Workshop

Sustainable Mobility and Rubberized Asphalt in Cycling Lanes and Urban Roads

25 March 2025 h.10.30 – 16.30
LE LOUISE Hotel Brussels

Description & Agenda

The mobility has been evolving rapidly reflecting the changes in the society and adapting to different needs and contexts, becoming more sustainable in terms of social and environmental impacts. Components for evaluating sustainability include not only the particular vehicles or the source of energy but also the infrastructure used. Urban roads and transport infrastructures are increasingly contested between different mobility modes and users. Traffic, costs and pollution are critical elements which are stimulating the adoption of more sustainable solutions both in the vehicles and infrastructures.

Today, 55% of the world's population lives in urban areas, a proportion that is expected to increase to 68% by 2050, while in the EU this value has already been attained (67,5% in 2018). This trend is not only growing but also accelerating.

In Europe, **Roads in urban areas** account for 20.1% of the total road network by length, which are travelled by the above mentioned 67,5% of the population. This heavy usage leads to significant wear and tear on asphalt, necessitating frequent and costly maintenance.s

Total EU **Rail Network** account for over 200.000 km thanks to it in 2022, 7.3 billion passengers made national journeys

in the EU, travelling a total of 372 billion kilometres. In addition, passengers were carried 21 billion kilometres on international journeys. Relative to population size, this was an average of 833 kilometres per inhabitant on national journeys and 47 kilometres per inhabitant on international journeys.

Passenger land modal share use is for 86,1% Passenger cars, 7,1% Bus, 5,5% rails, 1,3% Tram & Metro. The use of bicycles and e-bikes are increasing in cities and despite the phenomenon is not detected and accounted yet properly they are gaining space in all the cities, also as modal solution purpose.

The bicycle is a low-cost means of transport that thanks also to low risk of transmission of infectious disease started to be encouraged by governments during the COVID-19 crisis, and then continued to be incentivized for health benefits in a wider sense, not to mention the improved quality of urban environment and mobility.

This lead to the adoption by the European Commission, of a European Declaration on Cycling, which recognises cycling as a **sustainable, accessible and inclusive, affordable and healthy means of transport**, with strong added value for the EU economy. It **lists principles to boost cycling that will guide future action** in the EU. Clear commitments, such as safe and coherent cycling networks in cities, better links with public transport, secure parking spaces, the deployment of charging points for e-bikes and bike highways connecting cities with rural areas, are necessary to improve the quality, quantity, continuity and attractiveness of cycling infrastructure across all Member States.

Cycling infrastructures has been more and more integrated and better organized, valorizing existing network and expanding through new investments. Few example and figures will give the idea.

Eurovelo network comprises a total of 90,000 km worth of cycling itineraries and can be used by bike tourists as well as locals for their daily journeys.

In the Netherlands there are **over 37,000km** of bicycle paths.

Just in **Brussels**, in 2020 authorities decided to build 38km of pop-up bike lanes to release the pressure on public transport and provide safe distancing while commuting. The city saw a direct growth of 57% in cycled trips between 2020 and 2022

Italy's Recovery and resilience Plan provides for the construction of at least 565 km of cycling lanes in metropolitan areas and at least 746 km of tourist cycle paths.

Cycle paths shall facilitate first-mile and last-mile commuting: connecting locations in metropolitan areas or universities to nearby railway or metro nodes. For this investment, the RRP provides EUR 467 million at the national level.

With EUR 211 million, the Recovery and Resilience Facility supports the construction of 40 km of new bike lanes across **Flanders** and the refurbishment of another 365 km. This investment promotes road safety and reduces congestion and pollution.

A soft revolution has been happening in **Paris.** Since 2018, more and more Parisians are opting for cycling as an everyday mode of transport. Since 2018, annual cycling traffic in the city has surged by 166%, and the curve is still growing! This boom was widely supported by the 1,000km of bike lanes and a budget of €19 per inhabitant spent by the city.

These are just few examples of a strong ongoing trend supported by the EU Commmission and National Governments throughout Europe. In such context, the use of recycled materials, such as recycled rubber, to construct or maintain Roads, Rails and Cycling Lanes, is recommended to reduce the amount of waste and polluting emissions and to support CO2 reduction best practices in mobility.

Either in **roads, rails or cycling lanes Recycled Tyre Materials (RTMs)** may contribute to realize more durable and performing surfaces, valorizing high quality recycled materials, and reducing the depletion of natural resources.

This is what they have in common few projects that are cooperating to make to develop and promote more sustainable infrastructures and mobility solutions. A key role will be plaid by the use of innovative and more sustainable solutions developed thanks also to RTMs.

RE-PLAN CITY LIFE is the project aiming to raise awareness among Technicians of P.A., stakeholders, policymakers on the use of Recycled Tyre Materials (RTMs) in transport infrastructure building, urban areas and Sport Infrastructures. The RE-PLAN CITY LIFE project promote environmentally friendly behaviors in urban communities, stimulate the adoption of Circular Economy best practices, and create further opportunities of cooperation and implementation through new projects.

The LIFE SILENT project aims to develop sustainable and eco-friendly solutions for mitigating noise emissions from road and rail traffic in complex urban environments**.** Throughout the project**,** low-noise pavements made of recycled, non-toxic materials, such as cardboard and end-of-life tyres, will be developed and tested. The LIFE SILENT project addresses the issue of low-noise pavements with crumb rubber in an innovative way, by introducing functionalized cellulose fibers into the asphalt mix to increase their fatigue resistance and, consequently, their lifespan. This aspect is of great importance for reducing costs and promoting their wider adoption.

The new **SMILE CITY Project,** started on 1st January 2025 will engage both citizens and industrial leaders in the green transition towards climate-neutral solutions for Circular Cities developing green mobility solutions with intensive use of recycled materials, in Cycling Lanes and Infrastructures.

The projects are focused to expand the use of Recycled Tyre Materials to improve the performance and the sustainability of transport infrastructure, and are cooperating to create more opportunities of dissemination and networking.

Scope of the Workshop is to:

- **Discuss the main issues and how they can be addressed**
- **Implement cooperation among the projects**
- **Design and set up the Urban Living Lab (ULL) for Pilots Design and Planning of SMILE CITY**
- **Present new projects opportunities**

AGENDA

- Introduction
- Brief presentation of the Projects (RE-PLAN CITY LIFE, LIFE SILENT, SMILE CITY)
- Mobility and cycling policies
- Urban / Rural context
- Health and environmental issues
- Rubberized Asphalt for Roads and Cycling Lanes
- SMILE CITY : Setting up a Urban Living Lab (ULL) for Pilots Design and Planning
- PAVET Project – Promoting AI for Viable Environment and Vocational Education and Training **(New Project)**
- RECAP – Review of Experiments on Crumbs-rubber for Asphalt Pavements **(New Project)**

The workshop will also illustrate the tools put in place by the projects to stimulate a stronger engagement from the Public Authorities to adopt best practices and Green Procurement.

The event is free and open to anyone interested and offers a unique opportunity of discussion and interaction with relevant Stakeholders.

The full information about the event is available on the website: https://www.re-plancitylife.eu/events

You may register via links: https://forms.gle/QFqNcDmXfFL2VgbG6

For more information contact info@re-plancitylife.eu or info@etra-eu.org

See you in Brussels !

ETRA Team