Market Place of the European Innovation Partnership on Smart Cities and Communities

AC SUM – After Summer Webinar: What is planned in the months to come?
25 August 2016
• No voice interaction allowed during the presentations

• You can write your questions in the chat specifying the speaker you want to address

• We'll forward the questions in the Question & Answer session at the end

• This webinar will be recorded and published in the EIP SCC website
14.00 Welcome and introductions: Ivo Cré (Polis)
14.05 Update from the Electro-mobility Initiative, Karine Sbirrazzuoli (Urban Foresight)
14.20 Update from the New Mobility Services Initiative, Peter Staelens (EUROCITIES, on behalf of the OPTICITIES consortium)
14.35 Q&A
14.40 The ESPRESSO Smart City indicator platform – Sabina Dimitriu and Dorota Kamrowska-Zaluska (ISOCARP – ESPRESSO project partner)
14.55 Overview of upcoming events and next steps
EV4SCC: SCALING UP SMART ELECTROMOBILITY

25 August 2016 | EIP SCC SUM Action Cluster | Summer Webinar

Karine Sbirrazzuoli
Head of European Projects and Partnerships
COORDINATOR

URBAN FORESIGHT®

RESEARCH & ANALYSIS

MOBILITY

ENERGY

ENVIRONMENT & COMMUNITIES

ECONOMIC DEVELOPMENT

INFRASTRUCTURE & INNOVATION

STRATEGY & FORESIGHT

PROJECTS

FUTURE CITY SHAPERS

Smart and sustainable Transformation of Cities, Communities & Industry
COLLABORATIVE PLATFORM

75 partners
19 countries
19 cities & regions
= Dedicated community
UNIQUE PLATFORM

- 25% Cities & Regions
- 25% SMEs & Consultancies
- 14% Private Companies
- 14% Government Agencies & PPPs
- 12% Transport Services Providers
- 5% Research organisations
- 5% NGOs, EU projects & Industrial organisations
CONNECTING THE “DOTS”

- =demand
- =supply

Cities & Regions
Solutions providers
Financing

EV4SCC
REPLICATE SOLUTIONS

- E-bus
- E-fleet
- E-freight
- E-mobility planning & smart charging

Other actions:
- Give the lead to cities and regions
- Address the barriers and find ways to overcome them
- Find the right partners
- Unlock financing
RECENT ACTIVITIES

- **E-bus**: next meeting planned at the Gothenburg Electro-mobility in Smart Cities event (21-22 September). The objective is to gain support from the EU for the deployment of electric buses.

- **E-fleet**: discussions with the European Investment Bank (EIB) about the possibility for the deployment 2500 Shared EVs in 5 countries.

- **E-freight**: set up a group of freight operators together with cities to sign a **declaration to commit to the deployment e-freight**. This activity is led by Copenhagen Electric (Region) and the FREVUE team.

- **E-mobility planning and smart charging**: joint application to MG4.2017 led by Region Ile de France.
NEWS

New partners

- Municipality of Reggio Emilia
- Milan Agency for Mobility, Environment and Territory
- University of Valencia (ITRIC-LISITT Research group)

New collaboration

- The EV100 Leadership Initiative, by Climate Group
JOIN & FOLLOW US!
#EV4SCC
https://eu-smartcities.eu/content/electromobility
New Mobility Services

The Initiative will look into two reinforcing strands of action in relation to New Mobility Services:

- Replication and cooperation between regional innovation clusters, providing test beds for innovation and willing to share knowledge and to support replication (Championed with Luxinnovation, and cooperating with up to 5 other regional innovation clusters).

