CYCLING COUNTS: THE DATA WE HAVE – THE DATA WE NEED.

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Abstract: *In order to set ambitious goals for cycling policy and to justify investments in cycling infrastructure, a sound base of data is needed. However, at the moment, there is not enough data available on cycling, and for the data that exists, there is little or no harmonisation of collection methods and little connection between different databases. This article gives on overview of existing statistics on different levels of governance (global, European, national, local) and calls for more and better data collection.*

Key Words: Cycling, Statistics, Data Collection

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1. INTRODUCTION

Since 1983, the European Cyclists' Federation (ECF) has been promoting cycling as a mode of utilitarian and recreational transport. Its work has reached from federating local and national cycling organisations via the development of the Velo-city conference series to become the most important global meeting place for cycling planners and advocates, to successfully making the case for cycling at the European and the global level. ECF's long-term advocacy work has recently resulted in major advancements for the status of cycling in European transport policy. To name just two examples: The European Commissioner for Transport, Violeta Bulc, is now speaking explicitly of establishing cycling as the fifth mode of transport (besides cars, rail, aviation and shipping) [1], and the Transport Ministers of the EU Member States have committed to promoting cycling in their first ever meeting dedicated to the topic held on 7 October 2015 under the Luxembourgish Presidency of the Council by adopting a "Declaration on cycling as a climate friendly transport mode". [2] Also at the global level, ECF and the associated Word Cycling Alliance (WCA) are active

in the promotion of cycling, for example by participating in the Partnership on Sustainable, Low Carbon Transport (SLoCaT).
There is, however, one issue that has accompanied ECF's work since the beginning: the lack of adequate data regarding cycling. In order to assess the state of cycling in a certain city, region, country, or world region, but also in order to estimate the benefits of increased cycling at all levels of governance, disposing of a reliable database aggregating statistics from the different levels is indispensable for researchers, activists and policy-makers alike. For other transport modes, like car transport or public transport, such databases exist; for cycling, data collection is today mostly done at the local level, with varying levels of ambition and with little or no harmonisation of collection methods, and, as a result, a great difficulty to obtain exact information on cycling at aggregated levels.
The aim of this article is to give an overview of existing methods of data collection for cycling at different levels, their advantages and disadvantages, and to outline a way forward for better and more harmonised cycling data.

2. CYLING DATA AT THE GLOBAL LEVEL

As of today, there is very little data available at the global level regarding cycling, and the data that exists is practically never harmonised. For example, the World Bank has published an "Urban Transport Data Analysis Tool" [3] that allows for the comparison of urban transport data from 93 cities over the world. The tool includes the modal share of city inhabitants cycling to work as an indicator; while this is a good first step, the data is only based on secondary sources using different methodologies for measuring this indicator – counting or surveys for example, which makes direct comparison of the modal share data very difficult.
The need for more and better data at the global level becomes obvious when looking at two major challenges the world faces: climate change and sustainable development. For both issues, cycling can deliver solutions as part of a low-carbon, efficient and inclusive transport system; therefore, ECF and the WCA are engaged in the Paris Process on Mobility and Climate in the run-up to the 21st Conference of Parties of the United Nations Framework Convention on Climate Change (UNFCCC) as well as the UN work on Sustainable Development Goals (SDGs). In the latter process, ECF is participating in the Technical Working Group of the UN Secretary-General's High Level Advisory Group (HLAG) on Sustainable Transport, where indicators to measure progress towards the SDGs are being developed. In that framework, ECF has proposed a number of indicators relevant for cycling. The approach ECF took here was to suggest targeted indicators mainly according to their usefulness for the achievement of the SDGs, and to a lesser extent based on current data availability. While this approach allows for a high level of ambition regarding the contribution of cycling to the achievement of the SDGs, it also means that it cannot be built on existing data alone. ECF therefore calls on the international community, national governments, academics and advocates to collaborate on making better data available for measuring the global state of cycling as part of the way to achieving the SDGs.
An example of how data on cycling can be harmonised and compared at the global level will be given by the forthcoming study "A Global High Shift Cycling Scenario" [4] supported by ECF, the sports cycling federation Union Cycliste Internationale (UCI), and the Bicycle Product Suppliers Association. This study will give an overview over current

cycling levels around the world, including the development of electric bikes and will show the impact of a high shift cycling scenario for e.g. CO_2 emissions.

