ECOMOBILEUROPE

Stories of ecomobility from the eyes of an urban cyclist

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EcomobilEuropE was officially endorsed by:

Executive summary

The current status of urban mobility and transportation is among the factors causing a significant **deterioration of the quality of urban life**. Problems range from the impact on the local environment and on climate change, to the economic costs of an extremely inefficient use of the urban space and the residents' time, to social issues related to people's health or inclusion.

Vis-à-vis an increasingly dramatic situation, urbanites and policy-makers are **looking into traditional and innovative ways of commuting that can reduce the environmental, social and economic damages**. Indeed a whole new approach to a more sustainable mobility mode is required. *EcomobilEuropE* is an initiative that aimed at exploring the current status of mobility in European cities and raising awareness on the opportunities of a more sustainable approach. The initiative consisted of a **bike journey of about 3000 km to meet and discuss with stakeholders** including local and international policy makers, ecomobility experts, bike makers, cyclists, members of associations, volunteers, professionals and many more.

A city's mobility pattern does not depend on the local topography or on the weather. Indeed, it is the consequence of a history of political choices, driven by the local culture, economy, and demography. It is absolutely possible to achieve ecomobile cities in any kind of geographical settings, provided that stakeholders are engaged and citizens have the capacity of envisioning a different future.

There are **different solutions for a city to achieve more sustainable urban mobilities**. **Ecomobility is the one that today reaches the highest consensus.** The concept refers to a new way of moving cities through affordable, socially inclusive, and environmentally-friendly commuting options, including and integrating walking, cycling, public transport…

A whole range of actors have responsibilities in the field of urban mobility and work to promote ecomobility: **local governments, bicycle associations and movements, international organisations and city networks, business and all kinds of artist**. The city is the stage where all these actors (and others) meet and compete: achieving ecomobility goes through a consideration of all different perspectives and a mediation between them.

Similarly to other fields of sustainable development, a sustainable approach to urban mobility has to do with granting to future generations actual possibilities to achieve their desired well-being. A major goal of ecomobility, however, is also to ensure a good quality of life to the present generation, **improving the liveability of our cities today**.

A crucial characteristic of ecomobility is the **freedom to choose**, i.e. choosing the most suitable option for moving, as well as choosing the vision for the future city to be. Indeed, promote sustainable mobility means to make urban residents really free, while respecting everyone else's freedom to choose too. This freedom is strictly linked to the **importance of building socially inclusive cities**, without forgetting the weakest segments of society.

There are different initiatives and strategies that can lead a city to be more ecomobile. A comprehensive ecomobility approach aims at **ensuring an adequate mix of different means of transport,** to be used according to the occasions and the personal needs. Given the private-car bias that has shaped our cities recent development, however, many policies are about 'pulling' urbanites out of the car, and 'pushing' them into other means of transportation.

The bicycle is one of many possibilities to achieve sustainable mobility, yet a very emblematic one. Promoting urban cyclability goes through the development of adequate infrastructures, as well as through a behavioural change of all of the city residents and street users. Each city shall find an adequate mix of top-down and bottom-up initiatives to ensure that bikes become a fully legitimate and possible mode of urban transportation.

Introduction

Urban mobility is running before the wind. Vis-à-vis cities which are polluted and polluting, congested and chaotic, unhealthy and segregated, urbanites and policy-makers increasingly look into traditional and innovative ways of commuting to improve the quality of life of individuals and communities and the health of the planet. Numerous stakeholders are active to find out solutions which make it possible to enhance mobility options of urban residents and at the same time do not represent a burden for their fellow urbanites. These stakeholders come from the public institutions, the civil society and the business sector. In the urban arena they find ways to join hands but also to compete and to fight, reflecting different interests and political demands.

Throughout Europe and the world, these actors adopted different practices which reflect the social and physical characteristics of cities but have the common goal of achieving more sustainable mobility patterns. Their initiatives and actions are extremely differentiated, ranging from using all

Box # 1. Sustainable mobilities & Ecomobility

In line with the definitions that are traditionally attributed to sustainability, **sustainable mobilities are defined as models of urban mobility that meet the mobility needs of the present without compromising the ability of future generations to meet their own needs**. This implies the adoption of mobility practices that allow access and circulation of people and goods, while ensuring the life quality of all citizens today and tomorrow.

Ecomobility is a comprehensive approach to urban mobility, which aims at making it more sustainable. Is one way among many to achieve sustainable mobility. As per the definition given by the EcoMobility Alliance, Ecomobility means "travelling through integrated, socially inclusive, and environmentally-friendly transport options, including and integrating walking, cycling, wheeling, and passenging.

Avignon: the bike sharing scheme Vélopop'

different transportation modes for the same commute, to not move at all. One common, yet revolutionary, framework that include many of these solutions is Ecomobility. The concept refers to a set of traditional and innovative ways of commuting implying a range of environmental, social and economic benefits. Moving toward eco-mobile cities means, for instance, reducing the carbon footprint and the PM content per kilometre travelled. It means moving toward cities where commutes are quick, affordable, pleasant and possibly short. It means shaping cities and habits that make people really free to choose a way of moving around which is convenient for them and for their whole community.

As European environmentalist, passionate for cities and urban issues, I initiated the project *EcomobilEuropE* to explore the status of (eco)mobility in Europe and to raise awareness on the opportunities it carries. I travelled by bike and by train throughout western Europe to meet urban mobility stakeholders, to see what they do and to try understand the challenges and the opportunities of ecomobility. This report aims to pull together all experiences and good practices I have seen throughout Europe. It is not necessarily to a comprehensive list of all existing realities but I hope it will provide some inspiring insights on the topic.

In the following sections I will start by explaining more about *EcomobilEuropE* and its partners; I will draft a map of the typologies of stakeholder working on

ecomobility; and I will describe how these actors approach the issue of mobility and of urban cyclability through initiatives and projects. At the end of the report, I will try to draw some conclusions and provide recommendations for action. While the themes I will be touching are common of many cities of the world, this report refers to Western European cities, and in particular Italian, French, Belgian, Dutch, German and Swiss cities, which are the ones I biked through. Maybe in the future, I will take the bike to go see some other place too.

1 EcomobilEuropE

1.1. The Project

EcomobilEuropE is an initiative that aimed at **(a) exploring the current status of mobility and eco-mobility in Europe** (e.g. understand what is eco-mobility, who are the stakeholders, what are the reasons behind success and failure…); and **(b) raising awareness on the opportunities of eco-mobility** (e.g. spread information about successful stories, and about the benefits for urban dwellers and for the planet…). A diary-type reporting of *EcomobilEuropE* is outside of the purpose of this report, but I believe that some notes and numbers on how the initiative rolled out can be useful to understand the spirit and what it actually meant.

EcomobilEuropE **was a mix of activism, research, policy work, networking and adventure.** I could learn and exchange with professionals, catch up with colleagues and friends, explore a big portion of Europe I did not know. I connected with stakeholders, I grew my understanding of urban mobility, I got inspired by the passion of many activists and smart urbanites, I got engaged to a wonderful woman, I learned how to fix my bike. From May 1st to July 2nd 2014, I travelled across numerous cities in Italy, France, Monaco, Belgium, the Netherlands, Germany and Switzerland. I travelled 3,281 km by bike, and about 2,000 by train. I published some 40 posts on my blog and shared a good number of tweets, pictures and links.

During the trip I shared meals and stories (on ecomobility and on many other things) with a number of incredible people. I also had 54 meetings and discussions with policy makers, ecomobility experts, bike makers, cyclists, members of associations, volunteers, professionals and many more. I could also exchange information per email with 7 more institutions and a number of people who followed my project online. At different stages, 18 people have joined the trip and biked with me for a total of about 5,000 kilometres. The initiative could count on the time that many people dedicated to meet me and bike with me, as well as on the generosity of many others. I could reduce to the minimum the food and accommodation costs thanks to the hospitality of 45 homes and I received donations for a total of 455 €. To all these people, goes a sincere *Grazie!*

1.2. Partners & Participants

EcomobilEuropE was officially endorsed by:

Il Comune di Vicenza
[The City of Vicenza]

Vicenza, in the north-east of Italy, is the city where my family lives and where I grew up. It is also the city where *EcomobilEuropE* started and ended. The Municipality has symbolically joined the initiative and given her official endorsement (i.e. *patrocinio*), considering it valuable for its cultural and social purposes, and recognising in *EcomobilEuropE* a form of promoting the image of Vicenza and its effort toward sustainable mobility.
(www.comune.vicenza.it/)

FIAB - Federazione Italiana Amici della Bicicletta
[Italian Federation of Bike Users associations]