- Increase the uptake of specific technologies and services that currently prove their success in EU research (OPTICITIES and MYWAY), seek replication and cooperate for large-scale roll out (with an involvement of at least 10 cities).
An innovation project coordinated by Grand Lyon

- With 6 European cities: Lyon, Madrid, Birmingham, Göteborg, Turin, Wroclaw
- Major ITS stakeholders: Spie, Vedecom (Telecom Paris, PSA, Renault), Cityway, Hacon, Icca, Neurosoft, Chalmers, Polito, CNRS, …
- The most important European networks on urban mobility and ITS: EUROCITIES, ERTICO, UITP
- 3 years
- 13 M€ budget funded by the European Commission (FP7) and the 25 partners
## Planning

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<th>YEAR 1</th>
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<td><strong>Technical development:</strong></td>
<td>Data creation and use</td>
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<td><strong>Management</strong></td>
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Objectives

- Set up **high level services for travellers and urban logistics**, addressing user needs and urban mobility public policy,

- Support mobility policy and an open market for business development around urban ITS, through a **contractual framework between public – private actors**

- Define standard and architecture to foster **interoperability among cities and among travel modes**
• Set up a **complete mobility data store in European cities** (all modes, maximum coverage of the area, different time scales: historical, theoretical, real time, predictive data) **controlled by public actor**

• **Develop innovative services, managed where relevant** (e.g. information services) **by private sector or by public actors** (traffic management) using the urban mobility data store, with an **adapted contractual framework**
Main innovations planned within OPTICITIES

- **New monitoring systems** for urban freight, multimodal data in large cities, road works
- **Interoperability of traveller information apps** with various urban data sets: different apps working in different environment - 1st world trial
- **Continuity of services between traveller mobility apps and in car GPS**: test in Lyon – 1st world trial
- Development of **urban multimodal GPS**
- Development of **real time multimodal management and dynamic car pooling**
- Integration into traffic management systems of **1h traffic prediction**
- Development of high level **freight information services**
What has been achieved so far?

OPTICITIES data categorization proposal completed
- Datasets identified for relevant use cases/services
- Multilayered approach responding to data life cycles
What has been achieved so far?

Contribution to **CEN & ISO standardisation process**

- extension of GDF to connect public transport and road infrastructure
- use of CEN (European) standard at ISO level (Transmodel)
- A common choice of TRIAS between OPTICITIES and CEN
What has been achieved so far?

- The integration of **one hour traffic prediction modules** into the traffic control systems of Grand Lyon and Birmingham is currently in trial phase, but the first results are promising.

- The **public transport incident management** tool of CRTM In Madrid is fully operational and capable of generating alerts and notifications in case of delays and incidents.

- Gothenburg developed NYSTART 2.0, a **road works management tool** which is used to approve, monitor and communicate road works. Detailed information on the different construction sites is included by the contractors, in the future it will also be possible for citizens, local businesses and freight operators to add and use data.

- CSI Piemonte developed an **open source map of the transport network** in Torino, which uses data from various transport services and online portals to monitor and analyse the accessibility, network performance and intermodal transfer points of the metropolitan area.
What has been achieved so far?

- Making use of the OPTICITIES Multimodal Urban Database model and architecture, Hacon and Cityway developed a common architecture for the multimodal urban navigator in Grand Lyon, Gothenburg, Madrid and Torino.

- Vedecom developed a functional interface that allows for synchronisation with in-car navigation systems. In the case of Grand Lyon and Torino, the multimodal urban navigator can also offer real-time car pooling services.

- The tests of the freight navigator for dangerous goods and oversized vehicles in Wroclaw, the integrated public transport prioritisation system in Gothenburg and the collection of road transport data in Lyon have also been concluded.
Continuity of services between traveller mobility apps and in car GPS
GREAT AMBITIONS

OPTICITIES is aiming high, intending to develop and test interoperable ITS solutions in six different cities in order to provide urban citizens with the best possible journey conditions and to optimize urban logistics operations.

OPTICITIES gathers 25 partners from across Europe (6 cities, service providers, car industry, research laboratories and major European networks) and will strive to pave the way towards smart urban mobility.
Road works data collection (Deployment Guidelines)

The need for traffic information is vital for operation of a well functioning road network. An important fact that is often overlooked is that to provide good traffic information to road users you need to have top notch roadworks information. This is a problem in many cities as the roadwork information is quite often of a limited quality or even none existent.

