

Report on the klimaaktiv mobil THE PEP-Relay Race Conference 2016 Decarbonisation – Zero Emission Mobility starts now!

Summary of the main messages of the Conference

General conference message:

Decarbonisation transport is a long-term challenge and goal for tomorrow, but we have to start action for zero emission mobility today!

International agreed objectives require decarbonisation & zero emission mobility

- **Global:**
 - UNFCC Paris Climate Agreement**
 - UN Sustainable Development Goals SDGs**
- **Pan European:**
 - UNECE WHO THE PEP Paris Declaration 2014
- **EU:**
 - Climate and energy targets 2020**
 - + 20% renewable energy, + 20% energy efficiency, -20% GHG
 - 10% share renewable energy in transport
 - Climate and energy targets 2030**
 - + 27% renewable energy, + 27% energy efficiency, -40% GHG (basis 1990)
 - 43% ETS, -30% non ETS GHG (Effort Sharing) (basis 2005)
 - EU Low Carbon Economy Road Map 2050**
 - 80 % GHG reduction by 2050
 - EU White Paper on Transport:**
 - 60% GHG emissions of transport by 2050

Main thematic conference messages

- **Decarbonisation needs the electrification of the whole transport system wherever possible** e.g railways, public transport and especially all kind of e-vehicles but also construction machinery etc.
- **Promotion of renewable energy is a prerequisite to decarbonize transport:** electricity has to be based on renewables, alternative fuels have to be based on advanced sustainable biofuels in particular biofuels 2nd generation, bio methane, hydrogen also needs to be based on renewables
- **Mobility Management is essential:** to reduce transport demand and to increase transport efficiency promotion of better logistics, modal shift to public transport, promote cycling and walking, car-sharing and multimodal mobility as well as ecodriving embedded in a clever mobility management scheme is needed

- **Promotion of human powered mobility** like walking and cycling in particular by extending infrastructure and reorientation of urban planning and land use policies
- **Extension of infrastructure and networks and services of railways and public transport**, including demand oriented taxis, busses, car-sharing is needed
- **Modal shift in freight and passenger transport from road to rail**
- **Green fleets and green logistics** are important contribution of companies towards environmentally friendly mobility
- **EcoDriving** is helping energy efficient driving of cars, busses, lorries etc right away
- **Re-orientation of land use and urban planning towards energy saving and reclaim of public space for livable cities** instead of urban sprawl and suburbanization,
- **Economic and fiscal incentives are important**, in particular stimulating private and public investments and **green jobs** in green mobility by **financial supporting schemes and funding** on national and European level
- **New mobility culture inducing more multimodal choices and innovative mobility approaches is needed**
- **Awareness raising, creating partnerships** for supporting companies cities etc. are essential for taking action

Cooperation of actors and partnerships are essential

- **Showcase on national level: klimaaktiv mobil, the Austrian national program to promote environmentally friendly mobility,**
 - a good practice example proving how a national support program successfully can motivate and support transport actors like companies and fleet operators, cities, municipalities and regions, leisure and tourism sector, schools and youth organisations to develop and implement mobility projects to reduce GHG emissions significantly
 - Lessons learned by klimaaktiv mobil: Everybody - every company and fleet operator, every city and region, every tourism actor, every citizen can decarbonize, reduce CO2 and environmental pollution !
- **Showcase on international level: THE PEP and its Partnerships**

Investing in decarbonisation & green mobility is good for environment. economy and social fairness, as it is leading to

- **Benefits for environment and better quality of life** for citizens
- **Benefits for transport and economy** due to **funding** of investments and **promotion of jobs, increasing transport efficiency and cost savings**
- **Benefits for health** due to **cleaner air, increased physical activity, traffic safety and social benefits** due to better mobility choices for all !

Detailed Report on the klimaaktiv mobil THE PEP-Relay Race Conference Vienna 2016 Decarbonisation – Zero Emission Mobility starts now!

The conference was organised by the Austrian Federal Ministry of Agriculture, Forestry and Environment in the frame of the national klimaaktiv mobil program jointly with the Austrian Federal Ministry of Transport, Innovation and Technology, the Austrian Federal Ministry of Health and Women's Affairs under the auspices of the THE PEP-Relay Race in cooperation with the United Nations Economic Commission for Europe (UNECE), the World Health Organisation (WHO), Further conference partners were the European Platform on Mobility Management (EPOMM), the Austrian Chamber of Commerce (WKO), the Austrian Automobile Club (ÖAMTC), the Austrian Federation of Municipalities, the Austrian Association of Cities and Towns.

More than 350 participants from 20 different countries (Austria, Belarus, Belgium, Bulgaria, Czech Republic, France, Georgia, Germany, Hungary, Italy, Kazachstan, Netherlands, Poland, Romania, Russian Federation, Slovakia, Slovenia, Spain, Switzerland and United Kingdom) took part in the events and enjoyed valuable discussions and hands-on experiences.

