



Sharing Cities Consortium Meeting

20th-21st September 2017

Digital Greenwich, 6 Mitre Passage, London, SE10 0ER

Record of meeting

Attendance

Name	Organisation
Giovanni Accetta	A2A
Alberto Ventura	A2A
Telma Mota	Altice Labs
Christophe Colinet	Bordeaux
Daniela Alexieva	Burgas
Jana Koleva	Burgas
Ruska Boyadzhieva	Burgas
Maurilio Zuccalà	Cefriel
Carolina Carli	CEIIA
Marta Bugay	City of Warsaw
Marek Brand	Danfloss
Vera Nunes	EDP Distribuição
Nuno Sardinha	Empresa Municipal de Mobilidade e Estacionamento de Lisboa
Vasco Mora	Empresa Municipal de Mobilidade e Estacionamento de Lisboa
Bernadett Degrendele	EUROCITIES
Francesco Marchet	Future Cities Catapult
Jarmo Eskelinen	Future Cities Catapult
Euan Mills	Future Cities Catapult
Michelle Warbis	Future Cities Catapult
Rick Curtis	Greater London Authority
Trevor Dorling	The Royal Borough of Greenwich
Joel de Mowbray	The Royal Borough of Greenwich
Sarah Butler	The Royal Borough of Greenwich
Jemma Hoare	The Royal Borough of Greenwich
William Holden	The Royal Borough of Greenwich
Shaun Gibbons	The Royal Borough of Greenwich
John Lynn	The Royal Borough of Greenwich
John Higginson	Higginson PR
John Polak	Imperial College London
Kosta Zavitasas	Imperial College London
Caterina Benvenuto	Legambiente
Eduardo Silva	Lisboa E-Nova

Andre Cabral	Lisbon Municipality
Piero Pelizzaro	Milan Municipality
Clara Callegaris	Milan Municipality
Valerio Siniscalco	NHP
Andrew Collinge	PMO
Nathan Pierce	PMO
Matt Clifton	PMO
Sandeep Duggal	PMO
Bushra Khan	PMO
Shane Canning	PMO
Jem McKenna-Percy	PMO
Roberto Nocerino	Poliedra (IT)
Demis Lorenzi	POLIMI
Madelana Seabra	Reabilita
Sara Filipponi	Siemens
Simon Burgess	Siemens
Andre Pina	Tecnico Lisboa
Cecilia Hugony	Teicos
Jason Warwick	UrbanDNA
Graham Colclough	UrbanDNA
Marcin Wróblewski	Warsaw
Andrea Canevazzi	
Edward O'Dwyer	
Giuseppe Salvia	
Luca Bianchi	
Marco Turchini	
Michele Petroni	
Mircea Bucur	
Roberto Moreira	
Koji Kikuchif	
Antony Pye	



Outline of Agenda

Day 1

1. **Welcome from Greenwich and the Sharing Cities Senior Responsible Officer**
2. **City and Work Package updates**
3. **Work Package Meetings**

Day 2

1. **Interdependency Workshops**
 2. **PMO Question Time**
 3. **Wrap up & Conclusions**
 4. **Study Tours**
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Summary

This was the third Consortium Meeting of the Sharing Cities programme and was hosted by the Royal Borough of Greenwich (RBG), one of the Sharing Cities lighthouse cities.

The consortium meeting was hosted by RBG, at the offices of their Digital Greenwich team, a new facility located in on the North Greenwich Peninsula, which is now a creative hub of innovation and design.

The content of the event was coproduced by the transversal PMO, RBG and members of the Design Forum.

As the Sharing Cities programme progresses beyond its design phase, the partnership meeting was constructive and open about the burning issues and obstacles to delivery that need to be addressed. This was reflected in the theme of the meeting, which was a 'brass tacks' approach to 'Delivery through Collaboration.'

To ensure that partners keep up with our commitments to deploy Sharing Cities solutions, the discussions focused on the:

- actual state of implementation of each task and measure
- adopting a new monitoring of measure progress in the cities
- resolving the obstacles and challenges to delivery
- packaging of measures
- making Sharing Cities solutions investment-ready

Consequently the initial updates by work package leads and cities were centred on delivery issues and work package discussions focused on procurement, delivery, replication and scaling-up.

The interdependency discussions on the second day also centred on obstacles, with a particular reference to packaging measures to make them scalable and business ready; dashboards; evaluation and the digital social market; and data sharing.

DAY ONE - WEDNESDAY 20TH SEPTEMBER

1. Welcome

The meeting was opened with a welcome from Trevor Dorling, Director of Digital Greenwich and City Lead. This was followed by a run through the order of the day by Sarah Butler, the RBG Programme Coordinator for Sharing Cities.