The city of Gothenburg, within the OPTICITIES project, has developed the Road Works management tool but also the work processes used within the organization.

This document describes how they have dealt with these challenges, the system support that was developed and deployed as well as some brief descriptions of the new practices adopted.

Download the document

Download button
## Deployment guidelines

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<td>D114</td>
<td>Deployment guidelines for road works data collection</td>
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<tr>
<td>D116</td>
<td>Deployment guidelines for new tools for freight data monitoring</td>
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<tr>
<td>D118</td>
<td>Deployment guidelines for social media/web2.0 use to increase travel information quality and for setting up a real time car pooling service</td>
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<td>D121</td>
<td>Report for contractual arrangements between public and private stakeholders for mobility data availability</td>
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<td>D212</td>
<td>OPTICITIES Multimodal Urban Mobility Database model and architecture</td>
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<td>D213</td>
<td>Standardised data conversion (prototype development)</td>
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<td>D221</td>
<td>OPTICITIES Urban Mobility Portal design and interface specification</td>
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<td>D312</td>
<td>Deployment guidelines for traffic prediction in Traffic Management Centres</td>
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<td>D322</td>
<td>Deployment guidelines for multimodal mobility management</td>
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<td>D323</td>
<td>Assessment methodology for Transport policies in urban areas</td>
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<td>D332</td>
<td>Deployment guidelines for soft modes priority</td>
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<td>D412</td>
<td>Deployment guidelines for multimodal real-time urban navigator</td>
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<td>D422</td>
<td>Deployment guidelines for interfaces with in-car navigation systems</td>
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<td>Deployment guidelines for real-time car pooling</td>
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<td>D542</td>
<td>Deployment Guidelines for Freight Management within urban environment</td>
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<td>D552</td>
<td>Deployment guidelines for urban freight navigator tool integrator</td>
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<tr>
<td>D721</td>
<td>Guidelines for the design of multimodal navigator for passengers and freight and for the Decision Support Tool, and HMI</td>
</tr>
<tr>
<td>D751</td>
<td>Guidelines to make ready to market the technical tools and finalisation of KPIs</td>
</tr>
</tbody>
</table>
More information: social media

Road Data Collection in Grand Lyon

Watch how Grand Lyon makes use of the VIAPIX® system to collect up-to-date information on the road network, including signage and markings. By combining an innovative acquisition device with powerful processing software, the

road data collection in Grand Lyon.

Contribute to the EC consultation on multimodal travel services, download the presentations from the stakeholder workshops.

In September DG MOVE initiated a public consultation in view of preparing priority action provision of EU-wide multimodal travel information services’ of the ITS Directive. The consultation has just been extended... more

Tweet

OPTICITIES @OPTICITIES 6 mins

Watch how Grand Lyon makes use of the VIAPIX® system to collect up-to-date information on the road network: bit.ly/1Z7GDCQ

Photos & videos

Road Data Collection in Grand Lyon

Grand Lyon makes use of the VIAPIX® system to collect up-to-date information on the road network, including signage and markings. By combining an innovative
Coming up in September & October

• New deployment guidelines

• OPTICITIES Handbook

• Final project video

• Final events Brussels (incl. debate in EP on 11/10 and technical workshop on 12/10), study visits in Torino (date tbc) Gothenburg (27/10)

• Events in the framework of the Smart Cities EIP Action Cluster on Urban Mobility: Prague (22/09)
Sign the manifesto!