FIAB is an environmentalist organisation, federating more than 130 autonomous bike users local associations . Its purpose is to promote the bicycle as an ecological mean of transportation, which use has a positive impact on the urban and the extra-urban environment. FIAB and its members advocate by policy makers to promote a safe and comfortable use of bicycles, and to improve urban quality of life through bike lanes, traffic moderation, intermodality, …
(fiab-onlus.it/)

The Ecomobility World Festival

EcoMobility World Festival is a one-month presentation of an innovative and forward thinking urban transportation culture. One neighbourhood temporarily converted into an "ecomobile neighbourhood" presents a real-life vision of car-free urban living for the future. The Festival concept was initiated by ICLEI – Local Governments for Sustainability, that wanted to show that an truly ecomobile lifestyle can be implemented in cities all over the world. In 2013 in South Korea, UN-Habitat and the Municipality of Suwon joined hands with ICLEI in organising the first edition of the Festival. The next edition will be held in Berlin, Germany, in May 2015.
(www.ecomobilityfestival.org)

2 Urban mobility: Setting the stage

2.1. What is urban mobility?

This report is about urban mobility, and in particular on how people move inside a city. It has to do with commuting habits, with policy making, with the culture of people, with social and technological innovation. As a matter of fact, ensuring that the way a city moves promotes citizens health, safety, and access to people and goods with cost effective means has always been an important issue for the well being of every city. Throughout history, we can see how different challenges have shaped the commuting habits of urbanites, and how residents and governments have found (or not) solutions to address them effectively.

Our days' cities –in this report we look at Western European ones- are also characterised by mobility issues, far from being solved. A more than two thousands years of urban history coupled with a fairly large and wealthy population and a mainly car-oriented infrastructural development proved almost everywhere to be unsustainable. Indeed, **in a very differentiated panorama it is possible to identify some common challenges**, the intensity of which varies depending on the history and on the current status of the city.

2.2. Problems and challenges of the cities of today

The **congested roads** that characterise many medium and large cities represent a significant cost in terms of the time loss when people and goods move around, and in terms of quality of life which falls while being trapped for hours in the urban jungle. The amount of **urban space which is dedicated to cars** (and in particular idle cars) is also a big cost that shall be taken into account in cities where the scarce surface is increasingly expensive.

The **environmental impacts** of current mobility models are also increasingly recognised by citizens as an unsustainable

burden. The road transport is responsible for an average 40% of cities CO2 emissions, the main green house gas leading to **climate change**. At the same time, the excessive use of motorised means of transports also deteriorates severely the quality of the **local environment** (e.g. urban traffic is responsible for 70% of pollutants in the environment, including PM, noise…….) and thus to the quality of the urban life (civitas.eu).

Current urban mobility models, moreover, are directly related to a range of **health issues**. These are often a consequence of less active habits, as well as of the diseases related to a low air quality and to stress. Finally, the way cities move today present severe limitations in terms of **inclusiveness**. A city where most transportation infrastructures are designed for the comfort of cars is a city which forgets all the citizens who do not use it. These are people who cannot afford it, who are physically unable to use it (e.g. elderly and disabled people), and who simply do not want to use it. And the share of this people seems to be increasingly large.

2.3. Toward a sustainable mobility model

All people I met and interviewed as part of *EcomobilEuropE*, agreed that the current models of urban mobility can and have to be improved. They all agree that these are models which are not sustainable any longer -if ever they have been. In the seek of an alternative, people often refer precisely to an urban mobility model which is sustainable in the short and in the long term.

Now, the narrative on sustainability (e.g. sustainable development…) typically refers models of development aiming to match the achievements of today's needs, with a consideration of the well-being of future generations[1]. **When it comes to mobility, however, stakeholders are concerned with**

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[1] "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" World Commission on Environment and Development (WCED). Our common future. Oxford: Oxford University Press, 1987 p. 43

In Lausanne buses welcome all users on the wheels

today's problems. While the current mobility approach does produce consequences which will compromise the ability of future generations to meet their own needs, it also has a very direct impact of the quality of life of our present generation. The challenges and the solutions related to sustainable mobility are today's matter!

In the same context, people have also indicated a whole range of possible solutions, or at least a direction communities shall go toward. A detailed account of those solutions is the content of part 4. What came out from all different perspectives is the one condition that future mobility model shall take into account: the freedom to chose. **Produce sustainable mobility means to make urban residents really free to choose their best preferred means of transport**. Of course, a freedom which respects everyone else's freedom to choose too.

At a first sight, it might seem that most people are free to pick the means of transportation most suitable to their needs: formally there is no limitation to walk, to bike, to take the public transport, or, if people have one, to take the car. As a matter of fact, though**, this choice is severely limited by factors which change from city to city**. In some cases public transport is late, crowded and does not reach all destinations. In other

cases the smog and the traffic make the biking and the walking option unhealthy and dangerous. Even car drivers, most of the times, cannot count on a quick and relaxing commute.

2.4. Ecomobility as the way forward

While the current problems and challenges of urban mobility can be identified in a fairly accurate manner. Finding and implementing adequate solutions is a more complex question. Mobility solutions need to allow citizens to freely pick the most suitable option, and at the same time take into account limitations of all kind (historical, technological, demographic, environmental, economic, other people's choices …).

Ecomobility is probably the most popular solution to achieve sustainable mobility. It is not a panacea which provides an answer to all specific problem: it indicates a new approach to mobility that highlights the importance of public and non-motorized transport and promotes an integrated use of all modes in a city. As per the definition given by ICLEI's EcoMobility Alliance, EcoMobility means "travelling through integrated, socially inclusive, and environmentally-friendly transport options, including and integrating walking, cycling, wheeling, and passenging. By enabling citizens and organizations to access goods, services, and information in a sustainable manner, **EcoMobility supports citizens' quality of life, increases travel choices, and promotes social cohesion.** EcoMobility is environmentally sustainable and socially inclusive"(ecomobility.org).

Pedestrians, bikes, tramways, cars: multimodal Montpellier

Box # 2 . A privileged commuter

Considering that the bike was my main means of transportation, I acknowledge a certain bias of my perspective. After all, the large majority of the stakeholders I met were related to biking more than to any other ecomobility solution (e.g. bike users associations, bike producers, bike messengers, bike coops…). Nevertheless, **while promoting the use of bikes is indeed just one of many possibilities, I came to believe that it is a very emblematic one**. The environmental footprint of a bike is low; the commute is quick, cheap and healthy; the space taken on the road by moving and standing bikes is fairly small. Where there are schemes for bike sharing, moreover, the bicycle has also become a successful form of public transport.

Finally, **cyclists have a very privileged perspective on how the city moves**. On one hand they are similar to pedestrians and, like pedestrians, they are vulnerable to accidents and are directly connected with the environment around them (cyclists feel immediately the consequences of the weather, the slope of the street, the quality of the air and of the urban environment). At the same time, though, pedestrians mostly use a very well protected area, segregated from the rest of the street. Bikes have to share their space with cars and buses and experience every day the problems related to traffic congestion, road safety and parking. For this reason, very often discussing with cyclists can be extremely useful to understand the challenges and the opportunities that mobility offers.

3 The actors

An important component of *EcomobilEuropE* consisted in **researching on and meeting stakeholders working on issues related to mobility and sustainable mobility in cities**. The list of meetings was based on my personal academic and work experience, on desk research and real life observation, on suggestions from friends, colleagues and institutions met on the way (e.g. a sort of snow-ball process), and of course on the availability of the counterparts to answer to my emails and to actually meet me.

I am aware that I only met a very limited portion of all people and institutions working on the topic: sometimes I did not manage to contact them, sometimes I did not have the time, and sometimes I got to know them too late. I keep receiving suggestions and recommendations to link up with other people, I also continuously find about associations and initiatives which I could have visited during the journey, finally there is a great number of ecomobility stakeholders which I will probably never meet or know about. My analysis below, therefore, does not aim to be a comprehensive list of all stakeholders, but an account of the impressions and the discussions I had while biking around Europe.

I classified the people and the institutions in five big groups. While I recognise the existing risk to oversimplify, I believe that **this classification can help to have a clearer insight on the different perspectives, challenges and opportunities**. Obviously, the classification only has an analytical purpose and the limitation between groups in real life is often much more blurred that it might seem from this report.

3.1. Local governments: elected officials and technical experts

Local governments are probably the most important actor in the governance of a city's mobility framework. In most cases, they are responsible for the city's urban mobility plan; they overview the development and the management of the public transportation network; they decide upon and they implement local traffic regulation. Most of all, **local governments are the institution which residents and businesses refer to when there is a problem to be solved or a new direction to be taken** (e.g. through elections, petitions, street protests, informal hearings, …).

