The global Research-Book-Web-Teaching program SUSTAINABLE URBAN MOBILITY (SUM) contributes to the current quest for sustainable mobility solutions. SUM employs the useable past to credibly explain today’s debates in a long-term perspective. SUM outcomes will deliver the necessary data to make them useable for policymakers and to a broad audience to build public support.

The 4-year SUM program deliverables:
- Standardized benchmarking tools within the TFSD framework
- Comparable long-term datasets
- Public-outreach program and digital-based platform
- Educational tools

**Challenge**
We need to shift to more sustainable, energy-efficient and environmentally friendly mobility modes for both goods and people. The EU aims to support local authorities, by establishing a usable legal framework, providing budgets for necessary investment, and facilitating awareness campaigns for policymakers, citizens, and companies about the opportunities to create more sustainable urban transport and livable cities. The EU’s strategic goals for 2050 are ambitious. Broad-based support to bring home the Paris climate accord is more urgent than ever. Sustainable urban modes of transport like cycling will need to play a crucial role in the transition.

**Use Past Mobility Shifts for Policy Today**
An analysis of past mobility shifts provides useful instruments for policymakers. The natural sciences, with their data, graphs, modeling, and abstraction, dominate climate change discussions. Yet, the environmental humanities are essential for assessing how well people understand the choices. Current sustainability challenges call for investments in mobility alternatives like walking, cycling, and public transit, long contested as old-fashioned, dangerous, and obsolete. Such perceptions continue to influence today’s policy for more sustainable solutions. SUM explores and challenges how past representation fundamentally shapes contemporary debates and developments through the following four individual tools:

1. **Keeping Tabs**: Establishing Long-Term Sustainable Urban Mobility Indicators (CES-SUMI)
2. **Your City Next**: Producing Cycling Cities Publications (CC)
3. **Bringing Paris Home**: Building Public Outreach and a Research-Based Web Platform (WP)
4. **Bringing Paris to the Classroom**: Creating a Teaching Module (CTM)

**Why did some cities become cycling cities and others did not? Key insight into how past decisions shape today’s policy choices is crucial for overcoming resistance and understanding the decision-making process**

*We seek support from the EU Directorate-General Mobility and Transport, national Transport Ministries, EU Parliament, Business and Industry, and individual cities, for the SUM program tools. SUM will empower policymakers, boost support, and raise awareness of the long-term developments in sustainable urban mobility.*
THE TFSD standard excludes urban mobility, currently responsible for about 40 percent of CO2 emissions (European Commission 2017b). Other indicators are circulating: the EU initiative (CIVITAS) for cleaner cities and better transport is based on the World Business Council for Sustainable Development approach with aggregated numbers; the European Cyclists’ Federation (ECF) cost-benefit analysis focuses on cycling (Küster & Officer 2013); the EU Sustainable Urban Mobility Plan (SUM) (European Commission 2017a) suggests measurements that are not (yet) standardized or comparable (Gühnemann 2016); the International Transport Forum (ITF) broad-ranging discussions on sustainable urban mobility indicators emphasize social integration rather than ecological sustainability (Olofsson & Brundell-Freij 2017). None of these is standardized, comparable, or has a long-term perspective.

The Sustainable Urban Mobility Indicators (SUMI) project seeks to develop standardized sustainable urban mobility indicators within the TFSD framework based on modal split. Monitoring the shift towards sustainable urban mobility across Europe requires a set of integrated, standardized, science-based, and institutionally embedded performance indicators, including non-motorized and active mobility transit modes.

### TOOL 1: Keeping Tabs

**Establishing Long-Term Sustainable Urban Mobility Indicators (CES-SUMI)**

The UNECE/OECD/Eurostat Task Force for Measuring Sustainable Development (TFSD) has developed sustainability indicators as a policy instrument—an initiative of the Conference of European Statisticians (CES). The TFSD standard excludes urban mobility, currently responsible for about 40 percent of CO2 emissions (European Commission 2017b). Other indicators are circulating: the EU initiative (CIVITAS) for cleaner cities and better transport is based on the World Business Council for Sustainable Development approach with aggregated numbers; the European Cyclists’ Federation (ECF) cost-benefit analysis focuses on cycling (Küster & Officer 2013); the EU Sustainable Urban Mobility Plan (SUM) (European Commission 2017a) suggests measurements that are not (yet) standardized or comparable (Gühnemann 2016); the International Transport Forum (ITF) broad-ranging discussions on sustainable urban mobility indicators emphasize social integration rather than ecological sustainability (Olofsson & Brundell-Freij 2017). None of these is standardized, comparable, or has a long-term perspective.

