

SUSTAINABLE URBAN MOBILITY ACTION CLUSTER MEETING SOFIA - BULGARIA 27 JUNE 2018

sustainablemobility@eu-smartcities.eu

Agenda

08:30 - 09:00 Registration of participants

09:00 - 09:10 Introduction and objectives

Sustainable Urban Mobility Action Cluster, Henriette VAN EIJL (DG MOVE) & Lutz HEUSER (The-Urban-Institute)

09:10-09.30 Tour de table (expectations from the meeting and from the AC SUM)

Participants

Moderation by Sustainable Urban Mobility Action Cluster, Henriette VAN EIJL (DG MOVE)

09.30 – 10.00 SUM initiatives: past and ongoing activities, do's & don'ts and next steps

Urban Air Mobility (UAM), Vassilis AGOURIDAS (Airbus)

Intelligent Mobility For Energy Transition (IMET), Anna DOMENECH (Nissan)

Electric Vehicles for Smart Cities and Communities (EV4SCC), David BEETON (Urban Foresight)

New Mobility Services (NMS), Edwin MERMANS (Province of Noord-Brabant/ Brabantstad)

10:00 - 10:30 Networking (coffee) break

10.30 – 10.45 EIB Financing and funding opportunities in Bulgaria and neighbouring countries

EIB, Ditmar Dumlich, Head of division for Bulgaria/Romania

10.45 – 11.00 Urban Innovative Actions, opportunities in urban mobility

Urban Innovative Actions, Susana Forjan, Project officer for mobility

11.00 – 11.30 Other funding and financing opportunities available, successful stories

Business Models, Finance and Procurement Action Cluster, Valerio Gori (PwC)

Sustainable Urban Mobility Action Cluster, Carlien Roodink (JIIP & EUC) & Henriette VAN EIJL (DG MOVE)

11:30 – 12:00 Cooperation opportunities with the SCC Lighthouses in mobility

Sharing Cities, Nathan Pierce (Greater London Authority)

12:00 – 13:00 Working groups

Participants

Moderation by Sustainable Urban Mobility Action Cluster

13:00 - 13:15 Final wrap-up

Sustainable Urban Mobility Action Cluster, Henriette VAN-EIJL (DG MOVE), Lutz HEUSER (The-Urban-Institute)





Urban Air Mobility UAM Initiative

Vassilis AGOURIDAS

UAM Initiative Leader

EIP-SCC General Assembly Sofia, 27th June 2018,

SUM Cluster Meeting

WHY

Smart Cities are leading the transformation of mobility

Smart Mobility aims at reduced traffic congestion and CO₂ emissions from mobility.



Smart mobility is the application of **native digital applications**(digital technology and business models) to improve the efficiency and effectiveness of transportation in smart cities.



Mobility Solutions in Smart Cities

Smart Mobility

in

Smart Cities:

WALK.

RIDE.

DRIVE.

FLY.





Typical multimodal mobility solutions in megacities do not consider air mobility

What is required for this picture to become a reality?





UAM technology & business demonstrators

A wide technology ecosystem is already engaged worldwide

Example: AIRBUS

Urban **Air Mobility** Airbus believes that adding the third dimension to multimodal urban transport networks will improve the way we live and offer an alternative to congested megacity. transport systems. To that end, the company is working with a diverse ecosystem to develop partnerships and a portfolio of projects to make urban air mobility a reality. Altiscope Airbus is actively helping shape regulations and future air traffic control requirements to safely integrate electric vertical take-off and landing vehicles in urban skies. The Alfacope project is a simulator for evaluating policy options and operational models for air traffic management systems that can service all forms of nirborne traffic in a wide range of geographies and jurisdictions





Scope of UAM Initiative

The UAM Initiative steers its activities on smart mobility initiatives interfacing, or enabling UAM by addressing topics around the following four (initially, and not limited to) parallel thematic pillars:

- **1. UAM interfaces with public transport** (incl. existing and future setups)
- **2. Mobility as a Service** (e.g. mobility platforms, seamless mobility, cybersecurity, insurance, legal, transport operations)
- **3. Ground infrastructure for UAM** (e.g. real estate stakes and initiatives to support UAM such as dedicated UAM landing pads and integration to multimodal networks hubs, advanced communications-loT)
- **4. ATM/UTM concepts for UAM** and its integration in view of single sky operations







WHO & HOW

Cities and a wide spectrum of stakeholders

Cities are more than **customers** and **users** of UAM solutions; they are **partners**.

