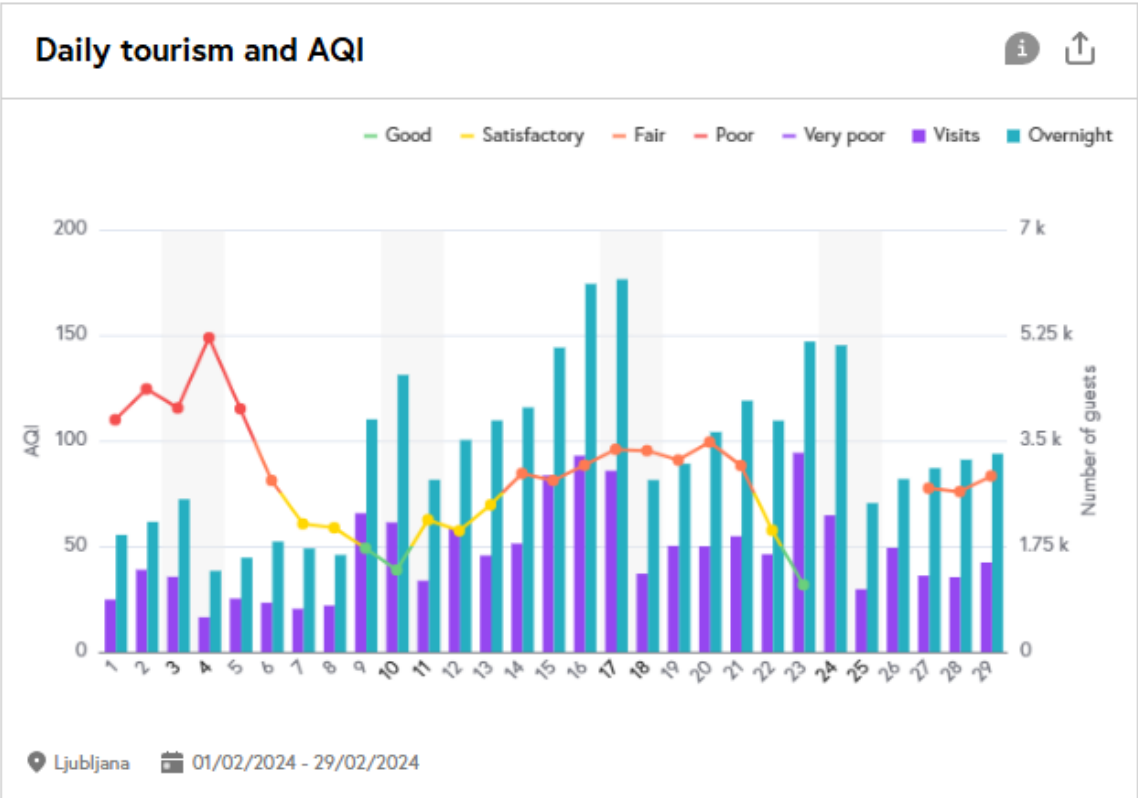


Figure 2: Finding links between tourist arrivals and overnight stays and air quality.