project's outputs

- the use of the next generation of measuring sensors
- measuring and modelling in pilot cities
- seminars for the public and schools
- database of trees with a proven effect on reducing pollution
- innovative greenery design
- methodology and a manual as a guide to the use of greenery
- national and international conferences
- innovative treatment strengthening the resilience of plants
- public opinion polls
- planting of new greenery on an area of 20,000 m²
- workshops for experts and city representatives
- models of pollution capture by the current and newly planted greenery
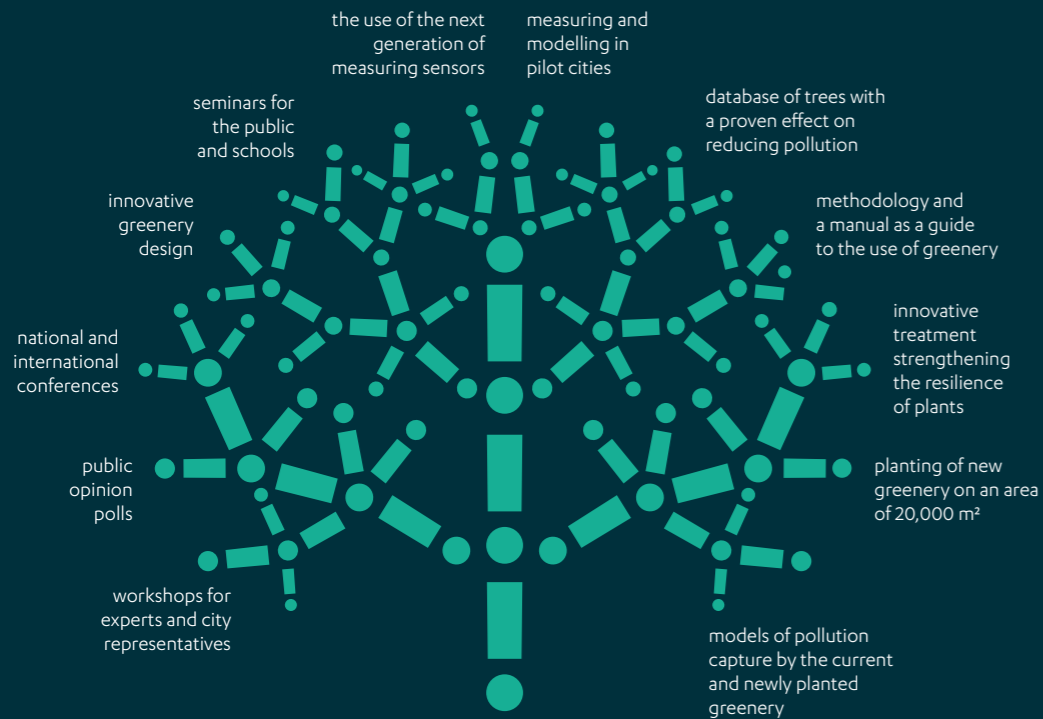
who is involved?

- City of Ostrava
- The Moravian-Silesian Region
- VSB - Technical University of Ostrava
- The Silesian University in Opava
- Palacký University in Olomouc
- Regional Association of Territorial Cooperation of Těšín Silesia
- SOBIC Smart & Open Base for Innovations in European Cities and Regions

www.uia-initiative.eu

OSTRAVA!!!