- ✓ Cities own and regulate transportation infrastructure
- Cities own and control traffic and transport data
- ✓ Smart cities have the digital infrastructure backbone for managing and sharing real-time traffic and transport data





- ✓ integrated mobility solutions (e.g. ground + air)
- ✓ demonstrable benefits to citizens (e.g. time, comfort, value)
- ✓ socially & environmentally acceptable solutions (e.g. security, noise)

ROADMAP

- Integrated Infrastructure **Planning**
- Citizens Engagement
- Raising

Investments (in Q1, 2020)

First Phase Inform about & Engage on demonstration projects (Q4, 2017 - Q2, 2018) **Second Phase** Define & Prepare demonstration projects (Q2, 2018 - Q1, 2019) **Third Phase** Run & Conclude demonstration projects (Q1-Q4, 2019) **UAM Initiative** Achievements & Way **Dissemination Forward Events**

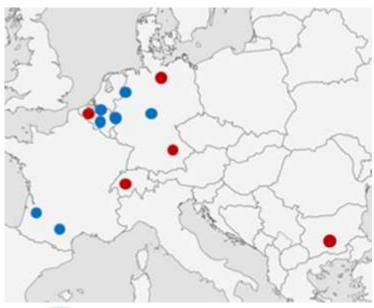
Key Output: Manifestos of Intent Key Output: If GO -Memorandums of Understanding Key Output: **EIP-UAM Initiative Demonstrators** Key Output: **Dissemination & Documentation**



What has happened so far?

Cities engaged until today:

- ✓ Canton of Geneva, 30th May
- ✓ City-State of Hamburg, 7th June
- ✓ City of Ingolstadt and its region (State of Bavaria), 19th June
- ✓ City of Ghent, 21st June
- ...a few other cities/regions to join in soon!





The UAM Initiative approach and characteristics:

- Following a city's mobility need declaration and strong motivation for 'air mobility'...
 - ✓ Put in place an initially-minimum <u>Political &</u> Institutional endorsement, FIRST!
 - ✓ Seek for technology and business partners, AFTER.
- Focus on building 'open' local ecosystems; consortia around a city's mobility need rather than a 'one-place' forum at European level.
 - ✓ National and international partners to support innovation/business acceleration, best practice dissemination within Europe
 - ✓ Institutional stakeholders and Investors involved early and participate also as 'partners'
- Leverage on 'critical mass' built from cities signed up
 - √ cross-fertilisation among cities and 'influence'
 - ✓ launch of **UIC**² **U**AM Initiative **C**ities **C**ommunity (launched here in Sofia SHAPE session)

UAM Initiative: 'SHAPE' sessions

EXPLORE

See and learn what's next

The **Explore** Zone will equip you with vital knowledge to move forward with your projects.

Attendees have open access to the Showcase Pods, Knowledge Wall, Speakers' Corner and Community Meetup Zone.

SHAPE

Shape your project and action plans

The **Shape** thematic working groups will deepen your knowledge and give you insights from experts.

Attendees can reserve a seat in advance to participate to working groups.

DEAL

Create relations and opportunities

The **Deal** discussions give you the opportunity to create relations within your financial counterpart.

Attendees can qualify by creating an account on the EIP-SCC Matchmaking Platform.

Introducing Air Mobility in Urban Environments:

What challenges and opportunities for Infrastructure Planning and Citizens Active Involvement?

@ 14:00-16:00

EIP-UAM Initiative

Get to know the mobility demonstration projects of the engaged European Cities

@16:20-18:20





Intelligent Mobility for Energy Transition

Eunice Ribeiro, UBIWHERE

Creating local innovation ecosystems to support pilots demonstrating how Intelligent Mobility can contribute to energy transition.