Indeed, the most distinctive feature of the role of local governments is that they are the **mediator of a political demand** which is often extremely differentiated. While bike users associations and movements, for instance, normally push for innovative pro-ecomobility policies, local government are subject to the pressure of other interest groups that want to preserve the current situation (e.g. automobile lobbies, car owners, retailers). Even in cities where ecomobility has reached a certain consensus, moreover, there are different options that might be taken: more or less radical, pro-city centre or pro-periphery, public transport or soft mobility. The challenge is that often **"politics responds to the voters expectation in a way that perpetuates the *status quo*. The key to success for a mayor, on the other hand, is to anticipate the changing environment and propose a vision of how urban mobility might (and shall) look like tomorrow"** (Edoardo Croci, Bocconi University, Professor, formerly: *assessore* to the City of Milan, interviewed on May 3rd, Milan).

The discussion with elected officials and technical experts has highlighted a broad range of different of different key issues when it comes to sustainable mobilities. Depending on the way we look at them, these are challenges that local government find on their way, or opportunities for policy

meeting with the Mayor of Pforzheim and his staff

Box # 3. Is ecomobility right- or left-wing politics?

Discussing with different stakeholders, and in particular elected officials, brought up the question on whether sustainable mobility is part of the political programme of the left or of the right. As a matter of fact, the way it is declined today makes it a cross-cutting theme, which is often present on both sides.

The problem is that both the right and the left have good reasons to vote against sustainable mobility. In particular the market-based schemes are particularly opposed by the left wing, as they tend to penalise the poorest residents. Taxes, and service charges, on the other hand, are hardly accepted by the right wing parties.

The good news, though, that I met many city leaders able to go beyond the left-right debate and to promote sound policies with the votes of their supporters and of the opposition.

innovation. The one issue that came out the most often refers to the scarcity of resources. In economic crisis times, public budgets have been cut in most cities; decentralisation processes, moreover, have meant for municipalities more responsibilities with no additional contribution from the state. In a situation like this, those **initiatives where the resources to promote ecomobility are found within the transportation sector itself** result particularly interesting. In Milan, for instance, the resources raised through the congestion charge (*Area C*) have been used to promote public transport and the bike sharing scheme '*bike-mi*'.

An other important challenge (opportunity?) is that **ecomobility is a cross-cutting issue**, and as such there are different bodies within and outside the municipality which have a mandate to work on it. In Italy, for instance, many municipalities have said to be favourable to the bicycle contra-flow lanes; but the state, which is competent over the traffic code, has recently ruled against it. Conversely, the common interest of multiple actors might also be an important resource,

as in the case of Vicenza, where the head of transportation department told me to have found an unexpected partner to promote walking and other forms of active mobility in the prevention and health care department (Marco Antonio Dalla Pozza, City of Vicenza, *assessore*, Interviewed on April 29th Vicenza). The municipality of Eindhoven has gone even further and has developed inter-department cooperation schemes as an explicit strategy to promote sustainable mobilities. As part of the EU sponsored CARMA project, the municipality had to form an internal network of colleagues working in different departments on issues related to biking (environment, health, transportation…), and external network of stakeholders from the civil society to discuss the city's vision for the future and provide inputs for the bike agenda (Bas Braakman, City of Eindhoven, cyclability expert, interviewed on June 2nd, Eindhoven…).

3.2. Bike associations and movements

While local government are probably the main actor in the public sphere of the ecomobility arena, CBOs are the ones that bring the bottom-up perspective in the debate. Travelling across Europe on a bike allowed me to meet a whole range of different groups of citizens that join hands around the bike: ranging from the fairly institutionalised bike users associations to the movements with no leader nor structure. What all these groups have in common is to **regroup active citizens sharing the idea that the bicycle is a simple solutions to many of our city's problems, related or not to urban mobility.** Their activities include awareness raising with the general public and lobbying policy makers, providing services to members and other cyclists, using the bike as a mean of social promotion and community development.

In the large majority of cities I visited, there was a **bike-users association** that could meet me and take me around the city. Indeed, throughout Europe there is a fairly

"Promoting sustainable mobility it isn't simply protect today's cyclists. It also means to make new people using the bike; encourage and help families to give up to the second (and third, and fourth…) car".

Pierfrancesco Maran, City of Milan, *assessore,* **Milan**

Coding my bike at REVV, Valence

"The great value of a bike, is that everybody can quickly get to understand the way it works and its whole mechanics. At the bike coop, everybody becomes an artist and a bike-maker. You learn to do stuff you never did before, and you always get out with dirty hands and a smiley face."

Adriano, ciclofficina +BC, Milan

well structured network of national and local associations, linked together under the 'European Cyclist Federation - ECF" (FIAB, which officially endorsed *EcomobiliEuropE*, is the consortium of Italian bike-users associations, and in turn is a member of ECF). The role of these associations is normally aggregating the political demand of bike users to interact with policy makers, advocate for better conditions and provide specialised expertise. They are sometimes officially recognised as the voice of bike users, they might have a channel to regularly reach the institutions (e.g. meetings with elected officials, right of word into public hearings…) or go through the press to do so. Also, bike associations promote biking with the general public, raising awareness about the benefits of biking, and about the issues to pay attention to. In many cases they even organise bike couching and tutorials to teach beginners to ride in the traffic. Finally, associations provide services to their members and other cyclists, such as bike registration, suggestions, organised tours, lock testing, etc. , and definitely represent a good opportunity to get together.

Along the journey I also often stopped to repair my bike in a **bike coop (or *ciclofficina* in Italy, *atelier partagé* in France, *Bike Kitchen* in Germany, …).** These are garages where anybody can go and share tools and knowledge to repair an old bike, *re-Cycle* materials to build a new one, make art out of

Group picture before departure at the bike-coop of Roulons à Vélo, *Avignon*

"I visited once a neighbourhood in Sophia with an excellent park&ride scheme. I contacted the city to know more about that, and the person I talked to explained to me that the scheme was developed after a Euro Cities workshop on integrated mobility.

Melanie Leroy, Euro Cities, Brussels

it, share a meal or a story. The idea of a bike coop is very different from a bike shop or a mechanic. The key is that a coop does not offer a service, instead it is a place where people can do by themselves what they need, putting in common what they don't find at home (tools, space, specialised knowledge, a passion). In Milan's *Ciclofficina +BC*, I asked to speak to somebody who worked there: I was told that nobody did. In fact, everybody is at the same time service beneficiary and service provider. When repairing bikes is not enough, the most expert (creative?!?) ones get together to create new bikes, as the piano-bike with the keyboard integrated in the handlebar that they are building in Milan.

At the end of the spectrum of mobility stakeholders you have more or less structured movements of awareness raising or protest, such as the so called *Critical Mass* (or *Vélorution*). This is a global movement of cyclists who gathers regularly and bike together for few hours around the city. There are various types of gathering and various motivations behind it: there are groups who always follow the rules of the traffic, other who don't; groups who decide to dress in a funny way, and other who like to bike naked. Some cyclists join the movement for leisure, others to protest against the way cars have invaded the urban space. Sometimes the police understands the reasons of the cyclists and ride along, sometimes there is open conflict. **"When you bike with dozens of fellows, cars will have to notice you and pay attention: you are still the weakest user of the road, but the number (i.e. the critical mass) helps to go beyond this weakness"**, says Paolo, during a gathering in Brussels. Indeed, what all Critical Masses of the world have in common is the principle that bikes are also part of the urban traffic, and for a few hours they want to make it very evident.

3.3. International organisations and city networks

Urban mobility is definitely a very local matter. **Local stakeholders, however, can count on a number of tools and resources made available by international institutions also working on the topic.** As part of *EcomobilEuropE*, I met representatives of intergovernmental organisations (European Commission, OECD, …) and of city networks (ICLEI, Covenant of Mayors, Euro Cities…). Even if the constituencies of these two groups are different – the former count on a membership of national states, whereas the latter are networks of local governments – the way they contribute to urban mobility is fairly similar.

One of the main role of international institutions is to **connect local stakeholders among each other and with other levels of government.** The purpose is to ensure coordinated action, make the best of possible synergies, channel resources where they are needed, empower those actors that have the greatest potential to solve a problem. Fostering the dialogue on mobility related themes, e.g. through conferences and festivals, is important to raise awareness about the common challenges, generate knowledge about success and failure, promote peer-learning dynamics on good practices and effective solutions. International institutions, also, often provide the technical expertise which might be lacking at the local level. This is the case, for instance, for the OECD Green Cities programme where a team of international experts carries out research to back policies at the local level. Similarly most city networks organise workshops and seminars to build capacity of local governments on specific issues.