Market Place
of the European Innovation Partnership on
Smart Cities and Communities

Scaling-up new mobility services in Europe
Partner’s commitment to action
Peter Staelens
Project Coordinator EUROCITIES
Peter.staelens@eurocities.eu

www.opticities.com

Get more information on OPTICITIES partners and activities:

- twitter.com/opticities
- OPTICITIES group on LinkedIn
- www.facebook.com/OPTICITIES
OPTICITIES events

- 16-22 September (tbc): Torino study visit
- 28-29 September: Final conference, Lyon
- 10-11 October, Final high level event, Brussels
- 17-19 October Tampere workshop
Webinar on Sustainable Urban Mobility Initiatives
25th of August 2016

SMART CITY INDICATORS PLATFORM

ESPRESSO
A systEmic Standardisation apPRoach to Empower Smart citieS and cOmmunties

Sabina Dimitriu, Dorota Kamrowska-Zaluska, ISOCARP

This project has received funding from the European Union’s Horizon 2020 programme for research, technological development and demonstration under grant agreement No 691720
The road to smart cities

A Smart City is first and foremost a city that understands its needs and addresses those in an intelligent manner, adopting a „system of systems“ view to adapt to changes.

On the path to „becoming Smart“, cities have a lot of key ingredients to consider: Leadership, Vision, Data, Participation, Communication, Innovation and Standards.

ESPRESSO-
A systEmic Standardisation apPRoach to Empower Smart citieS and cOmmunties

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Why do we need standards?

Standards as the building blocks which support the different systems coming together, creating:

– A common understanding
– Shared values and language
– The possibility to track performance and progress
– Confidence in smart solutions
– Efficiency and effectiveness in investments
– An instrument to better communicate the city vision to investors and citizens alike

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...to measure performance.

It is crucial to specify a **standardized integrated framework** which can be used to build Smart City Solutions more scalable, replicable and efficient.

**ESPRESSO is setting up a City Information and Indicator Platform**, to give cities the possibility to measure their performance while implementing smart city strategies and solutions.
ESPRESSO
City Information and Indicator Platform

- is not about creating the new set of indicators but capitalizing on the waste knowledge which is available
- not only a portal to collect and share data required for indicator definition; also a tool for city self-assessment.

- online tools where cities easily can test the maturity of their strategies for creating “smart places” and smart urban development through the proposition of innovative and effective services at urban scale.

This project has received funding from the European Union’s Horizon 2020 programme for research, technological development and demonstration under grant agreement No 691720.
Measuring Smart City performance - application of standards by cities

– application of standards by cities is still in early stage;
– though cities across the world working closely with leading standards authorities;
– first step on this way is the implementation and use of indicators to measure level of application of smart city initiatives and general “smartness” of the city

– criteria for indicators selection:
  • open
  • relevant
  • available
  • measurable
  • independent
  • achievable
  • simple
  • timely

ESPRESSO - A systEmic Standardisation apPRoach to Empower Smart citieS and cOmmunities

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Multi-criteria analysis of different smart development dimensions

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Indicators

Indicators for the platform are divided into two main categories:

1) **Profile indicators** allow to compare on the basis of objective data, e.g. population features, economic factors or climate;

2) **Key performance indicators** (under the 9 Sectorial Systems);
   - 34 core indicators;
   - 18 support indicators.

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Profile indicators

1. City population
2. Population dependency ratio
3. Density (per square kilometre)
4. Minimum wage (Euro, yearly)
5. Value of municipality's GDP per capita (Euro)*
6. Climate**

*if not available please use the immediate upper level date available

**https://www.britannica.com/place/Europe/Land#toc34547

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### KPIs descriptions – example

<table>
<thead>
<tr>
<th>Indicators category</th>
<th>Smart Education: societal demands and future needs data literacy, innovative teaching systems, e-learning, institutional integration</th>
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<tbody>
<tr>
<td>Indicator title</td>
<td>Percentage of students/pupils with classroom access to ICT facilities</td>
</tr>
<tr>
<td>Core/support indicators</td>
<td>Core indicator</td>
</tr>
<tr>
<td>Indicator definition</td>
<td>Students/pupils with classroom access to ICT facilities to total students/pupils enrolled in schools *100%</td>
</tr>
<tr>
<td>Indicator unit</td>
<td>%</td>
</tr>
<tr>
<td>Source</td>
<td>UNECE–ITU standard, ITU-T ICT</td>
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</table>