WHY

Challenges of the future

- Changing customer, ownership paradigms
- Digitalisation

Intelligent
Mobility for
Energy
Transition

Energy Challenges

Growing energy

Growing energy

Growing energy

Growing energy

Gration of RES and generation

Mobility Challenges

• Fossil fuels dependency

• Congestion park

• Pollution & noise



WHO

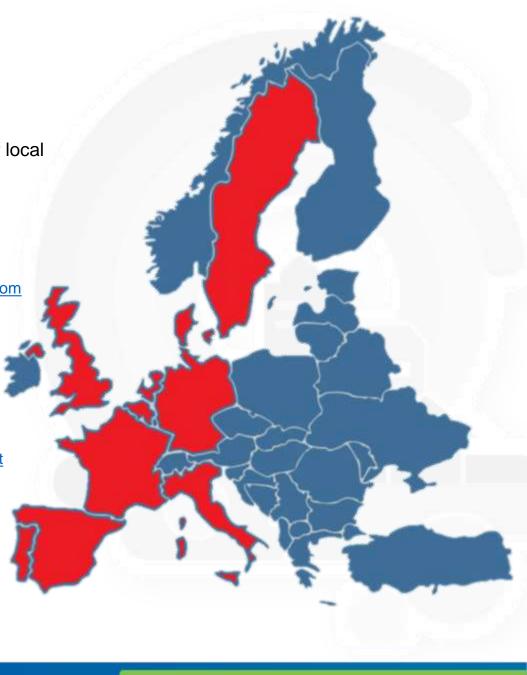
The Zero Emissions Ambassadors

Neutral stakeholders fostering the creation of local ecosystems:

- UK Jason Warwick <u>jason.warwick@ui-uk.city</u>
- SP Carlota Cruz ccruz@evectra.es
- DE Hermann Mehlig <u>hermann.mehlig@pwc.com</u>
- BE/NL Marie Latour <u>MLATOUR@zabala.eu</u>
- SE Marcus Grunerwald marcus@greenforestadvisors.com
- PT Eunice Ribeiro eribeiro@ubiwhere.com
- FR Ramón Vallés <u>rvalles@zabala.fr</u>
- IT Valerio Siniscalco <u>valerio.siniscalco@nhp.it</u>
- DK Local ecosystem well established

And growing!





HOW

PHASE I - "Going beyond zero emissions" Focus on intelligent power and integration

- New ownership and business models
- Innovative storage systems using second life of batteries as xStorage
- New mobility and energy services (eg. V2G, energy management, integration of PV)

PHASE II ('19-'20) – "From zero emissions to zero fatalities" Adding intelligent driving.



ROADMAP

Demostrators are being launched in different European cities.

networking with public and private sector in their country to get new stakeholders on board.

September – December '17

January – March '18

April '18 - December '19

LAUNCH team creation and public presentations CONSOLIDATION
Networking,
benchmarking,
pilots definition

PILOTS
Deals with cities,
kick off pilots

Phase 1 closed: 10 pilots initiated

Kick off phase 2

Pilots launched:

- Growsmarter pilot in SP
- E4future in UK



Roadmap to be updated with further details during General Assembly

OUR ACTIONS AT THE GENERAL ASSEMBLY

All days - come to visit us at the Sustainable Mobility Action Cluster stand

27th June – Shape sessions

14:00 - 16:00h - Buildings and Sustainable Mobility

16:30 – 18:00h - Paving the way for Intelligent Mobility in the Energy Transition – South/North Europe

28th June - Plenary session

11:00 – 12:00 Contribution to panel discussion with Commissioner Cañete – how will intelligent mobility support sustainable districts.

15:00 – 16:00 Pitch on IMET initiative





EV4SCC

David Beeton, Urban Foresight



Working to create the world's largest marketplace for smart electric mobility solutions



Set-up and chaired by smart cities consultancy
Urban Foresight (contact: david.beeton@urbanforesight.org)



Officially launched by Commissioner Bulc in January 2016



7 marketplace events held to date



Electric vehicles make cities smarter and more sustainable





WORKING GROUPS



e-freight: sharing knowledge on e-freight, identifying e-freight solutions and ways to replicate them in interested cities.



Mette Hoe
Capital Region of Denmark



e-bus: general goal of supporting cities replacing their ICE buses with electric buses

Umberto Guida UITP



e-fleet: supporting the deployment of e-vehicles for fleet, public and private fleet and in particular for car sharing, finding new types of business models, funding and financing tools.

