

Workshop

Incentives, conditions and regulations for large scale electrification of Urban Freight and City Logistics

Co-organised by EMEurope, ETP-ALICE and POLIS

Online (Zoom) | 30 June 2021

Summary

The workshop started with a short introduction about the EMEurope goals and main components by EMEurope coordinator Marcia Giacomini. In short, the EMEurope initiative is designed to take transnational e-mobility research and policy exchange towards deployable solutions, and to stimulate and enhance policy cooperation and exchange in the field of e-mobility. EMEurope has a two pillar composition: (1) policy cooperation between countries, regions and networks and (2) a single call for proposals in which 13 projects have been funded.

On behalf of the European Commission, DG Research and Innovation, Patrick Mercier-Handisyde highlighted the importance of the uptake of large scale electric mobility and the cooperation on different levels (e.g. cooperation with stakeholders, member states and networks as ALICE and Polis) to achieve it.

Giacomo Lozzi and Fernando Liesa representing respectively Polis and ETP-ALICE explained that the objective of the cooperation between both networks is to ensure a strong strategic industry & cities dialogue to share experiences, best practices and to facilitate collaborations between cities and industry to accelerate deployment of solutions towards sustainable zero emissions urban freight and city logistics. This joint initiative focuses on five main areas: smart governance and regulations, clean and alternative fleet, logistics operations, purpose-oriented data acquisition and consumer engagement.

Both emphasized the need to use a holistic approach to be able to cope with all the challenges. Polis and ALICE members are working on a joint position paper on the topic that will be presented at the Polis Conference on 1-2 December 2021 in Gothenburg, Sweden.

Furthermore, they stressed that establishing strategic collaborations between CIVITAS and industry representative networks are of extreme importance. There is also a need for a proper framework for digitalization and data collection and sharing in the urban logistics domain. In addition, the role of freight and logistics needs to be reinforced in the overall city strategy with dedicated Smart Urban Logistics Plans (SULPs) or well-defined SULPs within the SUMP.

Then, Torsten Klimke (EC, DG MOVE) presented a brief overview on current and future initiatives of the European Commission on the subject of green mobility. The sustainable and smart mobility strategy has three objectives: sustainable, smart and resilient mobility. Urban mobility and logistics are part of this strategy. In order to support Member States, regions and cities in the development of safe, accessible, inclusive, smart, resilient and zero-emission urban mobility, the European Commission is working on a new EU urban mobility framework (UMF). This approach includes a roadmap and link to initiatives such as the revision of the Alternative Fuels Infrastructure Directive (AFID) (now AFIR, Alternative Fuels Infrastructure Regulation), Intelligent Transport Systems (ITS) Directive, Energy performance of buildings directive and the CEF/TEN-T regulation.

There is a specific part for urban freight transport and logistics in the UMF and it focuses on TEN-T urban nodes. Its objective is to support cities in achieving carbon-neutral logistics and reach zero emission delivery in urban nodes (more than 100.000 inhabitants) by 2030.

A 12-week open public consultation has started and the adoption of the UMF is expected by the end of 2021 (end November/early December).

link for consultation: [Sustainable transport – new urban mobility framework \(europa.eu\)](https://ec.europa.eu/transport/themes/urban-mobility/framework_en)

Conditions for electric Urban Freight and City Logistics

During the session on conditions for electric urban freight and city logistics, representatives of the three collaborating networks of ALICE, POLIS and respectively EMEurope presented their activities and experiences. A summary of their presentations is presented below.

Klaus Stodick (CSR UPS/DE) showed how the electrification of the fleet is taking place at UPS. Among the challenges faced are the availability and high costs of suitable vehicles and infrastructure and the efficiency of the technology. As part of its approach, UPS opted for the retrofitting of diesel vehicles with electric engines and currently around 300 e-vehicle are on duty within the EU. Additionally, UPS is also using e-bikes to achieve a reduction in city traffic as well. In Germany, there are about 80 e-cargo bikes in use.

Pierre Launay (Île-de-France Region) presented the perspective of Ile-de-France Paris region, the major transport and logistics hub in France. In France, transport, economic development and environment are under regional authority, but the local planning and road infrastructure are not. The region offers general incentives for electric mobility, subsidizing charging points for municipalities and public establishments, and the acquisition of clean vehicles for small private companies. The regional strategy for freight and logistics includes open calls that support innovation and experimentation, public-private initiatives and better accessibility of logistics areas and truck parking lots. In addition, energy supplies and waste management companies (for production of hydrogen) can make use of a capital participation in SEM SIGEIF MOBILITIES (semi-public company) for the development of multi-energy service stations.

Laura Popp of Austriatech presented the Austrian policy measures supporting electric mobility. Concerning technology, support is currently given for electric batteries but the funding focus will shift to infrastructure. The timeline set by manufacturers for targets and strategies shows that battery electric vehicles will prevail in the future market. Laura showed an overview of possible national regulatory measures under consideration and



mentioned some current research activities related to electric road infrastructure, retro fitting potential for conventional commercial vehicles to zero-emission and zero emission logistics for inner city delivery with e-trucks. For Austria, international cooperation is vital, among other things through programmes such as ERA-NETs and projects as “Sustainable logistics 2030+ Lower Austria-Vienna.

