



CITIES AND REGIONS NETWORKING
FOR INNOVATIVE TRANSPORT SOLUTIONS



Energy systems for smart mobility

Date: Thursday, June 22, 2017

Venue : Polis office, rue du Trône, 98, 1050 Brussels

PROGRAMME

Context

Several important EU policies and activities aim to decarbonise transport in the years to come. Within the Energy Union, further actions will be taken to create the right market conditions for an **increased deployment of alternative fuels and to further promote procurement of clean vehicles.**

Moreover, Member States, as part of the Alternative Fuels Infrastructure Directive implementation, are now developing National Policy frameworks, to ensure that the necessary refueling infrastructure is put in place. In addition, the White Paper for transport aims to halve the use of conventionally-fuelled cars in urban transport by 2030 and to phase them out in cities by 2050.

Achieving these goals will require that innovative mobility solutions are developed in conjunction with **new energy storage concepts and technologies.** A new cooperation model will also be key to achieve transport decarbonisation at the local level. Different EU programmes and projects already recognize this need (e.g. “smart cities and communities” programme).

Which specific solutions have to be designed today to anticipate the future developments of decarbonised transport? What kind of concrete projects are currently set in the field of clean energies for transport?

In such a perspective, Polis and ERRIN organise a seminar on “Energy systems for smart mobility” to discuss how to better anticipate the future challenges. The seminar is organised along with interactive discussions between the panelists and the audience with the participation of the European Commission.

Moderation

Françoise Guaspere, Chairwoman of the Transport Working Group, ERRIN

Karen Vancluysen, Secretary General, Polis network

Welcome coffee 9:30 – 10:00

Keynotes speech 10:00 – 10:10

Françoise Guaspare, Chairwoman of the Transport Working Group, ERRIN

Karen Vancluysen, Secretary General, Polis network

Project showcase

Followed by reactions of the European Commission

Axel Volkery, Sustainable & Intelligent Transport (B4)

DG Mobility and Transport, European Commission

‘Masterplan fast-charging Infrastructure in Stuttgart’ 10:10 – 10:30

Markus Siehr, Project leader

The Stuttgart Region aims to lead the way in the installation and expansion of a fast-charging infrastructure – being as it is, in a leading position as an electric mobility region in Germany. The “Masterplan fast-charging Infrastructure Stuttgart” project is developing a model for site-specific evaluation of investment decisions, to ensure the appropriate installation of a fast-charging infrastructure.

This Masterplan will support investors in assessing the economic viability of fast-charging stations. Important factors, such as traffic supply and demand, as well as the existing grid infrastructure will be taken into consideration.

A good spatial distribution of fast-charging infrastructure forms the foundation of the Masterplan. The final condition should ensure accessibility to fast-charging sites for each citizen in the region by spending the same amount of effort.

Q&A

Île-de-France Region: smart use of energy 10:30 – 10:50

Bruno Flinois, CEO of Clem'

What impacts to expect from eco-mobility projects on the energy use of a territory?

New mobility solutions are growing fast. In the Île-de-France Region, 400,000 electric vehicles will be running by 2020. How to organise a smart energy management that ensure the sustainability of the projects?

Thanks to smart innovative charging stations, the project will present how to avoid any electric shortage off peak hours. It will also focus on the use of renewable energies to relieve the electric network. For example, The Flovesol project aims to study the technical and

economic feasibility and the environmental impact of a fleet of electric vehicles recharged with solar panels integrated into positive energy buildings.

Q&A

SEEV4-City project ‘Smart, clean energy, electric vehicles for Cities’ 10:50 – 11:10

Hugo Niesing, Amsterdam University of Applied sciences (Hogeschool van Amsterdam)

Due to a difference in demand and supply of renewable energy, electric vehicles are not always charged with renewable energy and electrical grid instability is an actual concern. The challenge is to structure the system in such a way that electric vehicles will be charged by locally produced renewable energy. These objectives will be realized by using the electric vehicle batteries as a short-term storage of renewable energy, through bidirectional chargers.

The project aims to enable *innovative solutions for energy management and transport planning* by integrating clean electric transport services and renewable energy generation, and the *introduction of new business models* for renewable energy and ultra-low emission mobility services.

Q&A

Cleantech Region: ‘Capturing regenerative braking energy from trains to power buses’ 11:10 – 11:30

Arjan Heinen, Director of Hedgehog Applications

The energy, regenerated by braking electric trains, will be stored in a large battery and used to recharge electric buses and cars. While regenerative braking is in widespread use, energy is wasted when there is no accelerating train nearby to accept energy from a slowing train. Onboard energy storage can be used instead, but Hedgehog plans to use batteries at the stations as they offer a much higher capacity than compact on-board systems. Later this year there will be a pilot project in the Municipality of Apeldoorn, part of the Cleantech Regio.

Mr. Heinen will share his view on the topic (‘buses and trains are brothers and sisters. They are ideal partners and we can’t throw away energy’) and what he envisions his idea will contribute to the challenges that lie ahead on the field of smart mobility. He will also talk about the necessary co-operation with local authorities and national railway organisations.

Q&A

CityLab project and the support for deployment of electric freight vehicles: the case of London 11:30 – 11:50

Jacques Leonardi, Project officer, POLIS Network

The CityLab (City Logistics in Living Laboratories) project aims to improve the understanding of the impacts freight and service trips have in our urban areas.

Transport for London (TfL) supports private initiatives to develop and grow electric freight deliveries in London. It also invests in the creation of hundreds of new plug-in charging points throughout the entire urban area. Grid for public charging is rudimentary, and private

businesses and organisations with large electric fleets use their charging infrastructure on their sites. The logistics business Gnewt Cargo uses only charging points in its private depots. There, vehicles are charged overnight, and used for parcels delivery in city centre.

Companies are facing the challenges related to the implementation of reliable and suitable electricity grids for Electric Freight Vehicles (EFVs): securing sites for and invest in new EV charge points, the availability of sufficient power for rapid charging, and the prohibitive cost of electricity grid upgrades.

In CityLab, when expanding the use of EFVs to new delivery area, new depots need to be used. Investment in new electricity supply is needed at the new depot. Without support, few depots could not be used in London, due to a too weak electricity grid connection, and the need for a costly upgrade. This and other barriers to the growth of commercial markets need to be overcome e.g. with National strategies such as the Go Ultra Low City Scheme.

Q&A



Closing keynote discussion 11:50 – 12:00

Françoise Guaspare, Chairwoman of the Transport Working Group, ERRIN

Karen Vancluysen, Secretary General, Polis network

And the representative of the European Commission:

Axel Volkery, Sustainable & Intelligent Transport (B4)
DG Mobility and Transport, European Commission