Lutz Heuser
The Urban Institute



e-Planning and smart charging: supporting public authorities to plan e-mobility and integrate it in their SUMP, and integrating smart charging (Vehicle to City concept).

Francoise Guaspare Ile de France Region



e-CAVs: helping cities to develop infrastructure, policy frameworks and business models for connected and autonomous EVs.

Paul Blakeman Urban Foresight



WHO

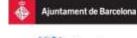
partners



countries













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MOVE ABOUT

























Cities & regions

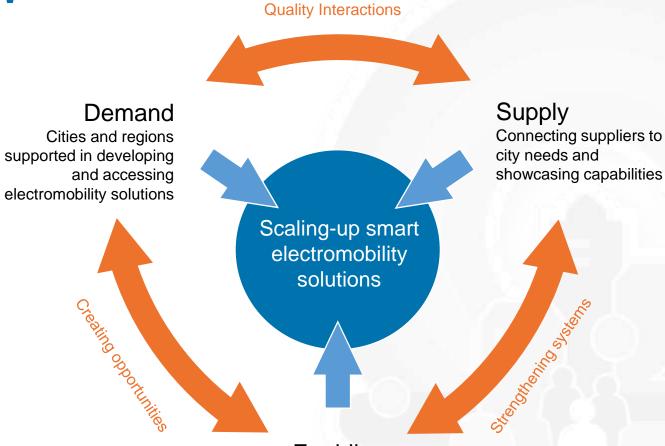
Govt. agencies & **PPPs**

Global companies

SMEs

Research

HOW



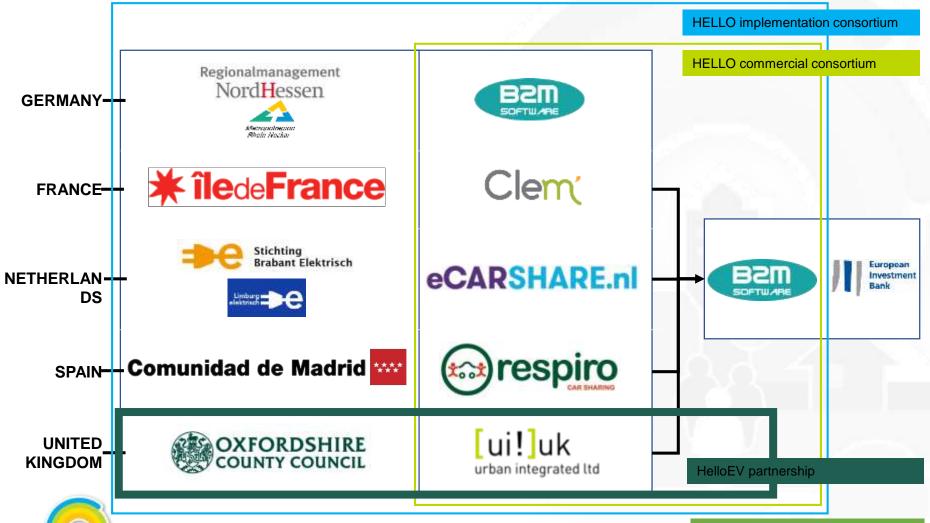


Supporting the development of policy, infrastructure, business models, financing and innovative pilots



2000 Shared EVs in 5 years

EIP-SCC





ROADMAP



cities from across Europe to join the platform

% SME participation in the EV4SCC platform

% increase in the number of active collaborations between EV4SCC partners.

new projects which will focus on one of the key market segments.

NEXT EV4SCC MARKETPLACE EVENT



http://gomobility.eus/en/

27-28th November 2018
San Sebastian, Basque Country, Spain

For more information contact Lucia Gonzales, Edenway lucia.gonzalez@edenwaygroup.com We are looking for up to 5 cities to present their needs & opportunities





New Mobility Services

Edwin Mermans & Tamara Goldsteen



WHY

- Today's cities face challenges in terms of congestion, lack of space, growing population, air quality, noise, liveability, social inclusion, health, economic development and creation of jobs.
- Large-scale deployment of New Mobility Services (NMS) is part of the solution in dealing with these challenges. C-ITS, CCAM, MaaS, shared mobility concepts and smart bicycle solutions can be a game changer in how we use our public space.
- Specially small- and medium sized cities (50.000 400.000 inhabitants) will profit more from embracing NMS.