3. CYCLING DATA AT THE EUROPEAN LEVEL

In comparison to the global level, efforts to collect and harmonise data on cycling are more advanced at the European level – but still far from sufficient to constitute the base of a well-informed and ambitious cycling policy.

In the framework of its "Eurobarometer" opinion survey programme, the European Commission has started to conduct a yearly survey on the quality of transport. In this survey, citizens are asked the questions "On a typical day, which mode of transport do you use most often?" and "What are reasons for using this mode of transport?" In the latest edition of the study, published in December 2014, the answer "cycling" was given by ca. 8% of the respondents around the European Union, with convenience being the most cited reason for cycling (49%) [5]. The study also divides the answers on the level of EU countries and different groups of the population, providing directly comparable data. While this survey is a helpful tool to give a first rough estimation of the modal split in different EU countries, the question the data is based on is very vague. It does not give information about the purpose of trips (work, education, shopping…), and the appreciation of what is a typical day and the mode of transport most used is left entirely to the respondents. This might lead to an underestimation of the share of walking and/or cycling in daily mobility behaviour because these modes are mainly used for short distances and could end up "under the radar" of respondents when they try to identify their most used mode of transport. The survey can therefore not serve as a substitute for a detailed collection of trip data, as it is done on the national level (see below).

The European Platform on Mobility Management (EPOMM) provides a modal split tool with data from 442 cities on its homepage [6]. As with the Eurobarometer survey for comparisons between countries, this is a convenient tool for making a first rough comparison of the modal split of different cities. However, the data is only based on secondary sources with different methods of data collection (surveys, automatic counting, manual counting…), for different years, and not always up to date.

In order to make better comparisons between cities possible through harmonised data collection, the European Commission is currently working on an "Urban Mobility Scoreboard" as part of its Urban Mobility Package [7]. ECF is involved in the stakeholder consultations for the development of the scoreboard and providing expertise regarding the cycling-related indicators, advocating for sound modal split data, but also for the inclusion of indicators concerning e.g. public bike sharing or bike parking.

Last but not least, there is also an important initiative that focusses on Europe as a world region beyond the EU-28 working on cycling data: The Transport, Health and Environment Pan-European Programme (THE PEP). With the Regional Office Europe of the World Health Organisation (WHO) and the United Nations Economic Commission for Europe (UNECE) as main partners, the 56 signatory States of the programme decided in April 2014 to launch the development of a Pan-European Master Plan for Cycling Promotion. This plan will include a chapter on data collection, with the objective of giving recommendations for harmonised indicators and collection methods. ECF is participating in the development of the plan and providing expertise to the signatory State responsible for the subject of data collection [8].

4. CYCLING DATA AT THE NATIONAL LEVEL

At the national level, data on cycling is collected in many different ways, with little or no harmonisation between the different national statistical offices. The differences concern, amongst others, the sample size, the timing of the survey (important because of seasonal changes in modal split), or the concrete questions asked.

In some countries, cycling is included in national censuses. This is the case of England and Wales, where every household (about 25 million in total) receives a questionnaire including the question "How do you usually travel to work?", with cycling as an option for the answer. With a response rate of around 93%, this allows for representative statistics on the levels of cycling to work down to the level of municipalities, or boroughs of large municipalities [9]. However, cycling for other purposes than commuting to work is not taken into account in these statistics; also, full-scale censuses are only undertaken every 10 years in England and Wales, which makes it complicated to evaluate the evolution of cycling over the short and medium term.