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### TOOL 2: Your-City-Next

**Producing Cycling Cities: The World Experience Book Series (CC)**

_Cycling Cities: The European Experience_ (2016) covers 14 European cities in nine countries. The richly illustrated book analyzes why cycling thrived in some cities and not in others. It compares cycling to automobility and public transit through a modal-split analysis of the past hundred years. Policymakers aiming to encourage sustainable urban mobility like cycling, walking, and public transit will find several explanations: physical conditions; mobility alternatives to cycling; urban planning models; mobility policy making; and cycling’s cultural status. The first publication _Cycling Cities: The Arnhem-Nijmegen Experience_ (2017) presented at Velocity in the Your-City-Next series serves CES-SUMI (Tool 1) and the Web-based platform (Tools 3 & 4). In 2018, _Cycling Cities: The Hague Experience_ and _Cycling Cities: The Munich Experience_ were published. Books on Johannesburg and Rotterdam will follow mid-2019. Negotiations are under way with Leuven, Lisbon, and Graz.

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**SUM is developing an inclusive urban mobility sustainability indicators within the TFSD framework**

- SUM seeks research funding for easy-to-use Sustainable Urban Mobility Indicators (CES-SUMI) within the TFSD framework for policymakers and educators

**Your-City-Next offers cities the opportunity to participate in the Cycling Cities book series**

- SUM seeks a funding scheme for cities, urban regions, and countries, to participate in the Your-City-Next Project, enabling worldwide comparisons

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[www.sustainableurbanmobility.info](http://www.sustainableurbanmobility.info)
TOOL 3: Bringing Paris Home

Building Public Outreach and Research-based Web Platform (WP)

To bring home the Paris climate goals, SUM is developing a modular web-based platform for students, policymakers, and a wider audience. It will offer insight in the long-term development of sustainable urban mobility. The website will provide high-quality content.

| City-Based Web platform with integrated tools for policymakers, educators, and students |
|---------------------------------|---------------------------------|
| **Story**                        | provides a journey through time and the challenges ahead. |
| **Street**                       | zooms in on key urban intersections through maps and (moving) images. |
| **Map**                          | locates a city’s long-term development through infographics visualizing big data trends. |
| **Data**                         | maps GIS-based modal split data at traffic points over time, combined with SUMI. |

- SUM seeks support for a research-based public outreach platform based on Modal Split (MS) and Sustainable Urban Mobility Indicators (CES-SUMI)

TOOL 4: Bringing Paris to the Classroom

Creating Teaching Module (CTM)

Integrating tools 1, 2, and 3, we zoom in on an intersection, Biography-of-Your-Street as educational tool. The intersection provides quantified vistas (data), narrates people’s urban mobility experiences (story), and offers a visual archeology (image and map). Students will experience—and build—the history of their city through a street or intersection to gain insight in their city’s (sustainable) urban mobility in a global context. The teaching module will enable comparisons with other cities based on the modal-split format and sustainable mobility indicators. The project applies international standards, local sources, and institutions for a shared global approach to sustainable urban mobility.

- SUM seeks support to build the Teaching Tool based on Modal Split (MS) and Sustainable Urban Mobility Indicators (CES-SUMI).

Partners

Europe
- European Union DG Mobility and Transport
- European Cycling Federation (TBA)
- **Luxemburg**
- Ministère du Développement durable et des Infrastructures

Belgium
- Ministry of Transport (TBA)
- City of Leuven

Germany
- City of Munich
- Deutsches Museum

Portugal
- City of Lisbon

The Netherlands
- TU Eindhoven, Innovation Sciences
- Foundation for the History of Technology
- Dutch Science Foundation NWO
- Dutch Ministry of Infrastructure
- Dutch Statistical Agency (CBS)
- City of The Hague
- City of Maastricht
- City of Rotterdam
- City of Arnhem-Nijmegen
- Province of Gelderland

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