Challenges:

- Bringing theory to practice.
- All stakeholders have to be brought together in a learning-by-doing multi stakeholder ecosystem.
- Interoperability and creating a sustainable business model. Involving the right industrial partners.
- Diversity between urban areas in Europe is large. Implementation always needs to be adapted to local circumstances
- User involvement is crucial. Adoption of user centric design models is required in the 'learning by doing' concepts.
- Role of private and public responsibilities will change in the domain of mobility during this transition.

Mobility / spatial

- Improve accessibility of cities for citizens and transport of goods and decrease congestion in the urban context.
- Improve liveability and the quality of the spatial domain.
- More efficient use of space in the urban context.
- Offer cost effective solutions both for individual as well as collective mobility needs.

Climate / environment

 Be sustainable in the view of environmental issues: Decrease emission of CO2 to achieve the Paris climate goals and improve air quality in cities with reduced concentrations of PM2,5, NOx and O3.

Social / health

- Improve health of citizens because of cleaner air and increased physical exercise because of shift to walking and biking.
- Boost social inclusion and quality of life because of improved mobility for vulnerable citizens such as disabled persons and older adults.

Economical

- Increase economical opportunities in cities because of better accessibility and higher quality of the spatial domain.
- Create new business opportunities for the development of New Mobility Services, tools and products.
- Be sustainable in the view of a sound business model and business case and use if needed most advanced technology



HOW

- The essence of this initiative is to organise a 'learning by doing' approach to demonstrate and deploy NMS. A multi-helix learning ecosystem will be built in which relevant stakeholders are involved from governments, research, industry and civil society. Real partnership is crucial and all partners will bring and take.
- Optimal use will be made of existing platforms like the MaaS alliance, C-ITS Deployment platform, existing European projects and databases such as the ITS observatory.
- The added value is in:
- Facilitate testing and piloting: supply of data learning from pilots: decide which data are needed, who is the owner of the data, what are privacy issues and development of business cases and models.
- Offer living labs to make the step from research to deployment.
- Facilitate the involvement of users through user centric design.
- · Facilitate development of legislation.
- Knowledge sharing and make an inventory of best practices and lessons learned.
- Bring economies of scale and to offer a market place for suppliers of NMS



WHO

- Coordination: Province of Noord-Brabant / BrabantStad (NL):
- Local and regional governments
- Small and medium sized cities (50.000 400.000 inhabitants) / small regions with lower urbanisation level
- Larger cities with skills and experience
- National governments
- Ministries of infrastructure, environment and Mobility/traffic / National Highway Authorities.
- Regulation bodies (e.g. vehicle type approval authorities)
- Industry
- Technology and service providers / Car manufacturers (OEM's) / SME
- 1tier-suppliers / Public transport companies / IT, mapping and semiconductor companies / Data connectivity parties
- MaaS providers



WHO

- Insurance companies
- Research and knowledge institutes
- Universities / Universities of Applied Sciences / Research institutes
- Civil Society end users.
- Associations of car drivers like ANWB and FIA / Road operators / Y4PT, EDF, ECF, EPF, GE Platform /
- Associations from bicycle riders and/or pedestrians / of citizens in cities / of older adults /
- Trade unions /Organisations for sustainable mobility
- Financers
- Investors like banks, pension funds or trusts and regional development agencies. / European Investment Bank
- Impact investors / European subsidies
- Network organisations:
- ERTICO / MaaS Alliance / Polis / Eurocities /AER Assembly of European Regions



ROADMAP

- Continuously
- Mapping of existing alliances, platforms, networks and projects, including products (like roadmaps, white papers, guidelines, etc.) of these groups of NMS in urban context.
- Dissemination of the story and mission of the NMS initiative to recruit potential partners via our networks, existing projects, conferences, etc.
- Create partnership, build the community and trust between participants in the process of developing an agenda for collective impact. Decide about the focus for the pilots and deployment in workgroups
- February 2018
- 1st partner meeting in Brussels February 21st at House of Dutch Provinces, Brussels
- June 2018
- 2nd partner meeting.
- September May 2019
- Organise marketplace. With support from the investment consultants look for financing and find investors for the deployment and pilot projects. Partner meetings in November, Feb 2019.
- End of 2019 / early 2020
- Kick off and implementation of a range of projects for pilots and deployment all over Europe.