As part of their coordination and overview role, international institutions have the capacity to develop policy tools and conceptual tools that become extremely useful at the local level (the concept itself of ecomobility, for instance, owes its widespread success to the work of ICLEI on the topic). **"The challenge is to find the balance allowing for specificity but avoiding useless fragmentation"**, explained

'Fair play, please'

to me Vincent Leiner of the EC Directorate-General for Mobility and Transport (interviewed on May 28th, Brussels). Urban mobility is an issue with extremely 'local' features, depending on a broad range of factors, and solutions to promote ecomobility shall be tailored for each city. At the same time, though, many of the challenges are similar and coordination and dialogue schemes carry a great potential: in many cases it is not necessary to reinvent the wheel (quite literally) and it results much more effective to adopt all together the same solutions (Think of how complicated would be to travel from city to city if the traffic signs were always different!).

Unsurprisingly, all people I talked to have underlined that **there is no one solution that international institutions can provide**. Rather, local governments are given a whole range of policy options, with guiding principles on how to chose and recommendations on the direction to take. Locally tailored solutions are not only the best option because they are well adapted to a city's geographic, cultural and socio-economic characteristics. For mobility, as well as for many other things, in fact, it is crucial the sense of ownership that a city develops for a strategy toward sustainable development and this only happens if it is the

"Imagination is limited by knowledge. Policy makers can't imagine a city without car: they don't know it. Our role is to show the city of the future."
Sunny Kodukula, ICLEI, Bonn

city who has the final word.

3.4. Businesses & private actors

The large majority of the people I met, talked about ecomobility as an approach to mobility which respects the people and the environment. Indeed, as we are trying to show with this report, ecomobility solutions allow to reduce the ecological footprint of commutes, promote a healthy lifestyle, and in general improve a city's quality of life. **Ecomobility, though, is also an expanding market niche, which businesses are exploring from different angles**. Through *EcomobilEuropE*, I came across different realities of enterprises that see the potential of the sector and sell goods and services which also contribute to developing

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Box # 4. Ecomobility Alliance

The EcoMobility Alliance is an network of local governments and other ecomobility stakeholders which aims to promote EcoMobility internationally in both industrialized and developing countries. The Alliance's key activity areas are:

➢ Set the standards on how to measure EcoMobility in cities. The Global Alliance, through ICLEI, is coordinating the EcoMobility SHIFT project, which will establish a labeling scheme and a quality management system to stimulate cites in improving their sustainable mobility policies.

➢ Promote and advocate for EcoMobility in cities, towns and rural settlements on the basis of its beneficial effects on health conditions, air cleanness, noise avoidance, efficient use of public space, energy efficiency and citizens' savings.

➢ Encourage investment and identify opportunities for improvement in EcoMobility infrastructure and systems in order to make EcoMobility a feasible and attractive mobility option for people around the world.

see more at: www.ecomobility.org

Box # 5. Bike miles – the more you bike the more you win

Have you seen that movie: "Up in the air" ?

George Clooney flies around the US and the more he flies the more he collects miles on his card, boosting his ego and benefiting from all good services of America's airports. Well, Janine Hogendoorn, from Amsterdam, has the dream of applying the same principle to bicycle's miles to promote a healthier community in a better planet.

The dream, in fact, is not far from realty thanks to Ring-ring: the app she developed to track record of the miles that people accrue while biking. Cyclists can download the app on their phone and turn on the GPS. Thanks to an algorithm that considers acceleration and speed, the app activates automatically every time the user get on her bike.

Cyclists can then 'use' the miles to get, for instance, a discount on their shopping. In the future, Janine would like 'ring-ring' to become a way for people to have discounts when signing a health insurances, receive mobility bonuses by their employers, and to inform local policy making. There are different actors who can benefit from biking (e.g. cyclists themselves, health insurances, employers, local governments and shop owners), and *Ring-Ring* offers a possibility to reward good practices through the common currency of bike mileage.

see more at: www.ring-ring.nu/

ecomobile cities.

The first industry people think of is probably the bike industry. Throughout my journey I met many (more and less honest) bike mechanics and bike shops. Their activity, of course, is directly related to the bike use in cities, and there is not much new about the way they work. What is booming, I believe, is a **new way to sell bikes: not merely as a means of transport, but also as status symbol**. This was already (at least partially) the case for sport biking, but now is involving urban biking too. A bike-shop manager, for instance, told me very clearly: **"People come here to buy bikes which aren't simply practical, they are cool. I am actually selling a lifestyle to my costumers"**. (Robert Mende, *Bundes Rad Bonn,* shop manager, interviewed on June 14th, Bonn), Similarly, in different cities, bar and coffee shops designed for cyclists are more and more popular: bike lovers can find here specialised magazines, accessories and bikes, like minded people… (e.g. Up-cycle in Milan, or Lola Bikes & Coffee in The Hague)

Another industry which runs along the new popularity of bikes is tourism. Travels by bike are an increasingly popular holiday option, both for those who like adventure (e.g. a good movie on this is *Janapar: Love on a Bike*, by J. Newton and T. Allen) and for those who like to relax while slowly crossing beautiful landscapes. Along European bike routes, for instance, you often meet cyclists

on an orange bike: they are the groups of *Girolibero*, an Italian travel agent specialised in bike holidays of all kinds. **Cyclo-tourism** is also an economic opportunity for the localities they cross, often more than other kinds of tourism, and **is also related to the bike use in cities, allowing people to discover the bike and the capacity they have to cross many kilometres**.

Girolibero bike fellows, southern France

Finally I came to discover an other kind of business that found market opportunities in the ecomobility sector. It consists of enterprises and consultancy firms that provide mobility services to private and institutions, helping them to reduce their running costs. This is the case, for instance, of the Swiss company *Mobilidee,* specialised in selling "mobility plans". Costumers hire the company to design schemes for employees to move in a cheaper and more time-efficient way. In Paris, the consultancy *Chronos* does a similar job for local governments who want

"to be clear: at Vélocité we do not sell stuff like 'ecology' 'sustainable development', or any other ideology. We sell quick mail deliveries. We are perfectly competitive on all criteria of our industry. Rapidity, price, safety, and obviously environmental performance. For us it is importat to know that our costumers work with us because of these reasons and not only for 'green washing'."

Paul Kormann, Vélocité, Lausanne

to address mobility issue at the neighbourhood level. With very different tools, but with the very same spirit, the courier delivery company *Vélocité* brings mail around Switzerland using bikes and cargo bikes along with vans and trains. **These companies choose to conciliate ecological value with a profitable activity: even if ecomobility is frequently part of the values of the company and its staff, the service sold is perfectly competitive on merely market-based criteria.** "Ways too often sustainable development rhymes with high prices. Our job shows that is possible to provide a service with an added value and a high quality, with low prices and competitive standards" says Paul Kormann, of *Vélocité.*

3.5. Communicating Ecomobility

There is yet another range of actors very difficult to locate in any of the sections above. **Their role has directly or indirectly to do with communicating about ecomobility and urban biking; they are artists, museums, magazines, writers, and there is even a showman** (see Box # 6)**.** While promoting sustainable mobility is not necessarily their primary goal, they eventually contribute to a cultural shift toward more sustainable way of

Horsebus, in the Musée des Arts et Metiers, Paris

approaching urban mobility and convey the message that a different world is possible. Throughout *EcomobilEuropE,* they contributed in bringing in a very different perspective: ecomobility is not only about efficiency, social inclusion and ecology, it can be also seen as something that has to do with cultural belonging and creation of something different.

In Paris (and *banlieue*) are located two fascinating museums on the history of bikes and transportation that show where we come from in terms of urban mobility. The *Conservatoire du Vélo* has been built in the old premises of the *Prugnat* bike components manufactory in Moret-sur-Loing. It has a collection of old and new bikes, to show how different innovations (the peddles, the chain, the gears…) have contribute to build up what we ride on today**. In most cases innovation was driven by competitive sport, but also by social innovation such as the paid holidays for factory workers, which triggered the invention of the tandem bike in France**. The *Musée des Arts et Métiers* in central Paris has a section on the history of public and private transport, from the first cars and planes, to the horse-bus, different kinds of velocipede, the metro and one of the most revolutionary mobility related innovation of recent times: the Velib'. Not far from the Museum there is also the *Velocipede café*. Today it has nothing to do with bikes, but I asked and in the very same place there used to be a bike shop, it became a cigar retailers, and now a *brasserie*, but the name remained attached to the first – and most romantic- business.

The first bicycles at the Conservatoire du Vélo, Moret-sur-Loing, France

bike, music & art in Bonn, Germany

In Milan, I met Giancarlo Marini, director of the magazine *Rivista BC*. **His job has to do with telling stories about the bike and its world**, without going into the details of a user guide and without limiting the scope to the bike only: cyclists always think about a lot of other things. Indeed the magazine collects stories of all kinds, from responsible consumption, food & nutrition, renewable energy. The editorial choices are driven by the assumption that cyclists are often active and aware citizens, and their means of transportation is only one of the pillars of a more responsible lifestyle. Indeed, Giancarlo's articles do promote the culture of bicycle developing on issues that cyclists (and might-be-cyclists) find interesting and useful to have a larger perspective on what it only seems a simple commuting vehicle.

