

# What will be investigated?

*The residents near the airport have a special interest in finding out whether and, if so, how ultrafine particles affect human health. The impact study should contribute to research into potential health risks caused by UFP.*



The Forum Flughafen und Region (FFR, Airport and Region Forum) considers the following research questions to be especially relevant to the planned impact study:

- What impacts do ultrafine particles, in particular those from the transport sector, have on the health of people living in the Rhine-Main area?
- Do the impacts vary depending on the source of the UFP? If so, how? What are the mechanisms of action between exposure to UFP and the impacts on health, depending on the end point chosen for investigation?
- Do the impacts differ between certain population groups?
- What is the significance of multiple factors affecting health, e.g. a combination of UFP and traffic noise, or UFP and other air pollutants?

## Designing the study

As a first step, before the impact study could be put out to tender and conducted in coordination with the exposure study in a manner appropriate to the objectives, a design study was also commissioned for the impact study. The consortium comprises the following institutions:

- Institute of Occupational, Social and Environmental Medicine, Heinrich Heine University Düsseldorf (HHU), represented by the University Hospital of Düsseldorf (UKD)
- Institute of Epidemiology, Helmholtz Munich (HMGU)
- Leibniz Research Institute for Environmental Medicine (IUF)
- Institute and Policlinic of Occupational and Social Medicine (IPAS) at the Dresden University of Technology (TUD).

The final design proposal (Final Concept) presented as a report was discussed within the FFR committees and subjected to external scientific quality assurance.

The report serves as a basis for the next step: drafting a performance specification for the impact-study tender, expected to be launched in summer 2024. Due to resource constraints, the tender will not encompass all proposed modules. Initially, prioritization of the suggested modules will be conducted, taking into account the cost implications and weighing the pros and cons of different modules.

The prioritization will be carried out in close collaboration with the scientific consortium and the members of the scientific quality assurance.

All documents are available for download. The publications are only available in the German language. Therefore, you will be redirected to the German website.

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