Following this the programme's Senior Responsible Officer, Andrew Collinge Assistant Director of Intelligence at the Greater London Authority, provided a strategic-level overview on progress. The key message was that the programme needed to be getting down to 'brass tacks' of delivery and that everyone needed to be honest with each other in order to maximise chances of success.

2. Work Package and City Updates

Work Package leads presented updates to partners. Each presentation contained a reminder of the main content and deliverables within their WP as well as an update on general activity and activity within each city. They also provided details of their future plans. The updates reflected the work being undertaken for the Periodic Review in March and came with a strong focus on delivery.

These presentations are available on the Sharing Cities Google Drive:

<https://drive.google.com/drive/folders/0B8O7GzEIBEiNQmI3cHROaFRqdFk?usp=sharing>

This first session was an opportunity for all partners to share an early and honest appraisal to be further explained and understood over the course of the two days.

Work Package 1: Programme Management

Nathan Pierce, Programme Director of Sharing Cities and WP1 lead, highlighted the progress that the programme has made since the March Consortium Meeting and how well Sharing Cities was placed among other SCC01 partnerships across Europe.

Since the last meeting, Sharing Cities had a successful Periodic review; the programme had managed some tricky budget issues; the partnership has proactively tackled issues around Data Privacy and the new General Data Protection Regulation (GDPR); it has developed a Marketing strategy, a Risk strategy and a Procurement strategy. And there has been the codevelopment of Measures monitoring.

Challenges that the partners still have to tackle include resolving barriers to implementation; reducing the number and frequency of late deliverables; completing another amendment to the Grant Agreement in October; carrying out a GDPR pilot in Milan; and ensuring that solutions are common across the cities in order to help package and replicate them.

Work Package 2: People

Francesco Marchet, WP2 lead, and Euan Mills from Future Cities Catapult presented the current state of play in WP2 and their recent outputs including:

- User research
- Deliverable 2.10 on Community Facilitators

- Deliverable 2.3 on the Digital Social Market (DSM) strategy
- Recent work on amendments to the WP2 Description of Actions

Euan gave a detailed explanation of the challenge of developing the DSM strategy and the process of research, design sprints, co-design sessions and city-level reviews.

The aim is to link benefits and behaviour change between suppliers and users using a three tier approach involving the consortium, disseminators and citizens. The strategy is to take a developed framework and apply it within an application, which will be set up and launched with a view to promoting its evolution through future features.

Work Package 3: Place

Eduardo Silva, Lisboa Enova and WP3 lead, gave a detailed presentation on the progress of measures within WP3.

Key processes in the delivery of measures include Design, Specification, Procurement, and Implementation. There are interdependencies both within and among WP3 tasks as well as with other work packages, particularly around:

- Procurement, Risks and Issues
- Use Cases, Data Capture, Dashboards
- Business Models and Funding
- Packaging
- Replication, Communication & Dissemination

Among the many aspects of **Retrofit** of buildings are:

- The integration of public buildings with SEMS in Lisbon
- The innovative use of a water source heat pump in Greenwich
- Exceeding expectations of impact in Milan

Sustainable Energy Management Systems (**SEMS**) is optimising the performance of an energy system through advanced process control and data systems to achieve specific KPI's.

A lot of progress has been made on the technical side involving the procurement and development of an algorithm; but there is still work to do on clarifying issues around the mapping, privacy and ownership of data.

With regard to **shared eMobility**: eVehicle and eBike sharing there is an algorithm in development to improve reallocation of vehicles and the eBikes implementation is massively exceeding commitment.

In Greenwich the launch of a Car Club scheme in early 2018 will involve 6-10 vehicles. In Milan 60 shared electric cars will be deployed by the end of 2017. And in Lisbon, Corporate eCar Sharing will be implemented among the Municipal fleet by the end of 2017.

More work remains to be done around the installation of charging points, the procurement of charging points for lampposts and linking such infrastructure with SEMS. There also needs to be further discussions of end-user engagement and marketing strategies with WP2.

Smart Lampposts demonstrate the integration of smart lighting with other smart service infrastructures, such as eV charging; smart parking; traffic sensing; flow data; and WiFi.

Recent achievements have included the definition of common specifications, and a market analysis of existing sensors and solutions. Still remaining are the deployment and installation of smart lamppost solution, along with the alignment with Urban Sharing Platform (USP) and agreed methods to measure and evidence the benefits.