CLAIRO
A RESEARCH PROJECT FOR BETTER AIR IN OSTRAVA
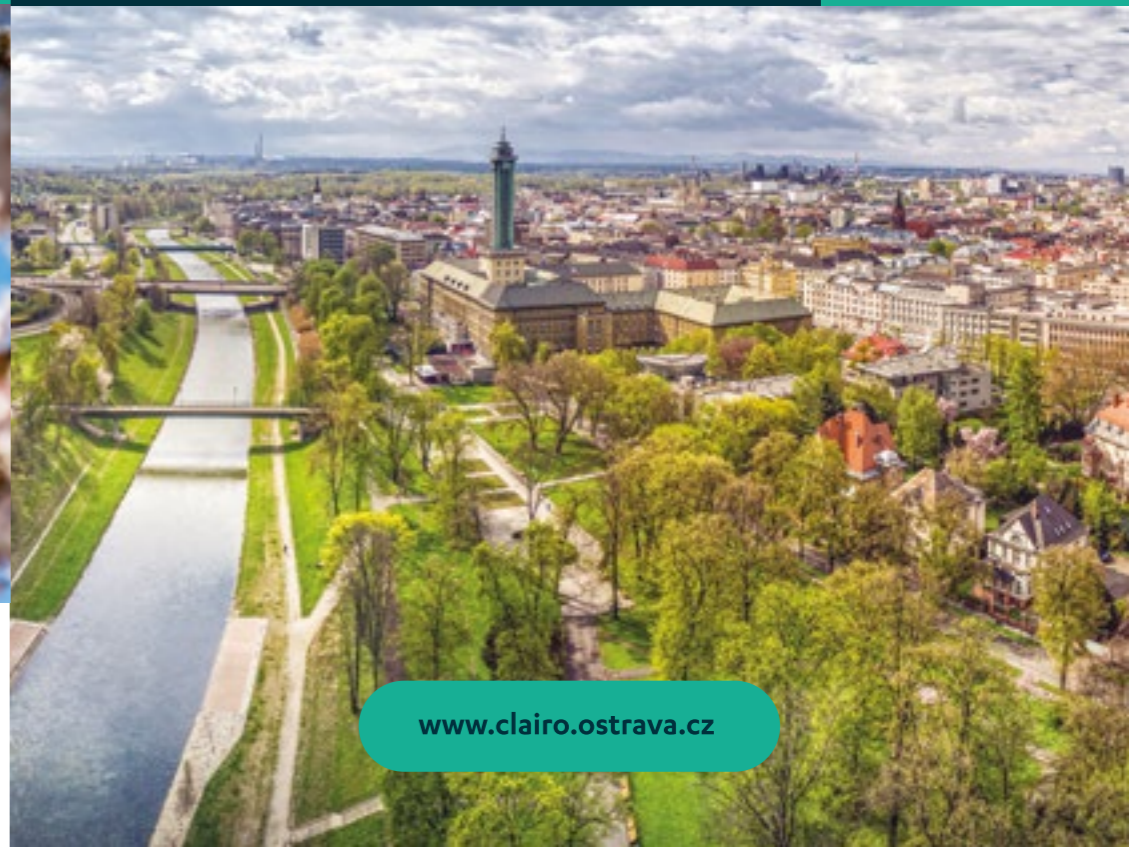
CLAIRO

www.clairo.ostrava.cz

It has been known for a long time that greenery is capable of absorbing pollutants from the air. But what practical benefits can this unique ability offer to us?

Can particular plant species, in appropriate locations, help reduce pollution levels?

And how can we help these plants to cope with the challenging environment in which they live?

Our research team has been investigating all these questions as part of the CLAIRO project.

2019
measuring

**In order to precisely evaluate the effect of greenery on air pollution, we need data.**

To collect the essential data, we installed measuring sensors at the planting sites, enabling us to monitor ongoing developments in air quality. Measuring is a crucial activity in the CLAIRO project. It helps us to determine how air pollution levels have developed before, during and after the new greenery was planted.
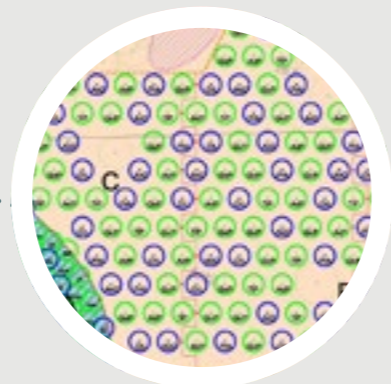
2020
modelling

The data sets obtained from the ongoing measurements are important not only for monitoring air quality, but also for modelling.

We have created a model for new greenery plantings, enabling us to plant highly resistant species that will be able to absorb more dust particles over a long period. The volume of pollutants absorbed is affected not only by the species planted, but also by the locations of the plantings. Our model takes this parameter into full consideration.
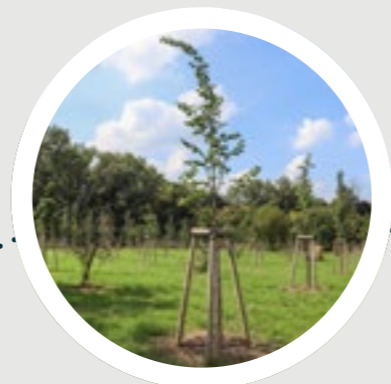
2021
planting

The planting is complete! In total, we've planted 442 new trees, 1 867 bushes, and 14 700 m² of grass, covering an area bigger than two football pitches.

We didn't choose the locations at random: in cooperation with the municipal district authorities in Radvanice and Bartovice, we selected two sites close to one of the biggest polluters in the city. The testing can begin!

2021
care

To help our greenery thrive even in highly stressful conditions, we treat it with a specially developed substance.

This innovative treatment formula, made from natural ingredients, is the outcome of many years of research. It helps the plants to overcome the impacts of negative environmental conditions, such as drought or major fluctuations in temperature. Thanks to the treatment, our greenery is healthier and better able to absorb pollutants from the air.

2021
education

We've learned a lot during the CLAIRO project, but we don't want to keep all that valuable know-how to ourselves.

We share our knowledge at training sessions for experts, students and local government representatives, as well as at public meetings. Our aim is to ensure that our research findings are useful when deciding which species to plant and which urban locations to choose – not only here in the Czech Republic, but also in other European cities.