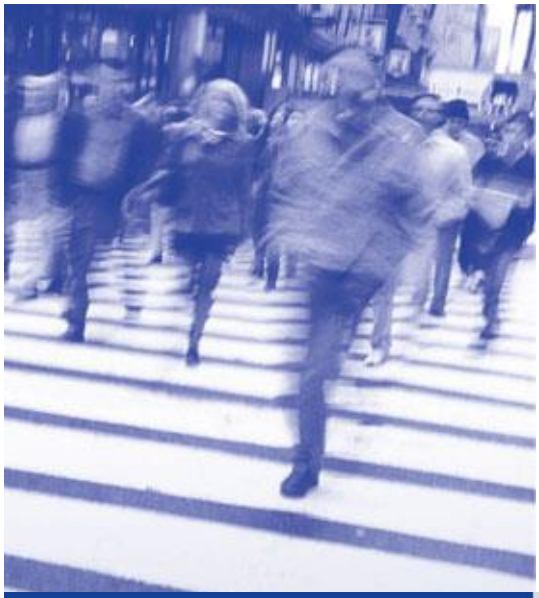

CiViTAS
Cleaner and better transport in cities

DYN@MO
AACHEN • GDYNIA • KOPRIVNICA • PALMA

Summer University

Implementing city and citizen friendly electric vehicles

Palma (Mallorca), 14-16 May 2014

PROGRAMME

Universitat de les Illes Balears
Departament de Ciències de la Terra
Grup d'Investigació de Turisme, Mobilitat i Territori (GITMOT)

Ajuntament de Palma
SMAP Societat Municipal d'Aparcaments i Projectes de Palma
EMT Empresa Municipal de Transports de Palma de Mallorca
eurolocal mallorca

CiViTAS Cleaner and better transport in cities DYN@MO

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Purpose of the DYN@MO Summer University

General aim of the DYN@MO Summer University concept

Structured learning and building of professional competences in sustainable urban mobility is a major aim of the CIVITAS DYN@MO project. To promote European level exchange and learning about CIVITAS themes, the project is offering three sessions of the DYN@MO Summer University. The target groups of the Summer University are students and young professionals, as well as mid-career employees and selected decision makers working on sustainable urban mobility.

The sessions are being organised by the Universitat de les Illes Balears in 2013, 2014 and 2015. The University offers an excellent infrastructure for holding summer courses and dedicated University staff ensure effective delivery of such courses. The easy access with many direct plane connections to many European countries makes Palma a suitable destination for urban transport professionals. Each of the sessions lasts for three days and focuses on one of the three challenges of the CIVITAS DYN@MO project:

- Engaging in a dynamic dialogue for SUMP development (2013) (a documentation is available from: http://gitmot.uib.es/USB Summer University/START.html);
- Implementing city and citizen friendly electric vehicles (2014) (register on the CIVITAS website: http://civitas.eu/content/civitas-dynmo-summer-university);
- Developing “Mobility 2.0” systems and services (2015).

The University partners, competence centres and measure leaders of the CIVITAS DYN@MO project provide the content of the courses. In addition international experts are invited to contribute to each of the courses. To make the courses accessible to Spanish speaking young professionals and students, the University provides simultaneous translation for the first plenary day which is held in English. The courses during the other two days will be held in Spanish.

Specific aim of the 1st DYN@MO Summer University in Palma, June 2013

- To train Palma project partners and associates regarding the requirements of sustainable urban mobility planning;
- To educate students and young professionals in advanced urban mobility planning in Europe;
- To set a foundation for engaging stakeholders and citizens in a dynamic dialogue in the sustainable mobility planning process in Palma as part of the DYN@MO measures.

Concept of the 2014 DYN@MO Summer University in Palma

The second Summer University will be held on 14-16 May 2014.

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The main language of the first day and the morning of the second day is English. Simultaneous interpretation between Spanish and English will be provided. The afternoon of the second day and the third day are entirely in Spanish. There will be no interpretation.

Outcomes of the Summer University

The Summer University 'students' will gain new information and knowledge from transport researchers and professionals on implementing electromobility as a means of sustainable urban transport. Participants will receive training documentation and background material on *Implementing city and citizen friendly electric vehicles* shortly after the course. A certificate of attendance at the end of the DYN@MO Summer University will declare that the 'students' have acquired basic knowledge about requirements of topic.

