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**Quantifying Europe’s Cycling Infrastructure using OSM (QECIO): Metadata**

# General Information

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With assistance from Arnaud Briol, John Hammerschlag and Gautier Radermecker, data scientists from Agilitic, as part of the 1% for the Planet program.

**Date of data collection:**

PBF files collected in June 2023 from Geofabrik.

**Date of last code update:**

01 July 2023.

**Information about geographic location:**

37 countries including 27 EU member states.

The available PBF files from Geofabrik were used.

Keywords: cycle infrastructure, Open Street Map (OSM).

# Data and File Overview

**Description:**

The country folder contains the cycle networks per area of analysis (NUTS3). It contains information on the OSMid, type of infrastructure, surface, smoothness, width, and a link to the OSM website of each way.

The CSV file contains information, on the country, the NUTS3, the date of creation of the summary, and values of interest.

**Units of measure:**

The units for the data sets are either in kilometres (km) for lengths or percentages (%) for ratios.

**Format of the files:**

The files are in geopackages (GPKG format) and can be opened using Geospatial software, such as ArcGIS, or QGIS.

A comma separated values (CSV) file with all the results is also available.

**Creation of files:**

Cycle networks were created on the 03 July 2023.

**Additional information:**

Please visit our [methodology](https://european-cyclists-federation.github.io/Documents/QECIO%202%20methodology.pdf) to understand the logic behind how the cycle networks were filtered.

# Sharing and Accessing Information

**Restrictions:**

Please consider that this is an early version of the product. The data needs to be optimised before being shared with a larger audience.

**Links to publications**:

Please visit our previous edition [here](https://lookerstudio.google.com/u/0/reporting/81d2904d-7db5-4ed5-98e0-85af75b46577/page/p_qsvwe0yluc).

**Recommended citation for the data.**

Not yet established.

# Methodology

**Description of methods used**:

Please visit our methodology website [here](https://european-cyclists-federation.github.io/Documents/QECIO%202%20methodology.pdf).

**Interpretation of csv file columns:**

|  |  |
| --- | --- |
| Column CSV file | Description |
| Country | The NUTS 0 country code. |
| City | Name of the NUTS 3 region. |
| Lat, Lon | Latitude, Longitude. |
| Area | Area in square kilometres. |
| Date | Last time the code was executed. |
| local\_oneway\_km | Length of one-way local roads. |
| local\_twoway\_km | Length of two-way local roads. |
| local\_contra\_km | Length of local roads with contraflow cycling. |
| overview-local-road-network | Total length of the local road network |
| overview-cycle-tracks-km | Total length of the cycle tracks. |
| overview-shared\_pedestrians-km | Total length of the cycle and pedestrian tracks. |
| overview-limited-access-km | Total length of the limited access roads. |
| overview-total-cycle-infrastructure | Total length of the analysed roads for surface analysis. This is the sum of tracks, lanes, cycle and pedestrian tracks and limited access roads. |
| overview-busways-km | Total length of bus and cycle lanes. |
| overview-cycle\_streets-km | Total length of cycle streets. |
| overview-ext-cycle-infrastructure | Total length of the extended cycle infrastructure. |
| sum\_total\_surface | Total length of analysed roads with surface tag. |
| sum\_total\_smoothness | Total length of analysed roads with smoothness tag. |
| sum\_total\_width | Total length of analysed roads with width tag. |
| percentage\_with\_surface\_tag | Share of roads with the tag. Calculated as sum\_total\_surface/overview-total-cycle-infrastructure |
| percentage\_with\_smoothness\_tag | Share of roads with the tag. Calculated as sum\_total\_smoothness/overview-total-cycle-infrastructure |
| percentage\_with\_width\_tag | Share of roads with the tag. Calculated as sum\_total\_width/overview-total-cycle-infrastructure |
| surface-type-infra-type\*-surface-type\*-km | Total length of a given cycle infrastructure and their respective surface. |
| percent\_surface\_type-infra-type\*-surface-type\*-km | Share of a given cycle infrastructure type and surface to the total infrastructure type. |
| surface-quality-infra-type\*-surface-type\*-km | Total length of a given cycle infrastructure and their respective quality. |
| percent\_surface\_quality-infra-type\*-quality-type\*-km | Share of a given cycle infrastructure type and quality to the total infrastructure type. |
| type-infra-type\*-directionality\* | Total length of a given cycle infrastructure and their directionality. |
| ratio-cycle\_tracks-main\_roads | Ratio cycle tracks to main roads. |
| ratio-cycle\_infra-main\_roads | Ratio of analysed roads for surface to main roads. Not presented in the dashboard. |
| ratio-contraflow | Ratio of contraflow cycling. |

**infra-type\* =** cycle tracks | cycle and pedestrian tracks |cycle lanes| limited access roads| bus and cycle lanes | cycle streets.

**surface-type\* =**asphalt/concrete | blocks/slabs/cobbles | stabilised gravel | gravel/dirt | unknown | unrecognised

**quality-type\* =** perfectly rideable | well rideable | moderately rideable | badly rideable | not rideable | unknown

**directionality\*** = unidirectional | bidirectional

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