Six working groups

Passenger demand driven first/last mile solutions

Parking solutions

Intelligent Speed Adaptation

Multi-modal Transport & Logistics in Smart City Context

Building the Traffic Management centre of the future

Changing roles / business impact / regulation / governance



Passenger demand driven first & last mile solutions

How can a last mile, on demand solution, (vehicle with driver, bikes, shared cars) provide links to and from locations such as railway stations, hospitals and bus/tram stops?



How can the solution support social and environmental objectives by being appealing, and integrating well with public transport and ticketing – being more attractive then car?

Let's deliver concrete pilot projects to test:

- Practicalities,
- Geofencing,
- Commercial risk and revenue points,
- Software,
- The benefits and user acceptance.

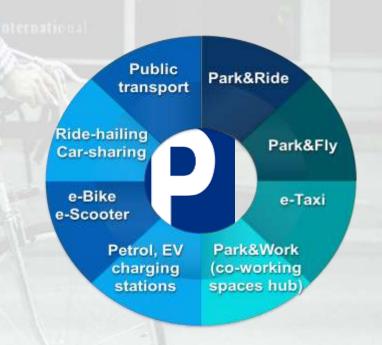


Parking solutions

- Coordinator: Marek Stawinski
- Focus: Smart Parking for City projects
- finding pilot cities
- partners:
- public and private transport services
 providers to integrate with parking data
 platform
- automotive sector (data-driven parking management as an enabler of EVs, AVs adoption)
- defining synergy with Multimodal
 Transport workgroup, IMET and EV4SCC initiatives

MaaS perspective

Smart Parking Integrated with Partners' Data Contributes to Sustainable, Seamless Mobility



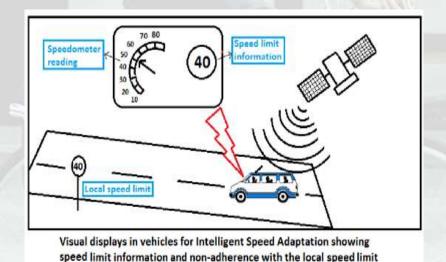
Intelligent Speed Adaptation - ISA

ISA (Intelligent Speed Assistance) is a stepping stone towards automated driving

ISA is a system that can be implemented **NOW** and save lives **NOW**

The central question to be addressed by the WG ISA is:

How can we support the large scale implementation of ISA systems



Multi-modal Transport & Logistics in Smart City Context

Aim: bringing new solutions and new services that will contribute to low-carbon, more circular and more cost-effective strategies improving the environment of Smart Cities and the lives of its citizens.

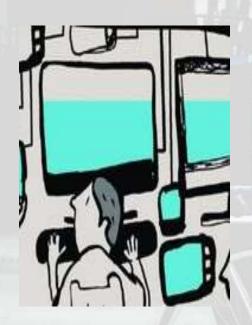
Future solutions and services:

- Combined Transport and Passenger logistics
- Multi-modal Freight distribution
- Combined services: Passenger mobility and E-commerce/E-fullfilment services
- Last Mile solutions, especially with regard to fresh logistics in urban areas

Approach:

- silo-breaking: between mobility and transport and logistic stakeholders
- co-creative design processes with the whole spectrum of stakeholders

Building the traffic Management centre of the future









Changing roles and business models, regulation and governance

...whats'up?

Mobility Transitions
Changing roles of agents and stakeholders
Citizen awareness and empowerment
Disruptive innovative solutions
Outdated and rigid regulations
Governance issue





Tamara Goldsteen – t.goldsteen@helmond.nl Edwin Mermans – emermans@brabant.nl Twitter: @NewMobilityServ



Sustainable Urban Mobility

New Mobility Services

"Facilitating deployment of seamless door-to-door mobility services"



CONTACTS

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Intelligent Mobility for Energy Transition	Anna Domenech	Nissan Europe	anna.domenechabella@nmisa.es
Urban Air Mobility	Vassilis AGOURIDAS	Airbus	vassilis.agouridas@airbus.com