Introduction to the topic 'Implementing city and citizen friendly electric vehicles'

1) Why electromobility?

"Since the first big oil crisis 40 years ago – despite technical progress, potential for cost-effective energy efficiency improvements and policy efforts – the transport system has not fundamentally changed. Transport has become more energy efficient, but EU transport still depends on oil and oil products for 96% of its energy needs. Transport has become cleaner, but increased volumes mean it remains a major source of noise and local air pollution." (EC White Paper "Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system", COM(2011) 144 final, p. 3f.).

2) Kinds of electromobility

While public electromobility on rails and with trolley systems is established, in recent years new electromobility technologies became almost marketable for individual vehicles. A real boom exists in several countries with electric bikes.

In simple terms electromobility is the replacement of private cars with combustion engines with electric or hybrid cars. Of course, this is a big advantage for the quality of life for people living at main streets, because noise and pollution can be reduced; maybe also road safety will increase because of the improvement in "car to environment"-communication. But for the problems of congestion and insufficient space for other activities, this does not help at all. Therefore it is necessary, that the "revolution" in car technology is combined with a transformation of the use of cars.

3) Local challenges to support electromobility

Cities and regions are facing the challenge of having to decide how to establish good framework conditions for emission free vehicles. How can it be achieved that citizens will be using electric vehicles (EVs) although purchasing costs are higher compared to conventional vehicles? How to reduce scepticism towards using electric cars as they have a lower range than conventional cars? One of the solutions is the trend towards car sharing and to mobility packages. With regard to these issues the EC Transport White

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Paper also includes a goal: “By 2020, establish the framework for a European multimodal transport information, management and payment system”.

Next to the still rather low number of electric cars cities also have to decide how to best make use of the prospects of electric bicycles and how to reduce the dependency on oil with regard to bus transport.

In recent years many efforts have been taken on technological level. In addition, cities and regions also need support on how to address organisational issues and how to create a climate allowing for a successful diffusion of new technologies. Such a climate is necessary in order to achieve the first goal of the EC Transport White Paper: “*Halve the use of ‘conventionally-fuelled’ cars in urban transport by 2030; phase them out in cities by 2050; achieve essentially CO_2-free city logistics in major urban centres by 2030*”.

4) Electromobility in DYN@MO

“Clean vehicles” is one of three horizontal workpackages in the DYN@MO project. In each of the four cities several measures will be implemented. They cover the following fields, which all can be considered as “public electromobility”:

- Local electromobility strategies
- Implementation of pedelec-sharing systems
- Improvement of the trolleybus technology
- Test and conversion of hybrid and electric buses
- Implementation of electric cars and vans into municipal fleets
- Building of new car-sharing stations with electric cars
- Creation of stimulating conditions for electric cars
- Installation of charging infrastructure
- Alliance of electromobility and mobility management
- Alliance of electromobility and renewable energy
- Promotion activities for all kinds of electromobility

At the summer school experiences from the four European cities will be presented and discussed.

Measures on electromobility in the four DYN@MO cities:

Palma

- Measure P2.2 Hybrid/ electric vehicles in public transport and electric vehicles in public services
  - Introduction of two hybrid/ electric or electric buses, 9 electric cars and 10 electric scooters in the municipal fleet, 20 charging points.
  - New guidelines for public tenders (10% of the vehicles of city departments and subcontractors are electric)
  - Raise awareness about electric mobility among general public and local fleet owners

- Measure P2.3 Promote the uptake of electric vehicles among general public and goods distribution companies
  - Establishment of a friendly environment for the uptake of electric vehicles

- 12 new intelligent public charging points
- Free parking fees for EVs
- No access restrictions for delivery EVs
- Large information campaigns
- Increase of number of EVs in Palma to 1,000 by the end of the DYN@MO project

Aachen

- Measure A1.2 Electromobile living
  - Combined and comprehensive offer of conventional and electric carsharing, pedelec-rental-system, combination with public transport services at three living districts
  - Generation and distribution of electricity based on photovoltaic systems for electric mobility
  - Awareness raising regarding the use of green electricity as a “fuel” for advanced urban mobility within the three demonstration sites of electromobile living

