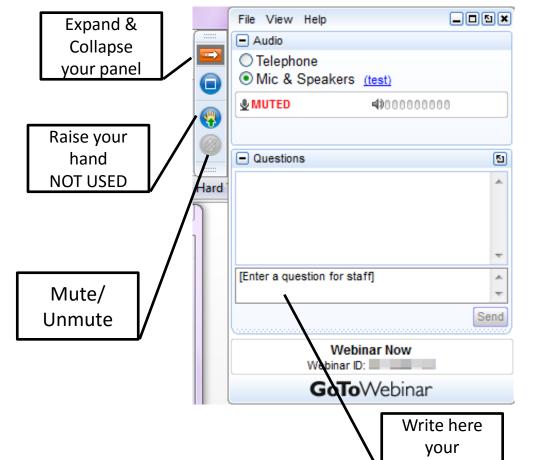


### Market Place of the European Innovation Partnership on Smart Cities and Communities

AC SUM – After Summer Webinar: What is planned in the months to come? 25 August 2016



questions

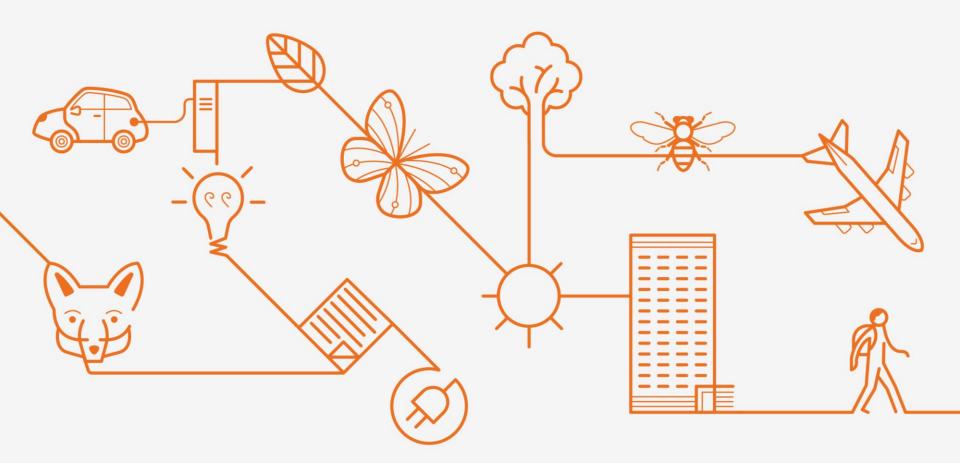
 No voice interaction allowed during the presentations

Webinar: Rules of the game

- 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

### Agenda

- 14.00 Welcome and introductions: Ivo Cré (Polis)
- 14.05 Update from the <u>Electro-mobility</u> Initiative, Karine Sbirrazzuoli (Urban Foresight)
- **14.20** Update from the <u>New Mobility Services</u> Initiative, **Peter Staelens** (EUROCITIES, on behalf of the OPTICITIES consortium)
- **14.35** Q&A
- 14.40 The <u>ESPRESSO</u> 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

U R B A N F O R E S I G H T

Karine Sbirrazzuoli Head of European Projects and Partnerships

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

#### **COORDINATOR URBAN FORESIGHT**® RESEARCH STRATEGY PROJECTS & ANALYSIS & FORESIGHT MOBILITY ENERGY **ENVIRONMENT & COMMUNITIES** Smart and sustainable ECONOMIC DEVELOPMENT Transformation of Cities. **INFRASTRUCTURE & INNOVATION** Communities & Industry