This project has received funding from the European Union’s Horizon 2020 programme for research, technological development and demonstration under grant agreement No 691720.
Q &A

In order to set up the self-assessment, we invite you today to share with us your opinions:

1. Are the indicator sets useful to measure cities performance? Complete?

2. Would the cities be willing to perform the self-assessment in exchange for their own Smart City Profile and scoring reflected on the ESPRESSO Atlas?

3. Would they be interested in using this set of indicators, open and free, to assess their strategies or the degree of implementation of Smart City solutions?

ESPRESSO-
A systEmic Standardisation apPRoach to Empower Smart citieS and cOmmunities

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Get involved

http://espresso-project.eu/

https://www.linkedin.com/groups/7034635

sabina.dimitriu@urbasofia.eu
dzaluska@pg.gda.pl
Technical Assistance

- **ELENA (- Transport) (2016 – €5m; 2017 – €10m)**
  - Scope: Support significant bankable investments in urban transport and mobility (e.g. use of innovative solutions such as alternative fuel vehicles)
  - “Investments to introduce at a wide scale new, more energy-efficient transport and mobility measures in any modes in urban areas.”
  - Final beneficiaries: Public and private project promoters – can be “aggregators”
  - Two-step process including a preliminary application and a final application
• Fast development, commercial take-up and/or wide deployment of sustainable innovative solutions
• Time to initial market take-up no later than 3 years
• Leveraging more private investment into research and/or innovation.
• Addressing transnational value-chains and/or EU-wide or global markets.
Urban Innovation Actions

- €50M, 10 projects
- Single city projects
- Information available from September onwards
- Call open November 2016
- sustainable urban mobility, the circular economy and the integration of migrants and refugees as topics...
SCC-1-2016-2017: Smart Cities and Communities lighthouse projects

- To demonstrate solutions at district scale integrating smart buildings, smart grids (electricity, district heating, telecom, water, etc.), energy storage, electric vehicles and smart charging infrastructures, using the latest generation ICT platforms (and infrastructure) based on open specifications. This should in turn help to manage a successful transformation towards intelligent, user-driven and demand-oriented city infrastructures and services.
- This should be accompanied by energy efficiency measures and the use of very high shares of renewables at the level of districts.
- Limited focus on New Mobility Services and ITS.
H2020 opportunities new mobility services

- ICT-11-2017: Collective Awareness Platforms for Sustainability and Social Innovation
- ART-07-2017: Full-scale demonstration of urban road transport automation
- MG-8.4-2017: Improving accessibility, inclusive mobility and equity: new tools and business models for public transport in prioritised areas
- MG-4.1-2017: Increasing the take up and scale-up of innovative solutions to achieve sustainable mobility in urban areas
- CEF: Programme Support Action (PSA) for a European Framework Architecture for Intelligent Transport Services (ITS)
H2020 opportunities Electromobility

- MG-4.2-2017: Supporting 'smart electric mobility' in cities
- GV-08-2017: Electrified urban commercial vehicles integration with fast charging infrastructure
- GV-10-2017: Demonstration (pilots) for integration of electrified L-category vehicles in the urban transport system
Meetings

- 22 September, Electromobility in Smart Cities, Göteborg
- 22 September, Prague, Smart urban mobility: opportunities for cooperation and finance
- 23 September, Brussels, SCC-2017 info day
- 29 September, Gdynia, EIP-SCC outreach event at CIVITAS Forum (+eBus procurement drafting session)
- EARPA FORM FORUM, Brussels, 19 October
- EIP SCC General Assembly and Initiative meetings, Brussels, 23 November
Thank you!

http://eu-smartcities.eu