- Measure A2.1 Implementation of environmental-friendly and silent vehicles
  - Encouragement for the use of smaller, lighter and more appropriate city vehicles by showing reasonable fields of application for hybrid and electric vehicles in cities to the public, raise awareness about benefits of electromobility
  - Reduction of oil dependency and number of ‘conventionally-fuelled cars’ through the installation of 2 pedelec stations, 2 mobility points with pedelecs and hybrid cars and the replacement of 2 vans by electric vans
  - Raising awareness about increasing oil consumption (peak oil), the need for (regional) renewable energy production and the potential of all kinds of electric vehicles
  - Development of economic sustainable transferable promotion solutions for cities, to improve emission and noise situation at main roads through fast expansion of clean city vehicles; development of an implementation strategy for clean city vehicles as reference for other cities

- Measure A2.2 Integration of hybrid buses – towards a clean fleet in public transport
  - Reduction of noise emissions by implementing four hybrid buses
  - Reduction of CO_2 ,particle emissions and energy consumption of buses of 20%
  - Understanding of an innovative bus technology regarding decisions for the future fleet

Gdynia

- Measure G2.1 Innovative Li-Ion hybrid trolleybuses on new line
  - Increase of the reliability and flexibility of the trolleybus system
  - Conversion of two innovative Li-Ion hybrid trolleybuses and deployment on a 2 km new line
  - Reduction of energy consumption by up to 3% as a result of reduction weight of vehicle
  - Increase of space for passengers by 7 people through reduced battery sizes

- Measure G2.2 Supercaps for more efficient trolley system
  - Reduction of energy power demand of trolleybus system by 20% compared to current monthly demand

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- Improvement of energy efficiency of trolleybuses and the existing infrastructure by recuperation of energy from breaking and storage
- Set-up a national and European show case for innovative technology in public transport operation

<u>Koprivnica</u>

- Measure K2.1 Electric municipal car-sharing scheme
  - 30% of municipal fleet becomes electric
  - Reduction of CO_2 emissions of municipal fleet by 27%
  - Reduction of operating cost for municipal fleet by 24%
  - Awareness building for the efficiency of electric vehicles
  - Implementation of a municipal electric car-sharing scheme
  - Installation of private and public charging points for EVs

- Measure K2.2 Low emission public transport in Koprivnica
  - Establishment of first public transport in the city of Koprivnica based on electric minibuses

PROGRAMME

Implementing city and citizen friendly electric vehicles
CIVITAS DYN@MO Summer University 2014
14-16 May 2014, Palma (Mallorca), Spain

DAY 1 – 14 May 2014 **European framework for electric mobility** **Venue: Edifici Sa Riera, UIB, C/ de Miquel dels Sants Oliver 2, Palma** *Moderator: Bernd Decker, Rupprecht Consult, DYN@MO Project Manager* *Languages: English and Spanish (simultaneous translation available)*	
14:00	Registration of participants
14:30	Welcome speeches • *Llorenç Huguet, Vice-Chancellor of the University of the Balearic Islands* • *Gabriel Vallejo, Councillor for Mobility, City of Palma* • *Eckard Larosch, City of Aachen, DYN@MO Project Coordinator* • *Miquel Grimalt, Head of Department of Earth Sciences, University of the Balearic Islands* • *Joana Maria Seguí, University of the Balearic Islands, DYN@MO Project Site Evaluation Manager*
15:00	Policy options for the promotion of electric vehicles in Europe and beyond *Jordi Perdiguero García, Department of Applied Economics, Autonomous University of Barcelona*
15:45	The Green eMotion project – A pan-European effort towards an interoperable electromobility system *Lourdes Garcia Duarte, R+D Project Manager, Endesa*
16:30	COFFEE BREAK
16:45	Electromobility activities of Michelin *Antoine Féral, Michelin France*
17:30	"ebus. the smart way" – Electric buses in Europe: status quo *Wolfgang Backhaus, Rupprecht Consult, TROLLEY Project Manager*
18:15	End of session day 1

DAY 2 – 15 May 2014
European Experiences with Electromobility
Venue: Edifici Sa Riera, UIB. C/ de Miquel dels Sants Oliver 2, Palma
Moderators:
- *Bernd Decker, Rupprecht Consult, DYN@MO Project Manager (morning)*
- *Maarten van Bemmelen, Eurolocal, DYN@MO Project Site Coordinator (afternoon)*

