



SODAQ

SNIFFERBIKE

CITIZEN SCIENCE



SODAQ **SNIFFERBIKE**

SODAQ

- Research and Development
- Hardware Manufacturing
- Data provisioning via LTE-M



- Data Platform
- Community Engagement
- Public Dashboard and Application



SNUFFELFIETS

Project 2018 - 2021

- Community Engagement
- Data Analysis



provincie :: Utrecht

- Data Validation and Analysis
- Verifier of particulate matter data quality



Rijksinstituut voor Volksgezondheid
en Milieu
Ministerie van Volksgezondheid,
Welzijn en Sport

MAKING THE INVISIBLE – VISIBLE



- Over 700 devices in Europe
- Working just when you are cycling
- Approved by the RIVM

<https://snuffelfiets.nl/data/>

PROJECT

What does the device measure?

- PM10 – coarse dust particles
- PM2.5 – fine particles
- PM1.0 – ultra-fine particles
- GPS location
- Temperature
- Humidity
- Air pressure
- Time
- Voltage
- Volatile Organic Compound (VOC)

PAST SUCCESSES & DRAWBACKS





SUCCESSSES & DRAWBACKS

SUCCESSSES

- Publicly available data
- Data validated by RIVM
- Showing data behind rising environmental concern
- Extension of the project from summer 2020 to january 2021
- Strong sense of community
- Dashboard and Mobile app to visualise routes and PM2.5 data

DRAWBACKS

- Decline in cycling less commutes to work
- Device is still quite expensive (€250) could become cheaper with larger production volumes
- Device needs to be charged every 8 hours
- User-friendliness, some users struggled with using the devices

OPPORTUNITIES & CHALLENGES AHEAD





OPPORTUNITIES & CHALLENGES

OPPORTUNITIES

- More recreative cycling, exploration of unmeasured paths
- International expansion
- Rise in popularity of citizen science
- Collaborating with last mile courier services to gather more data

CHALLENGES

- International network coverage
- Getting data from unexplored paths
- What is the real value of the data? E.g., value per kilometer
- How to make the device more interactive?

An aerial photograph of a multi-lane highway bridge crossing a wide river. The water is a deep green color, and several small boats are visible on the river. The bridge has multiple lanes in both directions, with white lane markings and arrows. The surrounding area includes green grassy banks and some trees. The image is partially obscured by a white, curved shape on the left side.

THE FUTURE OF THE SNIFFER BIKE

SODAQ AIR



SODAQ AIR

Goal: Increased user-centricity and user experience to lower the threshold to measure air quality with the SODAQ AIR.

MOST NOTICEABLE CHANGES:

- 1 Smaller casing and sleek design
- 2 More intuitive mounting
- 3 LED lights to indicate battery status & PM2.5 data



A savanna landscape with zebras and a tree. The scene is captured in a wide-angle shot, showing a vast, open plain of golden-brown grass under a clear, light blue sky. In the foreground, a zebra stands prominently, facing left. In the middle ground, a small, isolated tree stands on a slight rise, with several other zebras gathered around it. The background features a range of low, hazy mountains. The image is framed by a white, curved border on the left side.

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LOW POWER SENSING AND TRACKING