"Bikes are dangerous.
Because they make you think."
Giancarlo Marini, BC magazine, Milan

Last but not least, I came across books and songs turning around the bicycle. I could recommend 'The Enlightened Cyclist' (by Bike Snob NYC, 2014), the '*Petit traité de vélosophie*' (by Didier Tronchet, 2000), the poem '*Ode al moto perpetuo*' (by Alessio Lega, 2004) and a long list of songs starting probably from the Queen's 'Bicycle Race' - *...all I wanna do is bicycle bicycle bicycle...* In Bonn, also, I found the artist Kaffe Matthews inviting residents to take one of her bikes for a ride. These were connected to a GPS and a loudspeaker which plays a different sound in each different neighbourhood (sonicbikes.net). As mentioned above, these artworks were not necessarily created with urban ecomobility in mind. By all means, however, they end up being part of a culture of change. They have the same (yet, opposite) impact of James Bond driving the Aston Martin: **they build images and models that shape people decisions, showing that eventually ecomobility is a very cultural matter, beyond the technicalities of urban management.**

4 The solutions

4.1. A simple way to achieve ecomobility

Promoting ecomobility is an extremely complex task, which has to do with the way a city is governed and its infrastructures are built and managed. There is plenty of other factors which are crucial: the residents' commuting culture and day-to-day behaviour, the way citizens make their part

Box # 6. Around the world in 80 days

We all know how Mr. Phileas Fogg managed to travel around the world in 80 days, betting that new means of transportation make it possible to achieve this challenge. At that time, in 1873, steam powered vehicles were about to replace horses. Today we are facing another tipping point in history with the first mass market electric vehicles being available to substitute traditional means of transportation.

New men for new challenges: in stead of Passepartout, in the XXI century we have Mr Frank Manders, who is organizing the 80 Days race. Starting in April 2016, different teams will race between eight of the world's most exciting locations without using a single drop of fossil fuel. People can choose their own routes and means of transport: all land-, water- and air-borne vehicles are allowed as long as it runs on renewable resources and does not contain a combustion engine.

All along history competition has been among the greatest drivers for innovation. And emulating the winning heroes makes people do crazy things, shaping their lifestyle and spreading new habits. The 80 Rays Race is there to bring together the pioneers of eco-mobility and show to the world the future of transportation!

See more: www.80dr.com

'Use the right tool'

in building the city and how they engage into urban politics, how companies make their business and relate to employees… **In other words, all factors that shape the socio-economic, political and cultural characteristics of a city and its built environment also have an impact on how mobility and ecomobility develop**. This is why virtually all actors mentioned above (and possibly many others) have a role in promoting ecomobility and are responsible for carrying out -or not- innovative solutions.

In general, I came to believe that a large part of promoting ecomobility has to do with 'using the right tools'. As incredible as it might sound, if all urbanites used the most suitable tools to reach their destinations (and were actually enabled to do so), urban mobility would have a very different face and the problems mentioned in part 0 would be less dramatic. Indeed, **I trust that if commuting decisions were simply lead by common sense, urban mobility would be very different.** For those who do not trust 'common sense' as a credible solution, the alternative is to think in terms of aggregate decisions: 'how would the city look like if everybody moved the way I move?'. Most of our cities –luckily- are not designed for a situation where all residents make the same decision, and, indeed, in no circumstance such an option is desirable. Nevertheless there are some scenarios which are definitely more problematic than others (e.g. if everybody walked, it would be like to go back in history; if everybody drove, it would be an economic and environmental catastrophe).

Surprising as it might be, most cities do not move according to what I call 'common sense'. This is why a number of public policies and citizen initiatives became necessary to move toward a sustainable approach to urban mobility. Each city is different and requires *ad hoc* solutions,

depending on its physical and socio-economic characteristics and on the vision that its residence have regarding their own mobility: an initiative that is effective in a city, might result less effective (or simply unwelcome) in another. Nevertheless, it is often possible to replicate and adapt good practices. Below I listed a number of different approaches to urban mobility which I happen to have seen along *EcomobilEuropE*. It is not necessarily a complete list of options, but I believe it provides a good overview of what different European cities are doing to promote ecomobility, and maybe inspire replication in other cities.

'Let's share the road'

4.2. Multi-stakeholder engagement for the best solutions

A crucial component of a city's effort toward sustainable mobility concerns the active engagement of all actors into the policy process. This is true for different reasons. Incorporating different perspectives is a good way to improve the quality of the policy (e.g. the opinion of cyclists on the design of a bike lane is as important as the opinion of engineers). Allowing different voices to contribute to the design of a policy,

Box # 7. Civitas

Civitas is an initiative launched by the European Union in 2002 to redefine transport measures and policies in order to create cleaner, better transport in cities. More specifically, *Civitas* has helped introduce numerous innovations and measures that have already made transport more eco-friendly in over 60 European metropolitan areas.

Thanks to an investment of well over EUR 200 million, the project has guided cities to introduce urban mobility improvements such as a public transport ticketing system in Tallinn, Estonia, a 100% clean bus fleet in Toulouse, France, waterborne goods transport in Bremen, Germany and a new traffic control system in Bologna, Italy.

Over the last ten years *Civitas* has tested over 800 measures and urban transport solutions, supported by the intensive exchange of good practices in the field. The project empowered citizens to convince politicians on adopting these innovations, upgrading the quality and sustainability of urban transport for numerous European cities.

The experiences and the good practices recorded through *EcomobilEuropE* will be presented at the 12th edition of the annual *Civitas* Forum Conference, between September 23rd and 26th, 2014, in Casablanca, Morocco.

moreover, will contribute to the legitimacy of the policy itself, and consequently to a greater incentive for citizens to do their part. Most of all, however, **the engagement of different actors has to do with the nature itself of ecomobility**. We have seen above how ecomobility has to do with the freedom of people to choose. This is true for the individual choice of the means of transport, but it also true for the vision of the city to be. Indeed, an ecomobility approach is an approach that incorporate the considerations of all citizens and groups in society.

In many cities I visited, the municipality told me that the starting point of any intervention is the consultation with the residents. In Bonn, for instance, **the 2012 City Traffic Plan was long discussed with stakeholders** and voted by the city council before implementation; bike policies, moreover, are now designed based on a **survey that the city regularly conducts among cyclists** (*Fahrrad Klima*). Freiburg holds every four months a **mobility round table** to allow for a dialogue between the city and the civil society. In Milan, on the same day of the last municipal elections, the city voted for different **referendums**, one of which on mobility, giving a very concrete mandate to the new mayor. A different approach which I heard of in Belgium is the web application '**fix my street**', an online platform where citizens can submit complaints and suggestions for the city to take action in their street. It had different

outcomes throughout Europe, depending on the kind of dialogue that is established, but the concept is definitely valuable. A more advanced one is the Eindhoven '**bike print**', a GPS based application for a group of cyclists, who volunteered to use it to transmit data to the municipality and help for better planning.

Probably the most unique example of engaging the residents in envisioning the city they want is a recent project of *Municipio 8*, in Genoa. The president of the *municipio* (sub-city), Alessandro Morgante, asked the city's **architecture students to imagine how Genoa should look like in the future** and submit their project for a public exhibition. The fact that all of them (all!) have included in their project components of a different and more sustainable mobility, indeed, gave the municipality the motivation and the legitimacy to go in that direction.

Cities can also look beyond their borders and look at the examples of other cities that have tried to address similar challenges. As mentioned above, there is a number of tools and resources at the international level that help cities to do so. Working with an international perspective has the advantage of boosting the legitimacy of an initiative (e.g. 'we are part of a bigger movement'), as well as of providing knowledge of what has worked and what has not. The *Civitas* initiative, for instance, was launched by the EU to help cities in promoting sustainable mobility (see Box # 7). The city network Euro

Cities, moreover, helps members to design their own Sustainable Mobility Plan (SUMP) and develop a framework of action. The Ecomobility Alliance offers to local governments the 'SHIFT' tool, which help to measure the performance of the urban mobility framework and to identify areas that shall be a priority of intervention.

4.3. Policies for urban ecomobility

i) Adopting ambitious city goals.