Languages:
- *English (morning) (simultaneous translation into Spanish available*
- *Spanish (afternoon) (no translation into English available)*

9:00	Welcome *Bernd Decker, Rupprecht Consult, DYN@MO Project Manager*
9:05	The ElectriCity project in Gothenburg *Ulrika Bokeberg, Director of the Public Transport Authority, Region of Västra Götaland*
9:45	Delivering clean urban transport in Aachen: Planning and implementation strategies to boost electromobility *Georg Werdermann, City of Aachen, DYN@MO Project Coordinator*
10:30	Current technology innovation trends in trolleybus transport *Marta Woronowicz, PKT (Trolleybus transport operator / Gdynia), DYN@MO Project Measure Specialist*
11:15	COFFEE BREAK
11:30	Implementation of electromobility in Koprivnica – Challenges and opportunities *Nebojša Kalanj, City of Koprivnica, DYN@MO Project Site Evaluation Manager*
12:15	Parallel working groups on electromobility technologies • Integration of electric vehicles in smart networks and renewable energies *Liana M. Cipcigan, University of Cardiff* • Converting hybrid buses into electric buses *Walter Eßer, ASEAG (Public transport operator Aachen), DYN@MO Project Measure Leader* • eCo-FEV – Efficient cooperative infrastructure for fully electric vehicles *Hristiyan Stoyanov, European Centre for Information and Communication Technologies (EITC), eCo-FEV Project Manager*
13:15	LUNCH
14:30	Strategy of Spanish Government in promoting the electric vehicle *Isabel del Olmo, Manager of Transport Department, Institute for Energy Diversification and Saving (IDAE), Ministry of Industry, Energy and Tourism*
15:15	LIVE: Strategy for implementing electric mobility in the city of Barcelona and its metropolitan area *Ramon Pruneda, Project Manager for Energy and Mobility, Department of Economics, Business and Employment, City of Barcelona*
16:00	COFFEE BREAK
16:15	Site visit to HERTZ, rental company of electric vehicles Presentation on and testing of electric cars
18:00	End of session day 2
20:00	*Official invited speakers dinner*

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DAY 3 – 16 May 2014 **Electric mobility in Spain** *Moderator: Maria Rosa Martínez, University of the Balearic Islands, DYN@MO Project Site Evaluation Manager* *Language: Spanish (no translation into English available)*	
9:00	Welcome *Maria Rosa Martínez, University of the Balearic Islands, DYN@MO Project Site Evaluation Manager*
9:05	The electric vehicle, towards an efficient mobility in Balearic Islands *Miquel Roca, University of the Balearic Islands, Director of Chair EndesaRed UIB*
9:50	Measures to promote electric mobility in the City of Palma *Mateu Maimó, City of Palma, DYN@MO Project Measure Leader*
10:35	COFFEE BREAK
10:55	Parallel working groups on electromobility experiences in Spanish cities • Madrid. Sergio Fernández, *Management Consulting and New Services, Consulting and European Projects, Municipal Transport Company of Madrid* • Málaga. *Alfonso Palacios*, *Project and Studies Department*, *Municipal Energy Agency*, *City of Malaga* • Palma. *Llorenç Mestre, Technical Director of EMAYA*
12:00	Round table: Stakeholders participation for electromobility Moderated by Gabriel Vallejo, Councillor for Mobility, City of Palma • *Llorenç Mestre,Technical Director of EMAYA* • *Fernando Sampol, Contract Manager, SAMPOL Ingenieria y Obras* • *Jaime Ochogavia, Regional Department of Industry, Balearic Island Government* • *Ernesto Bonnín, Distribution Manager for Balearic Islands, Endesa* • *Miquel Femenia, Head of Mobility, City of Palma*
13:00	Conclusions of the Summer University 2014 and outlook to the Summer University 2015 *Joana Maria Seguí, University of the Balearic Islands, DYN@MO Project Site Evaluation Manager* Handing over of Certificates and Closing *Jordi Llabrés, pro-Vice-Chancellor, Innovation Knowledge Transfer, University of the Balearic Islands* *Gabriel Vallejo, Councillor for Mobility, City of Palma*
13:30	LUNCH

Management and scientific committee:
Joana Maria Seguí, Maria Rosa Martínez, Maurici Ruiz, Jaume Mateu and Felip Morell (DYN@MO *Project* Site Evaluation Managers, Department of Earth Sciences, GITMOT, University of the Balearic Islands).