#### FUTURE CITY SHAPERS

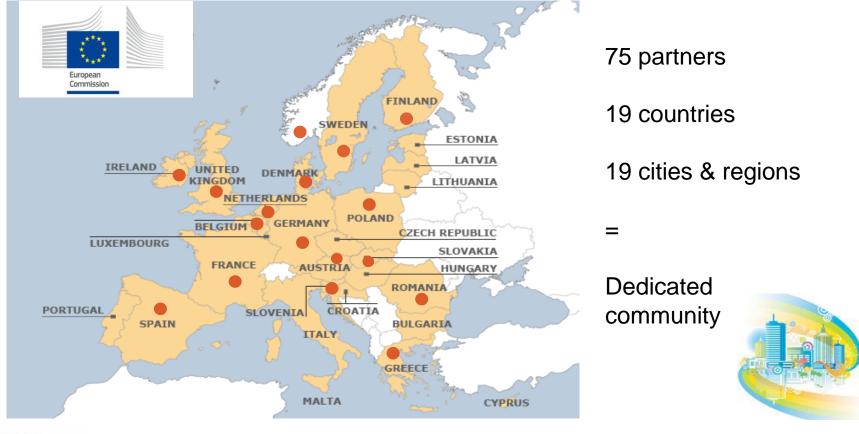




EV4SCC

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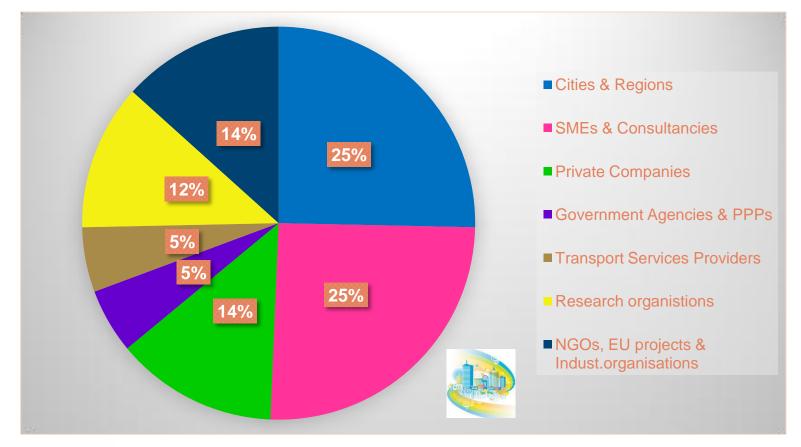
### COLLABORATIVE PLATFORM



U R B A N F O R E S I G H T



## UNIQUE PLATFORM

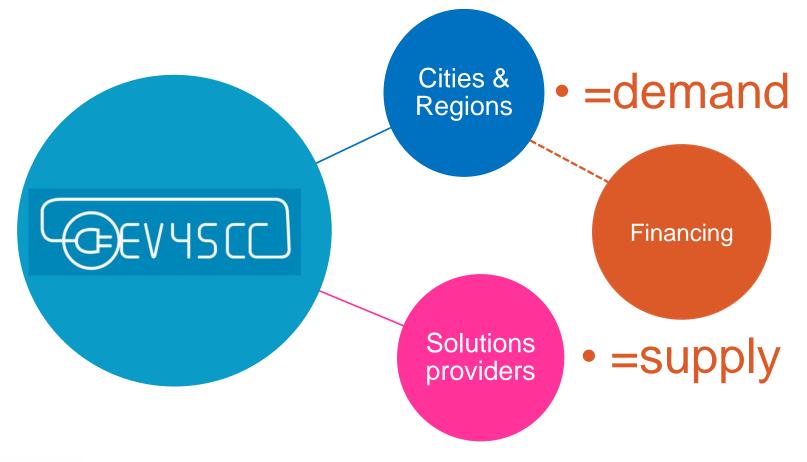


U R B A N F O R E S I G H T

PRESENTATION TITLE 7



# CONNECTING THE "DOTS"





EV4SCC 8



### ELECTROMOBILITY MARKET PLACE





# **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

GHT







# **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 IIe de France



#### PRESENTATION TITLE 11



### NEWS

#### **New partners**

- Municipality of Reggio Emilia
- Milan Agency for Mobility, Environment and Territory

COMUNE DI

REGGIO EMILIA

University of Valencia (ITRIC-LISITT Research group)

#### **New collaboration**

The EV100 Leadership Initiative, by Climate Group



Reggio Emilia



#### THE °CLIMATE GROUP



PRESENTATION TITLE 12



#### JOIN & FOLLOW US! #EV4SCC



https://eu-smartcities.eu/content/electromobility





- 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).