A strategy that numerous cities use to promote ecomobility is to officially adopt ambitious city goals. More than consisting of a concrete policy, setting city goals can provide the framework of action and the political momentum, and it is used as a reference for other policies and for other initiatives. **Setting a goal is a way for the local government to take a commitment in front of the citizens, and for the whole city in front of the world**. Provided it is not only a void slogan, a city goal is the prove of existing political will, which is in fact a necessary condition for things to move forward. Examples are numerous: the city of Vicenza, Italy, committed to bring from 30 to 50 per cent the daily share of sustainable

> **Box # 8. Regional resource centre for Ecomobility**
>
> Lille's bike users association ADAV (*Association Droit au Vélo)*, in partnership with the national Agency for Environment and Energy Management (ADEME) and the *Nord–Pas de Calais* Regional Council, is managing the Regional Resource Centre for Ecomobility (*Centre Ressource Régional en écomobilité*).
>
> The main goal of the centre is to provide expertise and consultancy to associations and local governments. In particular, the area of intervention goes along two lines: develop and manage a regional network on the theme of ecomobility in schools, and work together with stakeholders on the mobility pillar of the Local Climate Change Plans.
>
> Indeed, the centre represent an important resource for the whole region, centralising useful information, providing specific expertise, and coordinating action.
>
> More info: www.ecomobilite.org

Made for bikes, Vienne, France

journeys (i.e. public transport, bikes, and walk). The city of Bonn set the target of becoming the region's bicycle capital by 2020. Freiburg aims to be a 'city of short distances', where people shall be able to find in their neighbourhood everything what fits into a normal shopping bag. The Covenant of Mayors is a commitment that 5450 local governments (as of August 20th, 2014) have signed to reduce of 20 per cent their GHG emissions by 2020: promoting sustainable mobility is often part of the strategy to reach the goal.

ii) Achieving a balanced modal split

To achieve these goals, cities can adopt an whole range of policies, which are normally based on the principle of a **more fair balance between street users**. A typical example is the 30 km/h speed limitation, which allows different users to be aware of each other for a general increment in everybody's safety; or the *'school street'* regulation, which introduces traffic limitation at the beginning and the end of school days and encourages parents and students to walk to school. Given the current bias of most cities' modal split, many of the other policies aim to ensure people mobility while limiting the use of the private combustion-engine car.

Box # 9. Car sharing and bike sharing

Car-sharing and bike-sharing are model of quick and easy rental where people can rent vehicles for short periods of time, often by the hour. In most cases, the user can pick a bike or a car in any of the available stations, and return it in another, as she sees fit. Smart technologies also allow to reduce to the minimum time spent in looking for available vehicles or available docking stations.

These models are being increasingly adopted in the cities I have visited. Their main characteristic is that they provide an alternative for those who do not own a private vehicle (or don't want to). While sharing systems do not necessarily lead to change of the modal split, the benefits for individuals and for the city remain important. Sharing schemes reduce the amount of cars and bikes parked on the streets and it is a way to make a more efficient use of resources. Most private cars, indeed, remain idle most of the time. It has been calculated that giving up 5 out of 6 cars in our cities would not require changing our mobility habits.

These models represent also a huge social innovation: they imply, in fact, a shift away from private property of transportation utilities. In a society that for many decades has lived the myth of the private car, these sharing schemes have a revolutionary impact.

categories, namely 'pull policies' and 'push policies' (i.e. 'pull' people out of the car, and 'push' them toward another mobility option). Often the distinction is very blurred and the same policy provides at the same time pull and push signals. In all cases policies of these two kinds are complementary and cannot achieve the goal if taken in isolation.

iii) Pull policies

This group relates to those policies **which inhibit or provide deterrents to the use of the private car**. In some cases they consist of market signals that make it more expensive to use, to park or to own a car; in other cases they are regulations to limit or exclude cars from certain areas to the city. Examples include the 'congestion charge' which charges car users for access to the city centre (e.g. *Ecopass/area C* in Milan); high parking fees -i.e. to provide the right signal, parking fees should be higher than the bus ticket; or the vehicle ownership tax.

Other examples are the pedestrian zones or the limited access zones (indeed, these are examples of policies which obtain both the pull and the push effect). Few weeks before the beginning of *EcomobilEuropE*, Vicenza has enacted the new perimeter of the pedestrian
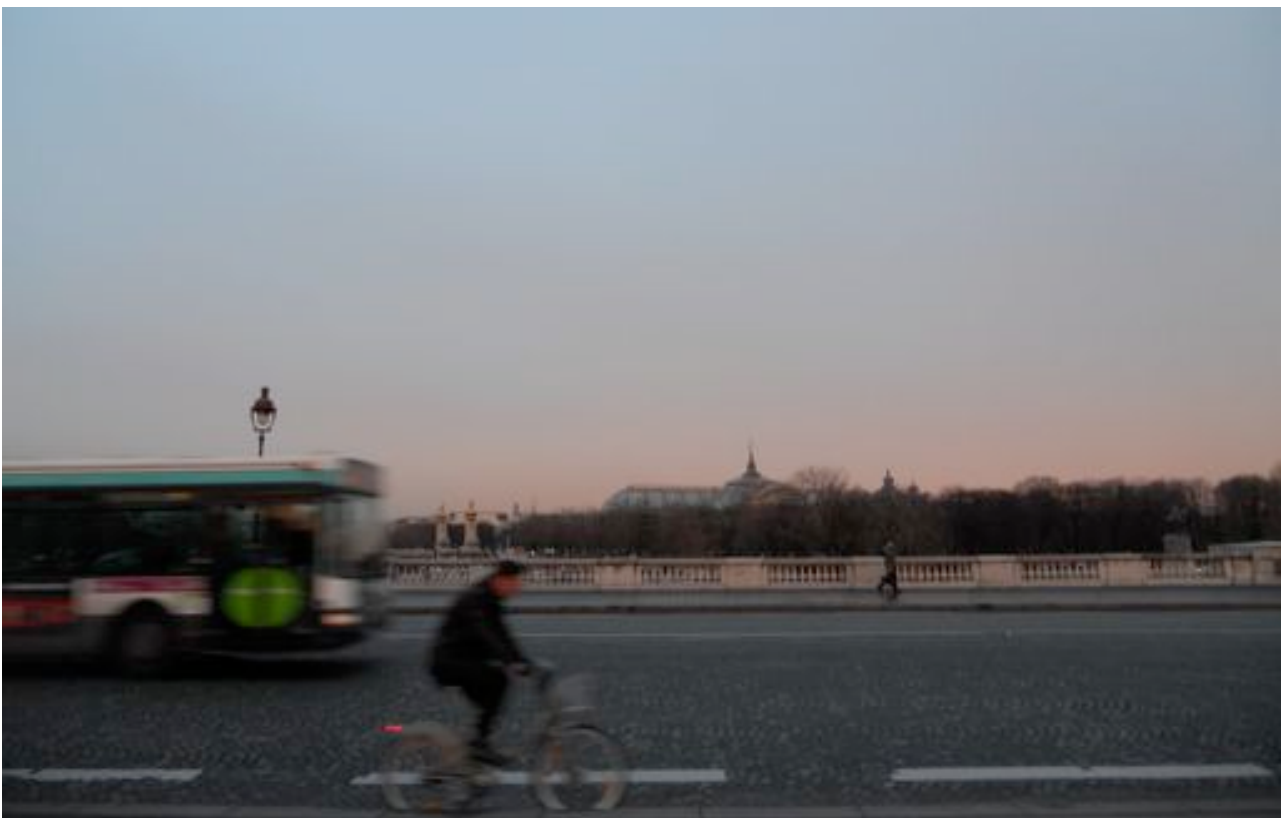
Buses & bikes onPont de la Concorde, Paris, France

zone with a very specific goal: "rather than liming access to the city centre, our goal was to prevent people from driving through it" said Dalla Pozza, (Marco Antonio Dalla Pozza, City of Vicenza, *assessore*, interviewed on April 29th Vicenza). Other regulations concern the urban zoning, e.g. by limiting the availably parking space per built-up unit, or limiting parking lots in general.

iv) Push policies

Strategies that merely aim at reducing the use of the private car risk to be very unpopular and to end up reducing the mobility of people, as opposed to changing it. If using the car becomes too expensive or is forbidden, people need alternatives to keep enjoying access to all areas of the city: 'push' policies aim precisely to provide those alternatives. **The most comprehensive solution is the promotion of mixed modality,** defined as the possibility of easily use different means of transport in different occasions (multimodality) or even along the same journey (intermodality). Examples include the simple creation of an integrated ticket for all public transport; or the *park & ride* schemes whereby public garages are built outside the city in the proximity of a public transport station and a ticket is included in the parking fee. A great benefit, indeed, is that it provide solutions adapted to the needs of the users, the weather conditions and the topography of the city.