The conference took place at the venues of the Austrian Economic Chamber (WKO) the co-host of the Conference and major partner of the Austrian klimaaktiv mobil program. The first two days of the conference included key notes and stakeholder round tables with impulse statements and speeches of 43 speakers from 12 different countries. The third day of the conference was the practice day, with the possibility to either visit good-practice examples of innovative traffic and fleet solutions or to take part in a eco-driving training and testing of electric cars organized at the driving training centre of the Austrian Automobile Club (Öamtc) jointly with the Austrian association of driving schools within the Economic Chamber and the Austrian Postbus Company. Good practice examples were presented by Austrian Post Company with a focus on CO2 neutral logistics and zero emission delivery with electric vehicles, A1 Austrian Telekom Company on teleconferencing and e-mobility, new urban district development "Lake City Vienna" and e-busses of the Vienna Public Transport Company.

Opening Session

The official opening of the conference was made by Austria's Federal Minister for Environment, Andrä Rupprechter and the General Secretary of the Austrian Economic Chamber, Anna-Maria Hochhauser including statements of Magda Kopczynska (European Commission), Piroska Östlin (WHO), Eva Molnar and Marco Keiner (both UNECE).

A first special highlight was the handover ceremony of the THE PEP-stafette by Irina Miroshnik, organizer of the preceding THE PEP Relay Race Conference in the city of Petrozavodsk, Russian Federation.

In his keynote, Hans Bruyninckx, Director General of the European Environment Agency gave an overview on the severe negative environmental impacts of today's transport and its heavy dependence on fossil fuels demanding concerted actions by national and European policies. He addressed the importance of decarbonisation of the transport sector on a global and European scale. Furthermore he shared his visions for the way towards an emission free mobility until the year 2050.

Patrick Oliva, Senior Vicepresident of Sustainable Mobility and Energy Transition of the Michelin Group pointed at the necessity and the feasibility of zero emission mobility based on clean technologies and efficient mobility management in the long term. He stated the willingness and readiness of industry for a step by step decarbonisation of transport by 2050-2060. He presented the initiative for a Road Map for De-carbonization of the Transport Sector and confirmed the important role of industry for the implementation of the Global Paris Climate Agreement. He highlighted the economic challenges but also economic opportunities and benefits for society of such a transformation to a low carbon economy and decarbonized transport system.

Before starting the stakeholder dialogues the Austrian Minister of Environment Mr Andrä Rupprechter awarded several klimaaktiv mobil project partners for their outstanding projects for environmentally friendly mobility to reduce GHG as best-practice examples including A1 Telekom Austria Group and their CEO.

Stakeholder dialogue 1 „Decarbonising Transport“

After the COP in Paris 2015 and the ratification of the Global Paris Climate Agreement 2016 the central questions now focusses on the concrete implementation actions.

Transport is identified to be a key sector for achieving the requirements of the Paris Climate Agreement. Industry pointed out to be ready for implementation with a Road Map for De-carbonization of the Transport Sector as contribution for the next COP in Marrakesh Nov 2016. 8 priorities were presented in the draft road map version:

- Synergistic urban transformation
- Low-carbon energy supply strategy (renewables, batteries, sustainable bio-kerosene for aviation, low carbon hydrogen)
- Modal efficiency improvement (e.g. 50g CO₂ well-to-wheel/km for cars by 2040)
- Shortened/improved supply chains (fast growing sector, has to be tackled)
- Unnecessary travel reduction (smart working, smart planning, mix of functions)
- Adapted solutions for “rural” world (decentralized electricity goes e-charging)
- Investment in adaption (making systems more climate resilient) and offsetting
- Financial and regulatory tools

It was underlined from a industry point of view that decarbonisation is technically feasible and economically viable and also achievable in the long term 2050-2060.

Stable public supportive frameworks and long term oriented legislation are keys for stimulating long term investments of private sector.

GHG-emission reduction in transport is particularly challenging eg as EU figures show:

- responsible for 32% of final energy consumption
- responsible for 24% of total greenhouse gas emissions
- relying on oil for 94% of its energy needs

At the same time: transport is a key economic sector and enabler of other sectors and crucial for competitiveness

There is not the one single solution doing the trick. A mix of policy instruments and integrated and systematic approach for sustainable decarbonisation of the transport sector is needed. Beside clean vehicles, fuels and transport technologies also mobility management and infrastructure improvements for public transport, cycling and walking, demand oriented behavioural measures and urban and regional planning are essential parts of such a mix of policy instruments.

New mobility concepts, services and technologies like sharing economy, electro mobility, autonomous driving, mobility as a service have to be assessed regarding their impacts and have also to be taken into account within such a policy mix.

It's always about **technologies AND behavioural change**. A new approach to mobility on individual and company level is needed. Mobility management is essential for a proper phasing in of new transportation technologies and to intelligently combine all kinds of transport.

Tools and solutions in Europe are on the way. The Austrian national program for environmentally friendly mobility klimaaktiv mobil is one of the highlighted good practice showcases of how to tackle problems from a national perspective.

