



Reference	FP16
Project Title	Safe Micromobility
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<b>Project Duration</b>	2023-01-01 - 2023-06-30



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# Summary

This pre-study was intended to prepare for the project MicroSafety (<a href="www.microsafety.eu">www.microsafety.eu</a>), an unusual research project where the project leader cycled on an instrumented bike across five European countries to collect naturalistic data for traffic safety analysis while presenting research results on micromobility at eight venues (in SE, DK, DE, and IT).

This pre-study supported the project MicroSafety by

- 1) planning the venues,
- 2) equipping the bike,
- 3) piloting the data collection and video analysis,
- 4) applying for ethical approval from Etikprövningmyndigheten
- 5) preparing and testing the presentation of research results,
- 6) applying for more funding.

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# Safe Micromobility

# 1. Background

Micromobility promises to improve our lives and cities but today is poorly integrated in the transport system. More data for and more awareness about micromobility safety research may help micromobility express its full potential.

# 2. Project set up

## 2.3 Purpose

The main purpose of this project is to prepare for a larger project (<a href="www.microsafety.eu">www.microsafety.eu</a>) that leveraged the collection of naturistic data across Sweden and Europe to disseminate research results on micromobility.

#### 2.4 Objectives

To support the MicroSafety project in collecting data and disseminating research result this pre-study.

2.5 Project period 2023-01-01 - 2023-06-30

#### 2.6 Partners

Chalmers, Autoliv, Folksam, and Trafikverket, Göteborg Stad, NTF

## 3. Method and activities

The eight venues have been identified with the help from all partners in the project. Several potential hosts were contacted and eventually the plan was completed.

The bike was installed in the Micromobility Lab at Chalmers. Previous experience from sensor integration and installation, 3D printing, data processing and logging, and automatic video processing was crucial. Piloting happened mainly in Västra Götaland. Both instrumentation and piloting have been <u>documented</u>. It is important to mention that an application to Etikprövningmyndigheten was submitted (and was approved before the start of the MicroSafety project).

Several versions of the presentation were exchanged among the partners and after a few dry-runs a presentation was recorded and <u>uploaded on YouTube</u> (as a back-up in case reaching some venues at the planned time would have not been possible).

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An application for a mobility grant was submitted to the Area of Advance (AoA) Transport at Chalmers.

## 4. Results and Deliverables

This SAFER pre-study helped the preparation of MicroSAFETY by:

- 1) identifying 8 different venues and hosts in SE, DK, DE, and IT,
- 2) preparing a bike, equipped with sensors, logging equipment, and extra storage place,
- 3) piloting the instrumented bike and the video analysis,
- 4) making a Power Point presentation to hold at the venues (recording available on YouTube),
- 5) applying for funds from the AoA Transport at Chalmers (mobility grant) to cover the travelling costs.

# 5. Conclusions, Lessons Learnt, and Next Steps

This pre-study facilitated the success of MicroSafety not solely by providing financial support for instrumenting and piloting the bike, but also by leveraging the network of partners to find venues for MicroSafety and polish the presentation that Marco held across Europe on several occasions.

Several unforeseen challenges proved to be very time-consuming and threatened the feasibility of MicroSafety, they included properly addressing **ethical and legal issues**, which created an unexpected amount of administration and bureaucracy. Keeping up with **social media**, which required a large amount of time and would have deserved a dedicated professional. Finding **hotels** able to safely store the bike also proved to be surprisingly hard (in part because of the travelling procedures in place at Chalmers).

MicroSafety has now been (successfully) completed and the search of financing for data analysis has started.

# 6. Dissemination and Publications

This pre-study was presented at SAFER in a lunch seminar on September 7th, 11.30-12.45.

The dissemination activities within MicroSafety (which this pre-study enabled) has been intense and included:

Eight presentations at renowned universities in Europe (<a href="www.microsafety.eu">www.microsafety.eu</a>)

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## Social media:

https://www.instagram.com/marcochalmers/

https://www.youtube.com/playlist?list=PL4J\_y4nKehcOlJ1y\_w-HpbYARIY\_hizPV https://www.youtube.com/playlist?list=PL4J\_y4nKehcPqJ0rHpEPEJxrD98LH0TIq

## Media:

GP and the Halmstad radio featured the project.

## Scientific contributions:

Dozza M. "How do drivers pass cyclists on European roads?". ICTCT Conference, Catania, Italy, Oct. 26-27 2023.