Organising committee:
Maria Rosa Martínez, Joana Maria Seguí, Maurici Ruiz, Jaume Mateu and Felip Morell (DYN@MO *Project* Site Evaluation Managers, Department of Earth Sciences, GITMOT, University of the Balearic Islands); Maarten van Bemmelen (Eurolocal, DYN@MO *Project* Site Coordinator Palma), Marcel Braun, Bernd Decker (Rupprecht Consult, DYN@MO Project Manager).

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Practical information

Palma is the major city geographically located in the south-west of Mallorca, in the western Mediterranean Sea. Also, Palma is the capital city of the autonomous community of the Balearic Islands in Spain.

How to get to Palma?

Palma has excellent air links with the mainland, the major European cities and the rest of the world. The international airport of Son Sant Joan, 8 km from the city of Palma is the main gateway to the island of Mallorca.

Connection between the airport and Palma

Bus: EMT's line 1 connects Palma airport to the city centre. It leaves from the airport in front of the arrivals building. The trip lasts 20 minutes and you can only pay cash (2.50€). It will bring you to Plaça d'Espanya bus stop, Palma's major hub and intermodal station.

Timetables

Workdays, Saturdays, and holidays (summer: 1 may-31 october) : Average frequency: 15 minutes

- **Aeroport** Earliest departures: 06:00, 06:15, 06:35, 06:55 last departures: 00:15, 00:45, 01:15, 01:45

MORE INFORMATION
http://www.emtpalma.es/EMTPalma/Front/lineas.en.svr?accion=entrada&cod_linea=1

Taxi: Stops are in front of the arrivals building, at the height of the door D.

TAXI

RADIO TAXI
Tel: +34 971 755 440; Fax: +34 971 764 545
Languages: Spanish, Catalan, English, German and Italian

TAXI PALMA RADIO
Tel: +34 971 401 414; Fax: +34 971 401 010
Email: info@taxispalmaradio.com
Languages: Spanish, Catalan, English

Taxis are adapted for the disabled. Payment possible with credit card.

Getting around in Palma:

BUS

EMT (Municipal Transport Company) is the local bus company. Tickets must be purchased for every journey, If you need to transfer buses you must buy another ticket. Bus tickets can be purchased at local kiosks.
Sa Riera: line 8, stop Instituts. Average frequency: 7 m.
University: line 19, stop Edifici Beatriu de Pinós. Average frequency: 16 minutes.

Ordinary rate - urban ticket: 1.50€
Tourist card 10 trips not rechargeable: 10€

MORE INFORMATION

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http://www.emtpalma.es/EMTPalma/Front/listadolineas.ct.svr

The easiest way to get to the **University** is by **metro**. Take the downtown station in Plaça d'Espanya. The travel time is 13 minutes and the metro stops on the campus (near Ramon Llull building).

MORE INFORMATION
http://www.tib.org/portal/en/web/ctm/metro

Universitat de les Illes Balears

www.maps.google.com

Sa Riera: Address: c/ de Miquel dels Sants Oliver 2, Palma

Weather

Mallorca's climate is typically Mediterranean, with warm average temperatures and seasonal rains, the summer period being both hot and dry. The island's rainfall is characterised by its irregularity, varying radically from one year to the next, even reaching the point where there are drought conditions. Most of the rain that falls is concentrated within a few days of precipitation, with some very heavy rains in autumn and lighter rains over the rest of the year.

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Excluding the high mountain areas, the average annual temperature is between 16ºC and 18ºC, with a maximum summer average of 29 to 31ºC and a minimum average winter night-time temperature of 5 to 9ºC.

RECOMMENDED ACCOMODATION

Hotel Jaime III ****
Paseo Mallorca, 14B Palma, 07012
Tel +34 971 725 943
Email: hmjaimeIII@hmhotels.net

Hotel Almudaina ***
Avda. Jaime III, 9, Palma 07012
+34 971 727 340
Email: http://www.hotelalmudaina.com

Hotel Tryp Palma ****
Font y Monteros, 23, Palma, 07003
+34 971 170 200
Email: tryp.palma@melia.com

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Email: info@hotelpalladium.com

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Email: tryp.bellver@melia.com

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