



# GREENWOOD BIKELANETRAILER

## OPTIMIZES MANAGEMENT OF BIKELANE MAINTENANCE

Authorities are challenged to meet the increasing number of users on bike lanes and bike paths and to maintain high ride comfort and safety.

Well-maintained bike lanes make cycling a more attractive transportation option. Cyclists are more likely to use bike lanes that are clear of debris, potholes, or other obstacles, encouraging active transportation and reducing congestion on roads.

**Greenwood Bikelanetrailer** provides a longitudinal profile, which optimizes management of bikelane and paths maintenance, and is used for condition surveys. The Bikelanetrailer uses high precision sensors and digital data acquisition for highest possible measurement quality and can be towed by a scooter or a standard car as well.

**Accurate Assessment:** The Bikelanetrailer can accurately assess the condition of bike lanes, identifying uneven surfaces. This data allows maintenance crews to prioritize repairs based on the severity of the damage.

**Efficient Resource Allocation:** By pinpointing areas in need of maintenance, the Bikelanetrailer helps optimize resource allocation. Maintenance crews can focus their efforts on the most critical areas, ensuring efficient use of time and resources.

**Preventive Maintenance:** Regular monitoring allows for early detection of potential issues before they escalate into safety hazards. By addressing minor maintenance needs promptly, cities can prevent more significant damage and prolong the lifespan of bike lanes.

**Data-Driven Decision Making:** Bikelanetrailer measurements provide objective data on the condition of bike lanes, enabling evidence-based decision-making for maintenance prioritization and budget allocation. This approach helps ensure that resources are directed where they are most needed.



## Technical Description

- Measures the longitudinal profile of any pavement at high speed, high reliability and high accuracy.
- Post processing software, allowing the simulations of other types of profiling instruments.
- Powerful software suite, which allows real-time calculation of IRI, displayed on the on-board laptop.
- The main sensor is a LMI3D laser, which measures the texture (MPD) and roughness (IRI). This data is synchronised with input from a highly precise odometer sensor and an accelerometer.



**Notebook for data collection.  
An advanced battery provides  
power for a full working day.**



**Touchscreen tablet with basic  
operator features.  
Wifi-connected to trailer notebook.**

**The Bikelanertrailer is based on well-proven standard  
components allowing for flexible module build-up to suit  
special needs, local requirements etc.**

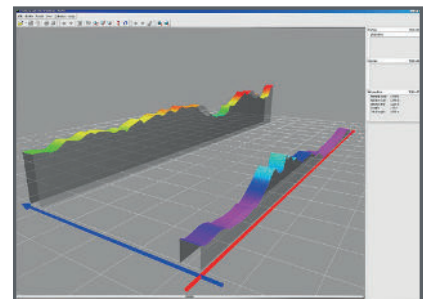
## Results

The collected data can be viewed in real-time while measuring the roads. Post-processing specialized reports and calculations can be produced from the longitudinal profile and IRI values, for either single measurements or on batches of data.

### Typical reports include:

- Raw longitudinal profile
- International Roughness Index (IRI in mm/m or inch/mile)
- Simulated California type / Viagraph type
- Proscan (without the need to printout and scan the Profilograms)
- Micro texture

In addition, custom designed filters can easily be built into the software. The output can be shown as both 2D and 3D graphs. It is also possible to arrange the results into intervals chosen by the user, typically 10m-100m.



**GREENWOOD ENGINEERING**

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