# OPTICITIES ENHANCING SMART MOBILITY













#### Introduction

### OPTICITIES

#### 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

















OPTICITIES

#### Planning

-

	YEAR 1	YEAR 2	YEAR 3
<ul> <li>Technical development:</li> <li>Data creation and use</li> <li>Open ITS System</li> </ul>		0	
<ul> <li>Decision Support Tools</li> <li>Traveller Information Services</li> </ul>		Prototypes implemented	
Experimentation			Onsite
Evaluation	Pre-design	in itinere	
			Recommendations
Dissemination	Promotion		
		Stakeholder Forum	Replication
Management	Project Management - Technical Coordination		

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#### Objectives

### OPTICITIES

#### Set up high level services for travellers and urban logistics,

addressing user needs and urban mobility public policy,

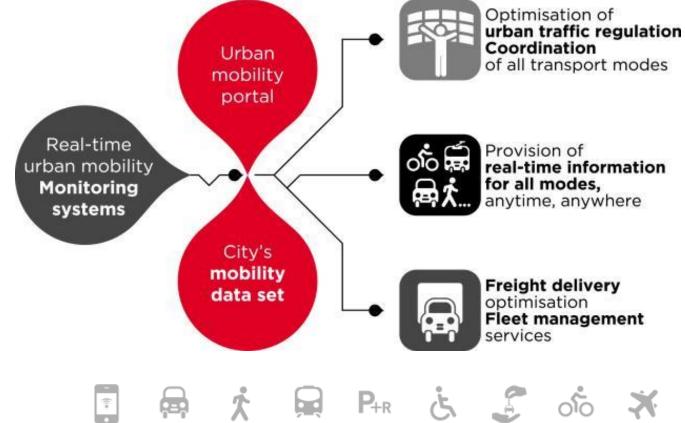
- Support mobility policy and an open market for business development around urban ITS, through a contractual framework between public – private actors
- Define standard and architecture to foster interoperability among cities and among travel modes



#### Concept



- 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







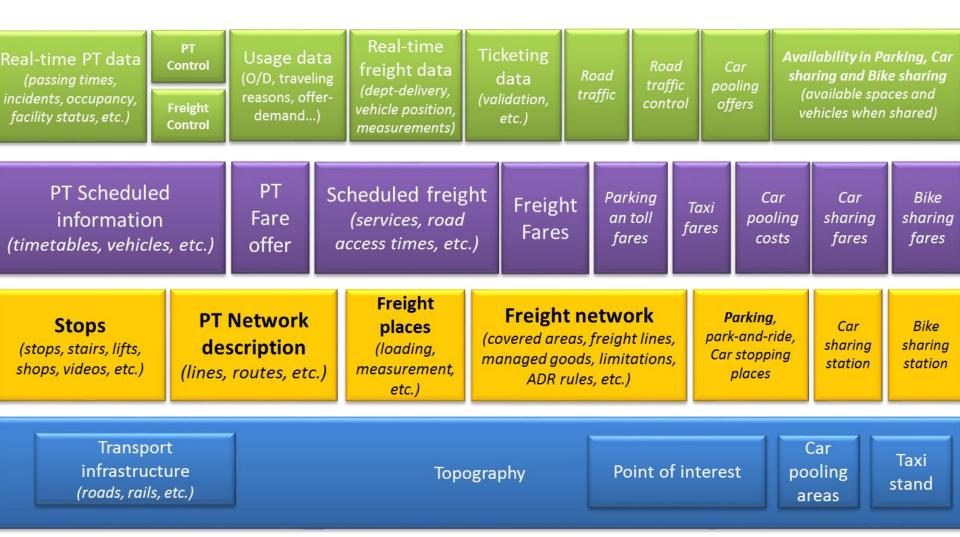
OPTICITIES





#### **OPTICITIES** data categorization proposal completed

- Datasets identified for relevant use cases/services
- Multilayered approach responding to data life cycles



