

ELIPTIC USER FORUM REPORT AND MINUTES

Friday 13 November 2015 – Berlin
Venue: TU Berlin: Technische Universität Berlin,
Main building, Room H2035, floor 2
Straße des 17. Juni 135
D-10623 Berlin

AGENDA

OPTIONAL EVENT: Thursday 12 November 2015, 11:15 – 15:45. Site visit to Eberswalde Use Case. Open to all User Forum participants.

Moderator: Bonnie Fenton, Rupprecht Consult		
TIMING	ITEM	WHO
8:30 – 9:00	Registration	ALL
9:00 – 9:10	Welcome and introduction	ELIPTIC coordination team Bremen / UITP
9:10 – 9:25	E-bus Berlin project	Prof. Dr.-Ing. Dietmar Goehlich, TU Berlin
9:25 – 9:35	Introductory round to forum members	ALL
9:35 – 09:50	Introduction to the ELIPTIC project	Michael Glotz-Richter, Bremen
9:50-10:00	Introduction to the User Forum	Yannick Bousse, UITP

10:00– 10:45	Introducing you to each other: results of the pre-workshop questionnaire	Yannick Bousse, UITP Bonnie Fenton, Rupprecht Consult
<i>Coffee break 10:45 – 11:15</i>		
11:15 – 11:40	<p>Introduction to ELIPTIC thematic pillars Presentation of the three ELIPTIC Pillars:</p> <p>1) Safe integration of ebuses into existing electric PT infrastructure in the areas of</p> <ul style="list-style-type: none"> • (re)charging ebuses “en route” (e.g. trolleybus operated on tram infrastructure) or on the spot (battery buses/ hybrids charged from trolleybus, tram, metro network); • upgrading trolleybus networks with battery buses or trolley hybrids (diesel bus substitution); • automatic wiring/de-wiring technology (catenary-free trolleybus operation). <p>2) Upgrading and/or regenerating rail electric public transport systems (flywheel, reversible substations)</p> <p>3) Multi-purpose use of electric public transport infrastructure: safe (re)charging of non-public transport vehicles (pedelecs, electric cars/ taxis, utility trucks).</p>	Yannick Bousse, UITP Helmut Berends, Berends Consult
11:40 – 12:20	<p>World café round 1 Participants divide into groups per thematic pillar and discuss the ELIPTIC use cases</p>	All
12:20 – 13:00	<p>World café round 2 Participants choose a second thematic pillar for a second round of discussion</p>	All
13:00 – 13:15	Summary and outlook	Michael Glotz-Richter, Bremen Yannick Bousse, UITP ELIPTIC Coordination team
<i>Lunch 13:15 – 14:15</i>		
14:15 – 16:30	<p>Site visit Intelligent Mobility Station Südkreuz</p> <p>Visit to intelligent intermodal transportation hub Berlin Südkreuz. In order to reinforce intermodality in public transit, the idea is to use renewable energy generated within the urban</p>	ALL

	<p>center and combine it with innovative storage and charging systems in the public sphere. The intelligent mobility station will thus offer a fully electric mobility experience that is powered by locally generated renewable energy.</p> <p>Focus Areas:</p> <ul style="list-style-type: none"> • Charging infrastructure of E-Bus Berlin line 204 • Integration of electromobility in the public transport sector into the everyday operations of a transit station (eCarsharing, Pedelecs) 	
About 16:30	End of event at Berlin Südkreuz station	

MINUTES

- Welcome words from Michael Glotz-Richter, Yannick Bousse and Bonnie Fenton.
- E-bus Berlin project presentation: Prof. Dietmar Goehlich presents the activities of TU Berlin, E-bus Berlin project and Mobility2Grid Research Campus.
- Introductory round to forum members: presentation of each participant.
- Presentation on the ELIPTIC project and the User Forum.