Other possibilities target directly specific means of transport. In Geneva, for instance, the Green party is trying to promote **a law to officially include in the master plan the concept of 'soft mobility'.** In Vicenza the municipality has given **to electric cars free parking lots and power charge** for two years. Freiburg is developing new tram lines so as to ensure that at least 70% of the residents lives within 500 metres from a stop; the trams moreover are planned to be barrier free, suitable for children, old people and disabled people. In the whole Switzerland –and beyond- it is increasingly common **the *Pédibus* system** (www.pedibus.ch) whereby parents can coordinate to walk children to school along routes that have mutually convened. To participate, a parent commits to take all children to school only once or twice

a week, while in the other days she/he can live the child at the 'stop' to be picked up by another parent. Virtually all policies to promote the use of the bike, described in part 4.4 below, can be grouped under this group.

v) Challenges and solutions

As often happens, the main challenge to implementation is the political feasibility. **Policies related to mobility might imply a change, sometimes drastic, of the habits of people and can be seen as a useless imposition.** While 'push' policies are becoming popular among voters and policy makers, 'pull' policies are often difficult to put in place. "In Geneva, we built bike infrastructures everywhere where it was possible. Today, to further expand the network we would have to reduce the space dedicated to cars and this is politically very challenging", told me Lisa Mazzone (Canton of Geneva, councillor , interviewed on June 26th, Geneva). Shop owners and restaurants are typically on the front line complaining about any restriction whatsoever to the access of cars to their business.

As mentioned above, **the solutions to these challenges come by negotiating with all stakeholders**, and often mean to adopt a mix of different strategies. In all cases it is crucial for the city government to invest in explaining to the residents the long term benefits that these policies have. Simone Ariane Pflaum of the City of Freiburg, told me that back in the 80s closing a city centre to cars was very rare, and in Freiburg the process was extremely difficult to carry on. Today, on the contrary, it seems absolutely normal to have a car-free centre and citizens (as well as shop owners and restaurants) can fully enjoy the benefits it leads to. Changing the mobility patterns in the rest of the city might be a hard process too, but it will most definitely bring similar benefits to all residents.

vi) Against a stigmatisation of cars

In these terms, the discussion seems to hide a strong and indiscriminate bias against private cars. In fact, we care to highlight the private car is not the origin of all problems. Nor a planet without car is a desirable option

New and old cars

at all. In the last century, though, many European cities have been reshaped around the automobile and urbanites grew believing in the myth of the efficiency of the private car. While the car is an excellent and extremely useful invention, the unrivalled priority it has been given to, in terms of public policies, infrastructure development, technological innovation and capital investment, has lead to unsustainable outcomes, making necessary a drastic change in direction. It might sound like a paradox, but changing and improving urban mobility (e.g. also by limiting the use of the car) is probably the only viable way to allow people to keep enjoying the benefits that cars have in certain situations (e.g. for ambulances, police, but also for elderly people and disabled people, to move large desks…).

4.4. Promoting and developing urban cyclability

In the sections above, I said that promoting urban cyclability is one of the options to reach ecomobility. I also acknowledged that, given that I was travelling by bike, the large majority of the stakeholders I met were related to biking more than to any other ecomobility solutions. This is why I got to see a great number initiatives and policies related to cyclability, and I had some deeper insights on this theme. **Cycling is an efficient way of using expensive and scarce space in urban areas, it is healthy, clean and energy efficient**. Almost half of all city car trips are over distances shorter than 5 kilometres, meaning that there is an important potential for cycling. I present below a list of different initiatives that I came across, classifying them based on who takes the lead of the initiative (i.e. top-down or bottom-up) and on whether

it is about infrastructural development or behavioural change. Once again, the classification has a pure analytical value, given that most initiatives have different components and could fall at the same time in different sectors.

i) Top-down / Infrastructure development

This group of policies is probably the most visible. It include all infrastructures that are developed by the public institutions for cyclists, typically bike paths, lanes and parking lots. The theme, obviously, can be approached in different ways. The minimum that a city can do is to ensure that **every new mobility infrastructure is designed in a way that considers cyclists as legitimate users of the street**. In cities with a short history of promoting cyclability, the efforts are focused on creating a network of bike ways across the city, linking the few bits which already exist and ensuring **cyclists' safety**. In other cities, it is also about **cyclists' comfort**: in Eindhoven, for instance, a check-list was established to ensure that bike ways are coherent, direct, comfortable, safe and attractive. The city has also built one of the most incredible bike lane bit I have seen in Europe: an elevated round-about for bikes only (in the picture below).

Another examples of infrastructure development are the so called **bicycle high ways** (e.g. in Freiburg along the river Dreisam): these are bike paths for medium and long distances, well segregated from the traffic and designed in a way to avoid cross roads and traffic lights, and to allow users to get on and off without hindering the

The Hovenring, Eindhoven, The Nerherlands

Bike racks and art in Belgium

circulation. I discovered through my experience, moreover, that bike ways and highways which also have **signs to indicate directions** are much better and can provide real help both to tourists and to new comers (Paris, for instance, is improving a lot on this). They also represent a way for citizens to rediscover their city and fully use the infrastructures that are being developed.

An other important intervention concerns the creation of **adequate parking spaces for bikes**. The purpose of these spaces is to ensure that parked bikes do not disturb citizens (i.e. the wild parking phenomenon is true for bikes as well as for cars), but also to **protect bikes from weather, vandalism and theft**. Useful bike racks are those that allow to easily lock both the wheels and the frame of the bike. In Belgium I have also seen decorative bike racks, not only useful to park

bikes, but also to **make the city more beautiful**. Some cities have secured and guarded bike parks inside buildings or underground, typically located in proximity of train or bus stations. The best ones also offer bike repair services, gadget shops or even a **baby stroller service**: in Leuven, parents who come to the city centre by bike can easily rent a baby stroller to go shopping. The initiative has been adopted to respond to a specific demand by citizens and indeed contributes to reduce car trips from the periphery.

ii) Top-down / Behavioural change

This group includes **all initiatives that public institutions undertake to promote the use of the bike** through regulations and laws (the 30 km/h speed zone, mentioned above, is an example of a regulation that lead to greater safety for bikes, among other things), economic incentives, such as subsidies for purchasing bikes, and awareness raising campaigns on the benefits of the bicycle for individuals and communities. These initiative are sometimes promoted directly by the public institutions, in other cases they are carried out in partnership with other stakeholders sharing the tasks, the responsibilities and resources to invest. The French transportation minister, for instance, has recently launched the Bicycle National Plan (*Plan national vélo*) where he proposed different incentives to bike commuters: the most interesting is to

urban cyclability matrix	infrastructure development	behavioural change
top-down	Bike lanes Bike highway Contraflow bike lanes Bike Sharing Bike racks Secured bike parking Bike registry Direction signs for bikes	Traffic code Awareness raising campaigns Tax breaks and subsidies Bike streets Transport allowances
	i.	ii.
	iii.	iv.
bottom-up	Bike coops bike-friendly equipment in the work place mapping and cartography	Awareness raising campaigns Bike vs. car tests *EcomobilEuropE* Bike schools and coaching

give transportation allowances to those who bike to work (0.21 € per km), which would provide to cyclists similar benefits to the ones that today car users have.

Another initiative I came across, which is somewhere between the development of infrastructures and the behavioural change is the design of a *'Fahhrad Strasse'* (bicycle street), which I have seen in Germany . This is a way to label certain streets where cyclists are the priority user: "While in most of the city's streets cars are the norm and bikes are the exception, in this case it is the opposite. It is a street for bikes that other users can use if

"The ultimate goal of the goal of a bike coop is to allow a community of like minded people to get together and get passionate about cycling, as this is the real engine to promote urban ecomobility"

Andrea Fisico, Cicletica, Vicenza

they slow down and pay attention" says Regina Jansen, of the City of Bonn. It is like a pedestrian zone, but for cyclists tather than for pedestrians. In practice, the main difference from a normal street is the possibility for cyclists to ride in both senses, and the right to bike side by side. At the same time, though, the initiative has an important pedagogic dimension of protection and respect of the weak users of the street. It seems that in Bonn drivers were complaining at first, concerned as they were to not be able

to overtake slow cyclists. In the long run, though, such policies result to be the most sustainable, as they encourage different users to share the space in a responsible way, without the need of narrowing down car lanes, bike lanes or side walks.

iii) Bottom-up / Infrastructure development

In part 0 above, we said that public institutions are not the only one stakeholder active in promoting ecomobility. The same is true for cyclability, where initiatives are taken at all levels. The establishment of **bike coops** we described above can be considered an infrastructure that the residents develop for themselves. In this group, also fall all initiative to make maps and road signs available to users: in Munster, Germany, the local bike users association has designed and equipped various **peri-urban itineraries for**


The bike-coop MonteloVélo, Montélimar, France

cyclo-tourism; with similar goals, but

Box # 10. An interactive compass for urban cyclists

Bikedistrict is a online map designed for Milan urban cyclists. As many other online maps, it allow users to select departure and destination and find their itinerary. The difference is that Bikedistrict provides different options, which take in consideration that the user is a cyclist. The first option is the shortest way for those who are in a hurry, the second is the most bike-friendly (the minimum possible of cobblestones, tramway lines, traffic lights…), the third is the safest, for those who prefer to avoid the car traffic. Bikedistrict.com is not only a great example of the potential of smart infrastructures for a better urban life quality; because of the feedback of the users, it can also be a valid tool for policy makers to identify people needs and design adequate infrastructures.