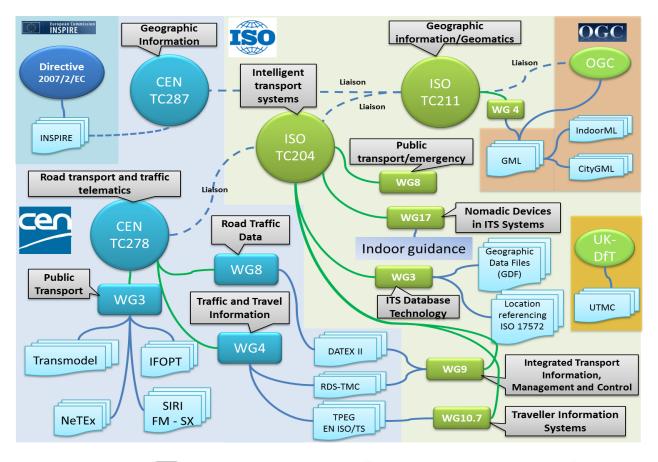
#### What has been achieved so far?

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#### **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



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- 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.

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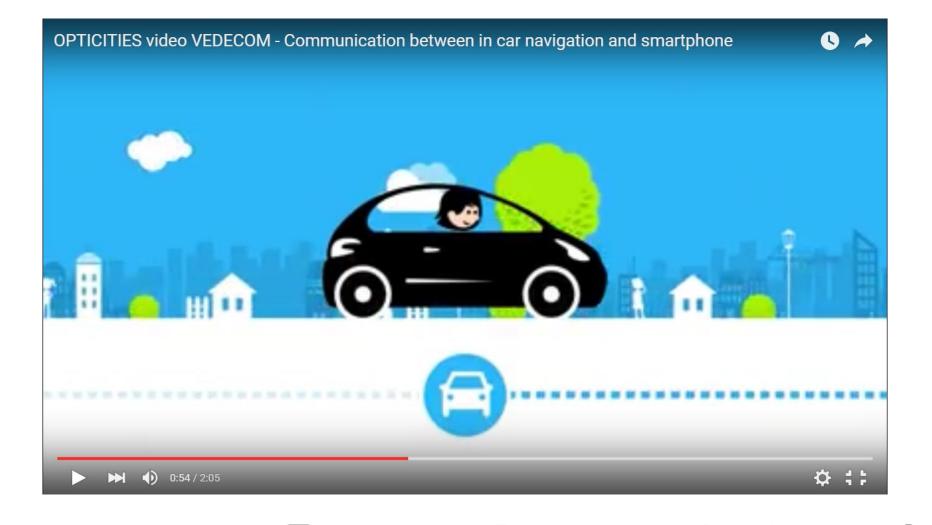


- Making use of the OPTICITIES Multimodal Urban Database model and architecture, Hacon and Cityway developed a common architecture for the multimodal urban navigator in Grand Lyon, Gothenburg, Madrid and Torino.
- Vedecom developed a functional interface that allows for synchronisation with in-car navigation systems. In the case of Grand Lyon and Torino, the multimodal urban navigator can also offer realtime 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

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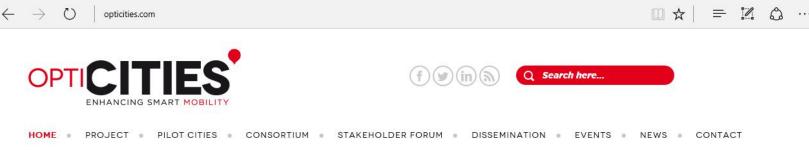
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OPTICITIES

#### www.opticities.com





#### GREAT AMBITIONS

Opticities: Home

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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.