- Introducing you to each other: results of the pre-workshop questionnaire. It was highlighted:
 - It is explained why this group of experts is important for ELIPTIC. These cities are the frontrunners and ELIPTIC would like to monitor their progress, follow and learn from them and spread this knowledge to others in Europe. This group will also speed up the development of electric public transport.
 - There is a large number of public transport companies and operators in the group and most have an operational area between 100,000 and 500,000 inhabitants.
 - The discussion then moves to energy consumption monitoring tools for e-buses. 66% of participants do not use energy monitoring tools in their fleet.
 - Vienna measures the energy used by their buses and has real time data. They have found this to be a good investment as they know exactly their energy consumption.
 - Many do not however measure their energy consumption as this is seen to be expensive to implement.
 - Madrid is collecting data on energy consumption but it is not monitored.
 - In Rotterdam the energy consumption data is measured but the subsidy provider does not require the data. The amount of buses also has a consequents on the data collection.
 - Prague is trying to gather data from operational buses.
 - The key point for Oradea in measuring energy consumption is to monitor their costs.
 - The discussion then moves to the driving forces to enhance e-mobility in the city.
 - CO2 reduction, improving public image, emissions regulations and political pressures rate highest as driving forces.
 - In Rotterdam it was RET who first planned to reduce CO2 and then additional pressure came from the public transport authority, the city and national authorities.
 - Maribor has just approved their SUMP in June 2015. They first want to increase the PT share and then the share of electric public transport.
 - In Bremen the largest pressure is air quality however they operate under tight financial conditions and still feel uncertain about what technology to invest in.
 - Reducing noise and PM10 were not options in the survey but are noted also as drivers for electric public transport.
 - The discussion then moves to the interest of participants in ELIPTIC and most are interested in Pillar A – Integration of e-buses.
- The three ELIPTIC thematic pillars are then presented followed by two rounds of World Café.
- It was highlighted for Pillar A – integration of e-buses:

- Drivers:
 - Impacts on population health.
 - The public perception and policy strategy are important for decision makers.
 - Sending a clear message to citizens that the PTO is improving living conditions and implementing new technologies.
 - Financial incentives such as tax reductions.
 - High quality of design for e-buses and bus stops.
 - Big cities should set an example for small and medium sized cities.
 - Less noise and no pollution that can be achieved with trolleybuses.
- Barriers
 - Cost of e-bus systems.
 - Standardisation.
 - Lack of business case for e-buses and lack of knowledge.
 - Specialised training of staff. Cross departmental and company training could provide a solution.
 - Insufficient funding for noise reduction.
 - Certain climatic conditions, topography, city density, and land use.
 - Scaling up from demonstrations with single prototypes to full operational fleets.
 - Getting the political level on board and cooperation with the city council. A solution for this is to do promotion of the PTO activities and give advice to the political level.
 - Passengers want e-buses in their cities but are not willing to pay more in their fares to cover the additional costs of the vehicle.
 - The quality of the battery. Charging devices and infrastructure that have a modular approach.
 - Depreciation of buses. The vehicle construction and chassis should be improved.
- Solutions:
 - In Barcelona there is the LIVE platform which brings together politicians, industry, public transport operator and universities.
 - In Tampere there is an Innovation Forum and they are part of the E-bus observatory.
 - Budapest has passed the risks of operating e-buses to private operators in their tendering process.
 - Experience sharing, networking and pool of experts could help find solutions.
- It was highlighted for Pillar B:
- Drivers:
 - Increase and improve energy savings.
 - Extension of the public transport network and service.

- Intelligent energy management.
- Developing a second life concept for batteries and the communication between the vehicle and grid.
- Barriers:
 - Space for technical solutions such as energy storage in local neighbourhoods and smart grid solutions.
 - The utility companies pursue generating energy.
 - The reliability of new technologies.
 - How should recovered energy be used? For general use, such as lighting etc., the metro grid, heating and cooling or for other e-vehicles such as e-bikes and e-cars
 - How should the energy be stored? Via the vehicle or sub-station?
- It was highlighted for Pillar C:
- Drivers:
 - Quality of life and air quality.
 - Achieving value for money.
 - Reducing noise.
 - Political will.
- Barriers:
 - In Hungary and Romania it is legally not possible for the PTO to become a reseller of energy. In Finland there are no legal problems.
 - There is a lack of a business case.
 - Complicated planning process with many stakeholders and a lack of awareness.
 - The cost of infrastructure and lack of availability of funding.
 - Strong lobby of energy companies.
 - There is need for more e-car sharing charging stations.
 - Uncertainty in demand.
 - A lack of space.
- Following the World Café, participants took part in a site visit to the Intelligent Mobility Station Südkreuz where an inductive charging infrastructure of the E-Bus Berlin line 204 and electromobility smart grid with e-carsharing and pedelecs are presented by Deutsche Bahn.

PARTICIPANTS LIST

Name	First Name	Organisation
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