See more: www.bikedistrict.org or
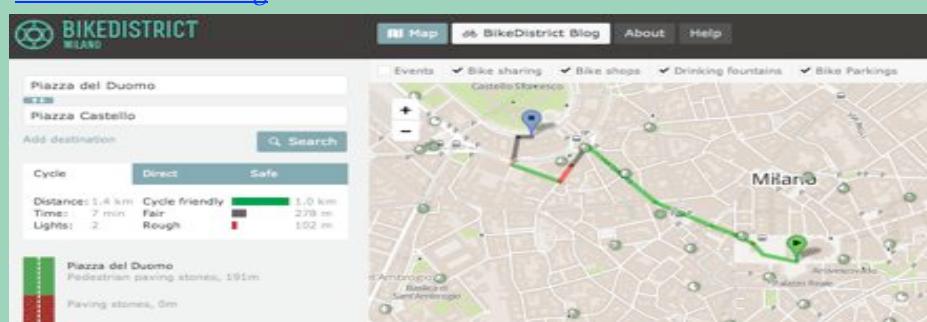
different tools, the OpenStreetMap project allows users to share online geo-localised data and draw an interactive map of the whole world (see also the work of *Bikedistrict* Box # 10). In Montélimar, the bike users association has even created some **bike lanes using orange traffic cones**, to prove that there is space to actually build or paint an official one without hindering the traffic.

Employers also play a crucial role in promoting bicycle habits, by **equipping the work places with some bike-friendly services**. In many cases companies already provide benefits and allowances to motorised transport: in a similar fashion they could do something for bike commuters. Options go from simply giving parking lots, to granting 'service bikes' or making showers and changing rooms available in the work place.

In Milan, for instance, the city has encouraged building owners to have in each building a bicycle parking. It is not rare, moreover, that a private participates in the development of the bike ways network in exchange, for instance, of more convenient building permits.

iv) Bottom-up / Behavioural change

Last but not least, many stakeholders are also active in raising the awareness of their fellow citizens about bike related issues. Through the whole *EcomobilEuropE* journey I carried on my bike the tag '*La bicicletta non inquina*' (i.e. the bicycle does not pollute) given to me by Vicenza's bike users association *Tuttinbici*. The tag is part of the **awareness raising campaign** the association

Box # 11. Bicycles as a means of social promotion

There are numerous ways to promote urban cyclability and we listed here some of them. As part of *EcomobilEuropE*, though, I also came across different initiatives that use the bike as a mean of social promotion. This happens, for instance, in Valence, where the local bike users associations REVV is responsible for a project targeting socially marginalised women. As part of the project, the beneficiaries can learn to bike in the traffic, and can buy bikes at advantageous conditions. Bernard Bedouet, president of REVV, told me how many women become more independent through the project, as they have a new way to move. "At the same time – he said- by learning how to ride a bike they also gain self-esteem, and often more respect from their teenaged children who see how 'cool' their mums can be". (Bernard Bedouet, REVV Valence, president, interviewed on May 20th, Valence).

Similarly in Pforzheim, as part of their volunteer work in the *Portus* Association, Alex and Maria Clauss run a project to teach children how to repair bikes. "Often the children who come to *Portus* have hard time in school, or in their family. Learning the mechanics of bicycles becomes a wonderful way to empower them, boosting their self confidence and developing the capacity to work with their hands" Says Alex (Alex Clauss, Portus Bikes, co-founder, interviewed on June 20th, Pforzheim). When he's not at *Portus* workshop, Alex is an engineer and one of the few dozens of people in Germany who can build bikes directly from the raw materials.

Bike park in Vicenza, co-managed by Caritas, Cicletica, Cooperativa M25 and the City of Vicenza to provide bike services and to help socially marginalised individuals.

'The bike does not pollute'

is carrying on concerning the environmental benefits of bikes. Similar initiatives are carried out by other associations in cinemas or in schools, and they all have the goal to make people acquainted with using bikes. The *Défi Vélo* initiative, for instance, is carried out by the association *Pro-Vélo* in different locations of Switzerland. It consists in **bringing bikes to schools** and organise different activities for young students to discover biking as a sport, but also as a way to move in the city.

An other initiative that focuses particularly on the benefit of bicycles in terms of commuting time is carried out by *Montélovélo*, in Montelimar. Regularly, the association **organises tests to measure the quickest mean of transport:** car, scooter, walk, bus, bicycle. Even on Sunday morning, where there is no traffic on the streets, the bike scores surprisingly good (often, second, just after the scooter). An even better scenario would come out if the tests were done during peak hours to reach destinations where no car parking is available. Finally, I am proud to record *EcombilEuropE* among the initiatives listed in this group, for the **inspiration I gave to cyclists and might-be cyclists,** by sharing stories and biking myself for so many kilometres.

Other projects are related to actually **bringing people to learn how to bike in the city**. Surprising as it might sound, many adults have lost the capacity to bike in the traffic and actually need to go back to the basic. *Urban Bike Montpellier* (France), for instance, organises regular bike tours in the city for those who want to get confident in riding in the traffic and discover the bike

infrastructures their city offers. Similarly, the Belgian *Pro-Vélo* organises **bike couching sessions**: for two weeks of the years a group of experienced urban cyclists will accompany wanna-be cyclists through the streets of Brussels. Every day the 'tutor' will pick up the new cyclist to bike together to the office. In two weeks people have the time to learn how to move in the traffic, and at the same time they become aware of the fact that it is actually possible to bike to the office regularly. Most of them, actually, continue doing so.

Conclusion

The *EcomobilEuropE* journey finished on July 3rd, 2014, in Vicenza, Italy. After more than 3000 km it is very hard to sum up on the lessons learned and the conclusions. The cities I have seen offer such a differentiated panorama, impossible to reproduce in few pages. There are, however, some commonalities to the current status of mobility and ecomobility which I tried to present in this report, and some messages I collected on the way.

There is an increasing awareness regarding the challenges that European cities are facing, linked to the economic, environmental and social impacts of our way of living. While the situation is extremely differentiated, the problems that urban residents are concerned about (e.g. from the costs of congested roads to climate change) and the priorities they identify (e.g. better air quality, health, …) are fairly similar throughout the continent**. The current urban mobility mode, in particular, is recognised as a key driver of many of those problems**: changing it represents an important opportunity to improve the urban quality of life.

Indeed the way cities move is not engraved in stones. A city's mobility patterns do not depend on the local topography or weather. While this is often used as a justification to maintain a certain status quo, factors such as steep hills and rain explain only very marginally why residents prefer one way of moving to another. **The characteristics of urban mobility, on the contrary, are a consequence of a history of**

political choices, driven by the local culture, economy, and demography. As such, they can be shaped by inspiring leaders, a committed business sectors and civil society, and a population of citizens with the capacity of envisioning a different future.

A whole range of different actors works to promote sustainable mobility: local governments, bicycle associations and movements, international organisations and city networks, business and all kinds of artist. Achieving sustainable mobility has to do with their capacity to aggregate and channel the political demand and with how they mediate for the best solutions. Indeed, I came across different initiatives that have been adopted in Europe. In general, the **objective is to promote an adequate mix of different means of transport**, changing according to the occasions and the personal needs. Nevertheless, because of the car-oriented urban development that is common to the recent history of many cities, initiatives for ecomobility often consist of deterrents to use the private car, coupled with incentives to use other means of transportation.

What all stakeholders I met agree on is that sustainable mobility is about the time horizon of sustainable mobility. Similarly to the concept of sustainable development, promoting sustainable mobility means to ensure achievement of the current mobility needs, while granting to future generations the same possibilities. At the same time, though, **a new approach is required to achieve the current mobility needs, while ensuring a good quality of life to the present generation**. One necessary characteristic that any approach to urban mobility should safeguard is **the freedom to choose the most suitable option for moving as well as the vision for the future city to be**, while respecting everyone else's freedom to choose too. This freedom is strictly linked to the importance of building socially inclusive cities, without forgetting the weakest segments of society.

Indeed, Ecomobility is one way to approach urban mobility that goes in this direction. As a comprehensive framework that highlights the importance of public and non-motorized transport and promotes an integrated use of all modes in a city, ecomobility implies creating affordable, socially inclusive, and environmentally-friendly commuting options, including and integrating walking, cycling, wheeling, public transport. It means maintaining our mobility lifestyle, while decreasing our environmental footprint. Indeed, it is "a different way to live our environment, more true and more thrilling, carrying along of sociability and proximity"(Alessandro Morgante – City of Genoa, president of Sub-city 8, Genoa).

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The author

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