Increasing bike traffic in many European countries is a sign of a shift in planning paradigms towards more sustainable mobility cultures. It is also the result of 20 to 30 years of evolution and refinement in the training of urban and transport planners. Capacity development is therefore key when it comes to changing mobility cultures. Nevertheless, the day-to-day work of transport planners still focuses mostly on motorised traffic and the tasks of creating a smooth traffic flow, improving accessibility, and maintaining infrastructure. Cycling plays only a minor role, with efforts often still concentrated on the building of cycle lanes. The broader strategic goal of how to make urban mobility culture more sustainable – and within this the need to focus on cycling as an everyday mode of transport – is often neglected. Direct regulation is not possible when it comes to mobility cultures. Instead they represent a community-wide (communication) process that calls for a new planning paradigm: Besides the political will to establish a sustainable urban mobility culture, emphasis must also be placed on skills and training for urban and transport planners.

Findings and recommendations

- There is huge potential in urban areas for cycling as sustainable transport mode.
- Capacity development for cycling as an integral part of transport planning in the context of either academic education or advanced training is a basic pillar from which to foster effective, high-quality know-how.
- The current cycling boom in Europe can also be seen as a result of a turnaround in the training of urban and transport planners – after three decades of more integrated training, new generations of planners are now beginning to modify planning processes.
- The increase in cycling calls for well-designed and safe public spaces, roads, and bicycle infrastructure. A broader understanding of what else is entailed in the effective integration of cycling into transport and urban planning can be subsumed in the term sustainable mobility culture.
- It takes highly skilled planners to design for a sustainable mobility culture in urban areas.

Sustainable mobility culture

Culture is a dynamic process whereby intended and unintended effects as well as complex feedback may be generated; the idea of linear traffic control is therefore no longer adequate (Götz et al. 2009). Against this background the built environment, vehicles or transport infrastructure do not just exist as such. They are also symbols and subjects of the public discourse. In brief, culture can be seen as a combination of entities – and their symbolic meaning – created by societies. A good example of this is bicycle traffic. The symbolism attached to the bicycle, the way in which it is per-

Figure 1: Urban everyday cyclists
ceived, and the degree of respect shown to it vary in social and cultural milieus. One can influence the public’s respect for bicycle traffic either via rules and restrictions or via a shift in meaning. The term ‘mobility culture’ today is used in a number of contexts in the current debate on sustainable mobility and livable cities. The introduction of the ‘economic’, ‘ecological’ and ‘social’ triad determines the regulatory framework within which transport and mobility ought to develop. According to this way of thinking, a more sustainable mobility culture includes all transport modes and is multioptionable. This means that there is no single universal mode of transport which fulfils all travel needs and demands. Multi-optionality means that citizens have many options as to which transport mode is the most suitable, effective and enjoyable for their trip (Deffner et al. 2014). One is highly unlikely to find the item ‘sustainable mobility culture’ among the everyday tasks of municipal transport planners and decision makers. The focus is still to achieve a smooth and safe traffic flow, organize vehicle parking, and maintain traffic infrastructure. Cycling as a priority often comes a poor second and is mostly limited to the construction of cycling lanes. However, new bike lanes as a sole measure will not change citizens’ habits. Instead, planners need to ask themselves how to get people to use the bike. So what is missing in order to move in that direction? We found two important aspects lacking: a planning approach towards a more sustainable mobility culture and skilled staff in urban and transport planning.

Communication and participation are crucial

There are different pathways leading to a sustainable mobility culture. The promotion of everyday cycling is a continuous process which needs more than just carefully considered investments in safe bicycle infrastructure. As mentioned above, a person’s decision to use the bicycle as an everyday means of transport is not influenced by infrastructure alone. It is therefore crucial to understand that travel behaviour is influenced more by lifestyles and long-term mobility habits than by short-term rational choices. Communication and participation are the main parameters for firmly establishing a sustainable mobility culture. Respecting the three following levels of communication is essential if one is to achieve a change in the mobility culture and promote the urban use of bicycles in the middle term:

- Providing possibilities of self-regulation in traffic via adequate infrastructure which invites communication of traffic participants. An example would be self-regulation within a special traffic space under “new” rules as set out in ‘shared space’ concepts.
- Flow of information and presentation and staging of news – for which public relations and social marketing methods are applied. New transport possibilities must be conveyed as something meaningful and practical, but they must also be aesthetically and coherently designed to ensure their sensuous and emotional appeal.
- Feedback and exchange: Here, city administrations or traffic providers involve users in relevant aspects of planning. But this also refers to...
channels where users have opportunity to provide feedback on their experiences and needs. An example is feedback arising from a re-designed traffic space.

For this integrated approach, it is necessary to strengthen the capacities of cycling planners responsible for cycling planning at the municipal or regional level in terms of their engineering skills, strategic policy thinking and communication skills:

- Adopting a progressive and to some extent innovative outlook on transport construction in the absence of ready-made solutions or adequate regulations for bike traffic;
- Understanding cycling as a system not only manifested in cycling lanes but as a) part of strategic urban and transport planning, b) infrastructure and c) services such as bicycle parking, good integration with public transport, signing and route panning etc.;
- Using communication skills for participatory and informational processes to include citizens and other stakeholders in the planning and implementation of cycling measures (e.g. health sector, youth work, retailers).