Comprehensive mobility surveys are another method used in several countries to collect data on cycling at the national level. One example is the Danish National Travel Survey [10] that is undertaken every year with a sample size of around 20,000 persons, 58% of whom respond to the survey. The main content of the survey is a detailed logbook of all trips during one day. Additional questions are asked according to the mode of transport used, for example on bike parking availability or carrying bikes on trains. In order to account for seasonal differences in mobility behaviour, the reporting days are evenly spread over the year. In Denmark, the study is co-financed by 37 public and private institutions, including the Danish Industry Federation; in times of restrained public budgets, this financing model could be an option to explore for other countries as well.

In the Netherlands, there is a nation-wide initiative ("Cycling Count Week") to collect cycling data based on the voluntary participation of cyclists. During one week, the counting happens through a smartphone app that transmits GPS data and information entered by the cyclist concerning his or her ride [11]. In the 2015 edition of the initiative, there were 38,000 active participants, transmitting data on 2 million bike trips regarding routes, actual speed, trips before and after use of public transport, the use of electric bikes, problematic or dangerous zones for cyclists and other criteria. While this survey does not deliver modal split data, it provides valuable information on cycling conditions and the real-world behaviour of cyclists, which can be used for better informed planning of cycling infrastructure.

5. CYCLING DATA AT THE LOCAL LEVEL

The methods to collect cycling data at the local level are even more diversified and less coordinated than at the national level. Therefore, we can only give some examples for interesting developments in this chapter.

Perhaps one of the most comprehensive collections of cycling data for one city is the "Copenhagen Bicycle Account" [12]. Published every year, this report contains statistics and surveys that go far beyond modal split data. Amongst others, it investigates the reasons of Copenhagen citizens to cycling, their attitudes towards cycling, and their level of satisfaction with cycling infrastructure or the use of cargo bikes. The report is a base for policy-making and a justification for investments in cycling infrastructure, but also a good

way of promoting the image and the ambitions of Copenhagen as a cycling-friendly city around the world.
That the collection of useful data on cycling is also possible under completely different circumstances than in Copenhagen and with the limited financial means of a volunteer organisation is proven by the Kyiv Cyclists' Organisation AVK, a member of ECF. By counting cyclists at key streets and intersections in Kyiv during a range of different days in autumn and spring, the activists were able to establish a first assessment of the situation of cycling in Kyiv, also regarding e.g. the gender balance, the use of car lanes or sidewalks or the type of cycling (sports/utilitarian) [13]. If the association can repeat this initiative in the years to come, it will also be able to assess the evolution of cycling in the city.
Besides the traditional method of manual counting, more and more cities are also using automatic bike counters, which can be used all day and all year round on dedicated cycle lanes, mixed infrastructure and greenways alike. These counters are for example used on the network of touristic cycle routes in France (part of the EuroVelo network) in order to measure the use of the network during different seasons and the evolution of cycle tourism over the years [14].

6. CONCLUSIONS

This short overview of databases and data collection methods for cycling shows that there are statistics available at every level of governance. However, the availability of data strongly decreases at the European and the global level. Furthermore, even at the lower levels, there is a clear lack of harmonisation of data collection methods and a lack of interconnectedness between the different databases.
In order to enable the setting of ambitious goals for cycling policy at all levels and to justify investments in more cycling, this situation will have to improve in the future. ECF and the WCA are therefore working with their member organisations, with policy makers and with their partners in the academic world to make more and better harmonised data on cycling available. The mentioning in the EU Transport Ministers' Declaration of Luxembourg of an EU focal point for cycling that can facilitate the exchange of best practices among Member States through data collection is an excellent first step in that direction, as is the participation of ECF in the Technical Working Group of the UN Secretary-General's High Level Advisory Group (HLAG) on Sustainable Transport, where indicators for the achievement of the Sustainable Development Goals are being developed. However, this process will need input from all interested stakeholders. We hope that this paper can serve as a call for action to work on this very important subject and we are open to receive contributions on how we can improve our common database for cycling promotion.

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