Work Package 4: Urban Sharing Platform

Jason Warwick, Urban DNA and WP4 lead, presented critical challenges, obstacles and timelines for the Urban Sharing Platform. However, the key message was that Urban Sharing Platform is now up and running and ready to start accepting data sources. Some of the challenges it still faces are:

- Detailed description of city Use Cases (UCs) need to be finalized
- Ongoing Data Privacy Impact Assessments may affect the development of USP features and/or the feasibility of some UCs
- City dashboard requirements are still being defined including co-ordination/crossover with WP8 & city KPI's
- Requirements/dependencies of WP2 need further clarification
- Need for data from WP2 and WP3 to feed the framework

Work Package 5: Replication

Bernadett Koteles-Degrendele, EUROCTIES and WP5 and WP6 lead, presented the current state of play in regards to replication. This included:

- Delivering the city baseline reports
- Sharing the smart city solutions for lighthouse cities
- Piecing together the replication roadmaps for fellow cities
- Organising national scale-up meetings
- Organisation of meetings with funders

Work Package 6: Communications

For WP6 (communications) Bernadett set out the work that is currently taking place to raise the profile of the programme. This included:

- Planning of video for sharing via social media platforms
- Press and media activities
- Knowledge platform registrations
- Social media use
- Event participation, for example, Barcelona Smart City expo

Also presented were the activities taking place in the Fellow Cities, Bordeaux, Burgas and Warsaw, such as workshops of best practices, development of use cases and participation in conferences.

Work Package 7: Business Models and Financing (BM&F)

Graham Colclough, partner at UrbanDNA and WP7 lead, presented the headline points from his work package. His key point was that money is the essential ingredient for scale up in cities and therefore we need to increase attention given to financial matters over the coming months.

Because investors may view cities as “too small, too slow, and too risky” scaled, integrated and common solutions across cities offer investors confidence that a return on investment can be delivered.

Also the European Commission is clear that business models and finance are key agenda items, and want to see more focus on them.

In Milan there is a strong BM&F agenda and active engagement on the topic; across London there is proactive measures mapping through the GLA; and among the Fellow Cities Burgas has been active in support the European Innovation Partnership work strand, while Bordeaux has been active on the standards agenda to build common solutions. There is a challenge for Greenwich and Lisbon to further develop such work around their measures.

Work Package 8: Monitoring and Evaluation

Prof John Polak, WP8 lead, presented on behalf of Imperial College, London.

The objective of the WP8-WP2 workshop was to explore the possibility of undertaking an evaluation of the Digital Social Market (DSM) being developed in WP2. The workshop identified a number of aspects of the design and operation of the DSM which, in principle, might be the subject of a useful evaluation activity. These include:

- The nature and rate of sign up of different types of participants in the DSM.
- The use made by those signed up to the DSM of the different incentivisation and reward mechanisms provided by the DSM
- The extent to which the DSM creates real and sustainable value for its participants
- The nature and extent of the behavioural change that can be attributed to the operation of the DSM
- The economic, social and environmental impacts of the behavioural changes brought about by the DSM, and the incidents of these effects on different DSM participants

Deliverable 8.2 set out Core & Site Specific Data Collection Protocols; and Deliverable 8.3 outlined Local Monitoring Programme Design.

Challenges over the coming months include the finalisation of demonstrator plans; data collection protocols for all demonstrators including WP2 & WP; management of data privacy; description of partners involved in monitoring and their role; description of data collection and handling responsibilities; and the presentation of local monitoring programmes for each city.

The next steps include the data and analysis ‘pulse’ deliverables (D8.4[a-e] & D8.5 [a-e]). Also Deliverable 8.8, the “Interim Report on Model Toolbox”. These deliverables will probably also require re-scheduling given the delays in implementation.

The workshop agreed to convene again to explore the development of these ideas, once a concrete instantiation of the DSM is available.

3. Work Package Meetings

WP 2, 3.1, 3.2, 3.3, 3.4 & 4 separate meetings (Procurement and Delivery)

Delivery leads of each work package/ task led discussions to ensure that procurement activities were consistent with the programme timelines for that work package/ task and that sufficient information is captured through procurement and tendering processes.

Attention was paid to obstacles and delays in procurement, the knock-on delays in implementation, technical difficulties and issues with under-performance in the measures.

The **work package 2** meeting focused on completing the strategy for the Digital Social Market. It was recognised that there needed to be a greater exchange of experience between cities to make the plans and development of the DSM more realistic, and need to focus in on fewer measures rather than all of them.

While the work to date has been largely abstract and conceptual, it has nonetheless been informed by discussions among Sharing Cities partners. However there may be the opportunity to widen the conversation to more cities, including the Fellow Cities, and take better account of local priorities, such as the monetisation of incentives and benefits.