Seven reasons why cycling encourages a sustainable urban mobility culture
(cited and adapted from Urbanzcyk 2011 in Deffner et al. 2012)

| Quality of life & public spaces. | 1. Cycling makes cities more livable places. It enables people to notice and interact with their environment. It helps create a sense of place and belonging, and positively influences community spirit. 2. Urban living conditions today are severely affected by traffic noise. Improved cycling conditions invite people to substitute the car for silent modes of transport over short distances and so contribute to reduced noise levels. |
| Cycling is cost effective. | 1. Replacing some short car trips contributes significantly to cost savings for fuel, parking, and maintenance in private households. It is estimated that leaving the car at home could save around 90 euros per week for an average commuter (e.g. UK). 2. In many cities and towns the bike is the quickest mode of transport. For distances up to five kilometres in an urban environment, the bicycle is generally faster than any other mode of transport. 3. strengthens local small and medium retailers, as cyclists shop for smaller amounts but are more flexible, dropping in at stores more often. Overall studies have revealed a financial return on investment from implementing cycling measures. Both infrastructure and promotion measures produce a positive return. |
| Cycling is healthy. | According to WHO, physical inactivity is the most important health risk in industrial societies after tobacco consumption. Cycling increases fitness and can be integrated into daily activities such as commuting or going shopping. It improves resistance to minor ailments and can thus play a key role for public health. |
| Cycling is safe. | In cities with few cyclists, cycling is often perceived as dangerous. The presence of helmets, reflective vests, etc. emphasises the dangerous image of cycling. Over time, the increase of cyclists is accompanied by a decrease in cycling accidents. |
| Cycling preserves the European urban heritage. | European cities are unique. They have compact structures which enable living, working and recreation to take place within close proximity. The paradigm of dense and mixed settlement structures and short distances is perfect for cycling. It supports a reduction in trip lengths and in the use of motorised transport. European cities lack space and therefore need spatially efficient transport systems. Bicycle infrastructure fits easily into dense or historic city patterns and does not necessarily require large scale building and investment in the urban centres. |
| Cycling is a green technology. | While climate change and oil depletion are ongoing topics of global debate, the environmental effects of emissions from motorised transport at a local level also continue to represent an urgent issue. Even a modest increase in the cycling share of the modal split could rapidly reduce transport emissions by 6%. |
| Cycling is fun and flexible. | Cycling is fun as it allows flexibility and freedom, and stimulates our motor senses. |
How to overcome main obstacles

Typical obstacles that may hinder the development of sustainable mobility cultures could be overcome with the following key measures:

- **Give cycling legislation and policy a nudge by establishing national working groups:** Many countries are just starting to set up such groups designed to bring about a national exchange of experience. They help promote communication between decision makers.

- **Focus on the level of cycling development:** This influences which measures should be taken. In the EU project PRESTO (www.presto.eu) a tool was developed to help classify the stage of development. Starter, Climber and Champion cities require a different policy mix of infrastructure and promotion efforts.

- **Be a strong stakeholder:** Changes in mobility cultures are often triggered by key multipliers. Such actors are able to reach political consensus so that efforts can be continuous rather than stopping after the next election period. An ongoing political will in favour of cycling is the best way of acquiring and securing the financial basis from different local, national and international sectors (transport, health, education).

- **Take care of capacity development** by means of:
  - **Training:** The education of engineers or planners in many European countries does not reflect the depth of skills and the fields of expertise needed to form a good support basis for cycling policies. However, many initiatives and organisations now offer such training.
  - **Comprehensive material** (currently often available in English only).
  - **Visiting the planners and politicians responsible for good examples.** Such examples from front-runner countries are inspiring. As it is not possible to transfer these examples one to one to another country, it is important to learn about the success factors and the context to find analogies and comparable solutions for the local context.

- **Allow participation** to bring about greater transparency of stakeholders’ views, needs and demands, which can then be taken into consideration. Users, officials, and decision makers are essential elements when it comes to changing a mobility culture.

- **Use social marketing** to get people on the bike: Rational and emotional communication can boost awareness of infrastructure or services, thus promoting their use.

- **Just do it:** Sometimes simple and in a way non permanent changes allow traffic participants to learn about and adopt a new type of service or arrangement.

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The EU-funded project Mobile2020 focused on capacity development in Central and Eastern European countries.

- **During the project’s lifetime many national working groups for cycling policy were established or revived.**
- **Multipliers** in 11 countries were trained over 7 months and visited good examples in four European front-runner cities.

- **A comprehensive handbook on cycling planning was prepared and exists in 12 European languages.** The handbook refers to the concept of urban mobility cultures and includes technical planning, communication and marketing topics. In some countries it is the first compilation of know-how in the national language.
ISO E is one of the leading non-university institutes for sustainability research. For 25 years, the institute has been developing the scientific foundation for decision making, as well as future-orientated concepts for policy makers, civil society and economy on a regional, national, and international level. Among the research foci are water, energy, climate protection, mobility and urban spaces, as well as biodiversity and people.

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