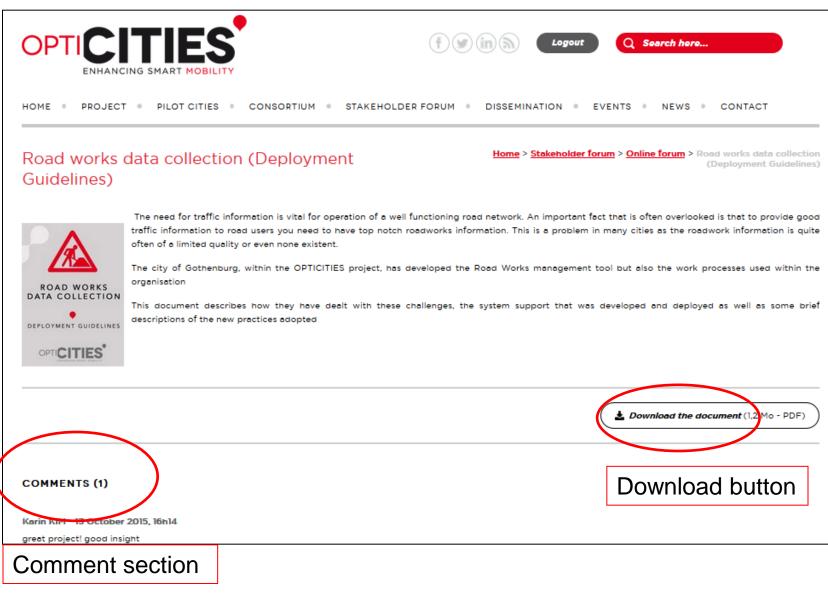


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#### Stakeholder forum

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### OPTICITIES



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#### Deployment guidelines

Deployment guidelines		OPTICITIES	
Del No.	Deliverable Name		
D114	Deployment guidelines for road works data collection		
D116	Deployment guidelines for new tools for freight data monitoring		
D118	Deployment guidelines for social media/web2.0 use to increase travel information quality and for setting up a real time car pooling service		
D121	Report for contractual arrangements between public and private stakeholders for mobility data availability		
D212	OPTICITIES Multimodal Urban Mobility Database model and architecture		
D213	Standardised data conversion (prototype development)		
D221	OPTICITIES Urban Mobility Portal design and interface speci	ification	
D312	Deployment guidelines for traffic prediction in Traffic Management Centres		
D322	Deployment guidelines for multimodal mobility management		
D323	Assessment methodology for Transport policies in urban areas		
D332	Deployment guidelines for soft modes priority		
D412	Deployment guidelines for multimodal real-time urban navigator		
D422	Deployment guidelines for interfaces with in-car navigation systems		
D432	Deployment guidelines for real-time car pooling		
D532	Deployment guidelines for dangerous goods and oversized	vehicles service	
D542	Deployment Guidelines for Freight Management within urb environment	an	
D552	Deployment guidellis for urban freight navigator tool integra	ator	
D721	Guidelines for the design of multimodal navigator for passe freight and for the Decision Support Tool, and HMI	ngers and	
D751	Guidelines to make ready to market the technical tools and KPIs	finalisation of	

#### More information: social media



#### Road Data Collection in Grand Lvon

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 ... meer



Road Data Collection in Grand Lyon youtube.com . Grand Lyon makes use of the VIAPIX® sy to-date information on the road network, including signage

Commentaar (0) + Interessant (0) + Volgen

Voeg commentaar toe ...

Peter Staelens Project Coordinator bij EUROCITIES

#### Contribute to the EC consultation on multimodal travels download the presentations from the stakeholder works

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

Commentaar (0) · Interessant (0) · Volgen

- Tweets Tweets & replies
  - **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

#### YouTube



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 ...



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Grand Lyon makes use of the VIAPIX® system to collect up-totion on the road network, including signage and markings. By innovative acquisition device with powerful processing system allows road managers to reference, inventorise and assets in order to produce data for GIS

OPTICITIES



E Subscribe 1

Grid -

Date added (newest - oldest) 🔻

#### Videos

1 subscriber 🔢 147 views 🗄 Video Manager



OPTICITIES - Enhancing Smart Mobility View as: Yourself -

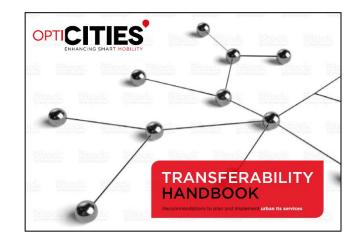
Home Videos Playlists Channels Discussion About Q

Uploads 🔻





- New deployment guidelines
- OPTICITIES Handbook
- Final **project video**



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OPTICITIES

- 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)