To build bridges between the countries the positive role of THE PEP and its partnerships, relay race conferences, capacity building and know-how transfer were acknowledged as outstanding examples on pan European level for sharing experience and achieving progress. In particular THE PEP Partnership on a Pan European Masterplan on Cycling under AT and FR auspices and THE PEP Partnership on Ecodriving were highlighted.

E-mobility have to be seen as a new way of mobility service, not just as cars with a new engine. In order to secure the decarbonisation potential of e-mobility, electric power has to be decarbonized as well and come from renewable energy sources.

A **three-fold strategy to de-carbonize the transport** sector could be:

- Avoid transport
- Modal shift to low and zero emission modes
- Improve efficiency of transport

For decarbonisation of the transport sector, external costs –paid for by society, have to be internalised.

For **cities** "Avoiding transport" and "Modal shift" are crucial and to be implemented by **push measures** (directives, laws & regulative measures) & **pull measures** (more attractive public transport systems and support for active mobility).

More mobility with less traffic (via intelligent spatial and urban planning) is the challenge.

The **health sector** is a strong ally for de-carbonisation and climate protection. Sedentary lifestyle is a risk for diabetes, heart conditions, depression etc. Carbon-based mobility enhances climate change, enhances a sedentary lifestyle and therewith has a double-negative effect on health (threats to clean air, drinking water, availability of food and vector borne diseases etc.).

Thus the creation of a WIN-WIN situation by replacing carbon based mobility by physical based, active mobility is key! This brings benefits to health and climate!

Stakeholder dialogue 2 „E-mobility management in cities“

E-mobility is one step stone on the way to an "ideal city", where the aim is to "flip over" the usual modal split pyramid: from car dominance to walking/cycling dominance together with public transport and integrated forms of transport (e.g. Car-sharing).

A **mix of transport measures** (walkways, cycleways, bus rapid transit) can bring down CO₂ emissions by 25% (WHO numbers; Health in IPCC's climate change mitigation strategies for transport)

Getting **dirty cars out of the cities** is **more important than getting clean cars in!**

Cities with high share of cycling are usually less congested and better accessible. This also benefits local economy and shops!

Also the e-car does not help against congestion

E-mobility is only green if electricity is green!

Further electrification of public transport is also needed as very important measure beside e-vehicles.

Also newly built areas and the refurbishment of old buildings can take care of active modes of transport and e-vehicles. For that, **mobility contracts** between cities and real estate developers/landowners are successful tools to be more widely used.

Experiences from e-mobility model regions (AT) show that **supporting e-mobility proves to be effective**: 1.2 % of newly registered vehicles in AT are BEVs, but double as much in the supported model regions (2.4 %)! According to **TCO (Total Costs of Ownership) calculations e-cars are already compatible** in some cases!

Stakeholder dialogue 3 „Mobility Management & Green Logistics in Companies“

Green Logistics can bring down carbon emissions from this specific sector by a considerable share: It starts with locating logistic infrastructure/warehouses close to rail and water transport infrastructure (and to some extent road), e.g. logistic centres
Coupling of renewable electricity production at warehouses and transport (photovoltaic, solar heat electro mobility) is a chance and a business model.

Goods transport has to become a factor 6 more efficient until 2050 (factor 3 by 2030)
Not branch specific but branch-overarching approaches taking into account the whole supply chain are necessary.

Stakeholder dialogue 4 „Green Fleets and Green Logistics“

An promising threefold approach to decarbonize fleets would be:

- Modernized fleets. Fuel efficiency standards also for lorries are expected to be implemented in the next months.
- Alternative vehicles, fuels and drives
- CO₂ compensation for remaining GHG emissions from transport fleets
- Digitalisation and ITS have to help greening freight transport.

4 out of 17 **SDG - Sustainable Development Goals** impact sustainable transport! Freight emissions are supposed to rise much faster than from passenger transport.

Electric busses will be more and more **compatible** to conventionally fuelled busses.

Stakeholder dialogue 5 „EcoDriving – Lessons Learned and THE PEP partnership“

The session was organised within the **THE PEP Partnership on EcoDriving**. The objective of this session was to present the experience and best practices on EcoDriving for cars, trucks, buses and locomotives from different countries. The presentations of the initiatives and programs from Greece, Kazakhstan, The Netherlands and Austria confirmed once again that EcoDriving significantly contributes to energy saving, air quality and traffic safety.

International EcoDriving projects all prove that educated and trained drivers can easily reach fuel reductions of 20-30% by practicing a safe, relaxed economic driving style.

The presentations also showed the importance of integrating EcoDriving international strategies on climate protection, energy saving and traffic safety. The conclusion of the session was that the sharing of experience and best practices on EcoDriving should be strengthened within the THE PEP partnership in the next 2 years with a view to developing and presenting EcoDriving guidelines for the ministerial THE PEP meeting 2019 in Vienna

In the Concluding Session the main messages as compiled in the summary at the beginning of the report were presented, discussed and generally agreed.