Incentives and regulations for electric mobility in Urban Freight and City Logistics

Magnus Blinge (Scania and ALICE Urban Logistics Vice-chair) talked about the incentives, conditions and regulations necessary for large scale electrification of urban freight and city logistics. Magnus observed that batteries are expensive and battery sizes need large spaces, making clean vehicles to offer low margins for transport companies. Additionally, opportunity charging in city environment increased utilization. The range of vehicles is extending, but opportunity charging will still be needed, especially for 24/7 services. It is necessary to consider issues related to these observations and plan ahead to secure the scale-up and roll-out of zero emission vehicles. Taking into account conditions and regulations necessary, it is important to have a holistic system perspective for different transport vehicles. As an example, one distribution truck does the job of 5 vans and off-peak deliveries are 30% more efficient in time. Electric trucks are emissions free, silent and safe and regulatory issues should be updated accordingly. Furthermore, vehicle traceability for legal compliance using geofencing could be an option, but data security needs to be investigated and a system approach is needed.

Sergio Fernández Balaguer (EMT - Municipal Transport Company of Madrid) explained that EMT operates and manages the complete network of public urban buses in Madrid and other public mobility services. Additionally, it offers some of its facilities for logistics mobility hubs and participates in several European projects, and some of these projects are specifically dealing with the electrification of freight and logistics. These include the development of a 7 tons fully electric truck, use of digital twins, creation of knowledge platforms and various models and examples of implementation. The city of Madrid has several policies and regulations of electrification, all of them aligned with the National Integrated Plan for Energy and Climate 2021-2030. Madrid considers electrification as key in urban logistics.

The Dutch approach to zero emission zones for freight was given by Rosemarie Cramer (I&W). At least 30 cities will implement a zero emission zone until 2030. Zero emission zones stimulate the demand for zero emission vehicles and contribute to zero emission transport by 2050. In order to achieve this goal, the logistic sector, local and national governments work together. The zones will be implemented from 2025 onwards. Because access parameters and regulations differ between cities, until then, for uniformity and clarity reasons, some further harmonization is needed.

Discussion

After the presentations in both sessions, several topics were discussed by the speakers and participants. The main topics and opinions/insights are summarized below.

Micro depots: For the replacement of trucks by e-bikes, inner cities storage rooms of approximate size of 30m² are necessary but difficult to find and most of the times unaffordable. These micro depots can be shared and coordinated with other companies/partners. Same applies for charging facilities.



It was pointed out that a single company cannot solve the infrastructure issues, the sector needs to be mobilized and companies are calling for cooperation. Transport, energy and information infrastructures are necessary for the flow of goods in and out of the cities. There is a certain risk that only the larger companies will be able to properly cope with the implementation of electrification.

Rare materials: It is a crucial issue (less than 1 percent of vehicles is electric today) and can become a major constraint for mass battery production in the future. Increasing and optimizing the recycling of batteries is crucial in this. Fortunately, progress is being made on this quickly

Logistic hubs: Hubs from EMT are equipped with charging stations and are being built in public spaces and operated through public concessions. Many logistic operators find difficulties to rearrange their operations and make use of these shared facilities. A dedicated session on this particular issue (sharing facilities) could be a good idea, as there are several points to be discussed and ETP-Alice would like to support such an event. Some logistic operators such as UPS do not charge during the day and therefore do not have the need to split or share any charging infrastructure.

Zero emission zones: In the Netherlands the logistics operators have had ample time to prepare for and anticipate to the new regulations of zero emission zones and to explore innovative solutions. Small companies, that do not have the financial means to invest in zero emission vehicles, can apply for financial support in the form of subsidies. Supervision, enforcement and sanctions are still under discussion and the same goes for how to deal with hybrid vehicles

Opportunities and possibilities for cooperation:

The EC could support the member states by strengthening the knowledge transfer and support mechanisms and actions to facilitate those.

It is clear that no stakeholder can solve all issues alone and that there is need for overarching, continuous cooperation between all stakeholders. It is essential to support a strategic dialogue on different levels (local, national, EU level). Furthermore, there is need for closer cooperation between partnerships (Polis, ALICE, EMEurope) as all these networks/partnerships have their complementary role and focus. An overarching strategic dialogue/framework between stakeholders is currently lacking. The involvement of EMEurope in the process is welcome and not as a single event but more structural, having a policy oriented focus group to follow up on the discussions, such as on scaling up issues.

Multi-level governance on local, regional, national and EU level would be valuable. On a local level, regarding cities to move forward, a living lab approach is interesting as all stakeholders can here work together. There is however a risk that living labs focus on specific issues and provide specific solutions that only apply for a limited number of participating cities.

It is also important to include the national perspective, especially to reach out to cities that are not active. Large companies are already involved, many small companies however cannot afford to join due to administrative burdens and limited resources. Cities often have a lack of personnel and knowledge concerning all supporting opportunities.

Countries observe complexity in addressing companies needs as these are usually quite fragmented and diverging from company to company. Countries would benefit from strategic dialogue among companies that can raise consensus on sectorial proposals on



how to accelerate decarbonization of freight transport and logistics that could be better framed through countries policies and programmes.

A holistic approach is needed here. In the UMF the EC will launch a specific mission on cities, also including energy and social aspects. The EC welcomes all to participate in the open consultation regarding the UMF.