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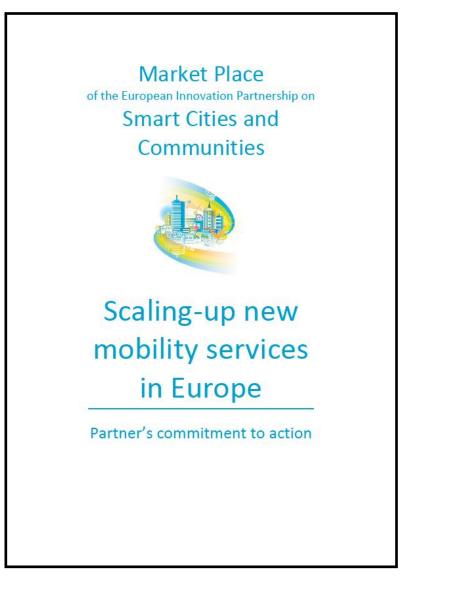
#### Sign the manifesto!



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### Peter Staelens Project Coordinator EUROCITIES Peter.staelens@eurocities.eu

OPTICITIES

#### www.opticities.com

Get more information on OPTICITIES partners and activities:

- twitter.com/opticities
- OPTICITIES group on LinkedIn

www.facebook.com/OPTICITIES

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- 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 25<sup>th</sup> 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 This project has received funding from the European Union's Horizon 2020 programme for research, technological development and demonstration under grant agreement No



### 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

#### **ESPRESSO-**

A systEmic Standardisation apPRoach to Empower Smart citieS and cOmmunties



### ...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-**

A systEmic Standardisation apPRoach to Empower Smart citieS and cOmmunties



## 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.



#### ESPRESSO-

A systEmic Standardisation apPRoach to Empower Smart citieS and cOmmunties



### 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

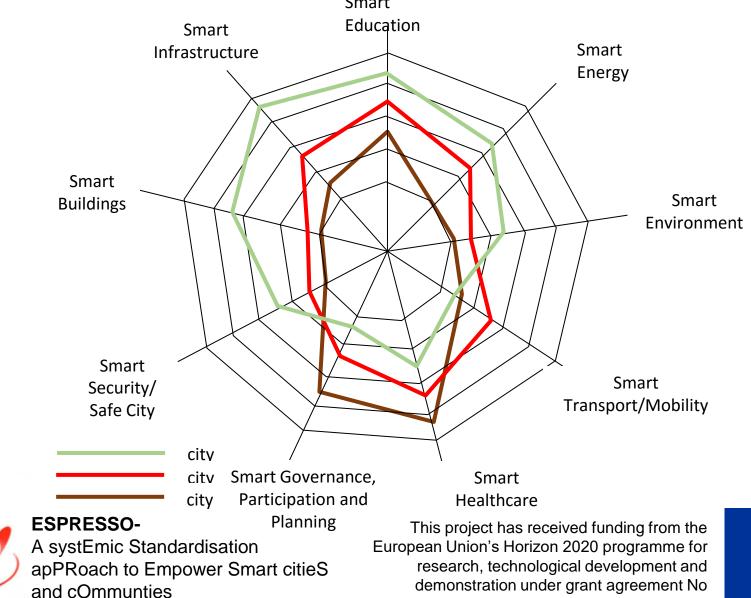


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### Multi-criteria analysis of different smart development dimensions



ESPRESSO



### Indicators

Indicators for the platform are divided into two main categories:

- 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

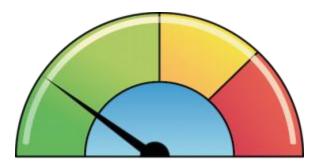
**ESPRESSO-**

A systEmic Standardisation apPRoach to Empower Smart citieS and cOmmunties





### **KPIs descriptions – example**



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



#### **ESPRESSO-**

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## **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 cOmmunties



## **Get involved**



http://espresso-project.eu/



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



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



#### **ESPRESSO-**

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### **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

### FTIPilot-01-2016: Fast Track to Innovation Pilot

- 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.
- Deadline: 25 Oct 2016

### **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
- ICT-15-2016-2017: Big Data PPP: Large Scale Pilot actions in sectors best benefitting from data-driven 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



- 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



http://eu-smartcities.eu