Task 3:1 (Retrofit) reviewed its timeline and will begin procurement processes in October.

In Lisbon, planning for works in the municipality building and social housing has been finished, although there will be continued review and action to ensure that expected impacts are reached.

In Greenwich, procurement processes will be signed-off in 2018 and the borough is drafting a BEST table 3 B that would include energy efficiency improvements in schools.

Work is underway in some of Milan's building with further work on public buildings and private apartment blocks beginning soon.

Task 3:2 (SEMS) has good range of developed use cases. The discussions identified 'unblockers' and opportunities. The 'unblockers' are:

- Sorting out the interdependencies with 3:1 around the clarification of assets and delays e.g. PV in Lisbon and heat pumps in London; and
- Unlocking data privacy to prevent further delays causing operational delays.

The opportunities are:

- Operational: working with WP4 to bring information capture and energy together
- Opening the application for differing use cases.

Task 3:3 (eMobility) is running behind schedule with key interdependencies with smart parking and smart lamp posts still to be resolved.

At the heart of the success of eMobility and the sharing of vehicles is in-depth engagement with citizens, which is currently low and needs to be improved.

However, electric vehicles will have a big impact, with 100% of electric vehicles impacting air quality of 70% of the global population living in cities by 2050. Sharing of vehicles will lead to a 30% reduction of vehicles on the road, reducing congestion. The sharing of vehicles and the provision of transport on demand will signal a major shift in asset ownership.

Technically there are three major tasks: the roll-out of vehicles, the deployment of infrastructure and the sharing platform to manage the sharing service. Organisationally, there needs to be clear business cases and business models. To support investment there needs to be a clear evaluation of operational and capital expenditure required. This will help determine what kind of return the move towards shared electric vehicles could offer.

Task 3:4 (lampposts) have an aligned timeline across Milan and Lisbon.

The cities are working on what they can best do with what data. Lampposts are nodes in a big network, supported by the low frequency radio protocol, LoRa, to collect data.

Issues around the feasibility of networked lampposts include the availability of continuous power, network loads and car charging.

Given the lack of resources available to UrbanDNA for this task, the programme will consider whether A2a or LisboaENova should take on the task lead responsibilities.

Work Package 4 (Urban Sharing Platforms) will update its baseline risks in September/October. The USP is open to business and each of the cities have USP components. The meeting explored these components and began to identify what data sources were due to come on stream.

WP 5, 6, 7 & 8 combined meeting: Replication and Scale-up

This work package group focused on the strategic aims and goals of the programme and explored where we are with replication and scale up and what practical steps need to be put in place to ensure success in the final two years.

This conversation considered the evidence base needed to support viable business models and strategies and how we draw together packaging, replication and evaluation to attract investors from the private sector and the take up of measures and aligned procurement among city authorities.

These work packages agreed that it was necessary to establish the issues/vision/framework solutions for each measure.

Demand aggregation and the bundling of measures, such as lampposts, across cities into viable business models remains an issue, but this will be the route to triggering €500 million euros of investment.

Quicks wins could be the replication of measures across Fellow Cities and in areas local to the demonstrator districts. This would help give confidence to cities and investors, initially on a case-by-case basis to invest in smart city solutions. This will be further supported by marketing across the SCC01 family of European cities as well as the evidence provided by data capture.

Future actions will include an Investors' Summit, the identification of investment stakeholders, developing the 'story' of business models around verified case studies and the evaluation of outcomes through the identification of critical indicators for finance.

Day Two: Thursday 21st September

1. interdependency Workshops

On day two the meeting split up into four workshops to discuss interdependencies between the work packages. Four areas had been identified before the event:

- Workshop 1 considered definitions and processes that support **packaging** and existing materials.
- Workshop 2 looked at **dashboards**, and the WP3/4 architecture.
- Workshop 3 focused on the future **evaluation of the Digital Social Market**.
- Workshop 4 explored the programme's approach towards the **General Data**

Protection Regulation and the opportunity to share data among infrastructures.

Workshop 1: Packaging measures

This interdependency group looked at the alignment of needs and value in the packaging of measures, including retrofit, energy management, shared mobility and lampposts.

The workshop considered definitions and processes that support packaging and existing materials, such as the baseline documents and reports that outline what the measure does and the progress of its implementation. This included:

- Look at packaging from an EU perspective, and its requirements to meet its social, economic and environmental goals
- Discussions on the needs and perspectives of the Lighthouse Cities
- Further consideration was given to how Fellow Cities could best pick up the packaged measures as a further proving ground

The outcome of this meeting will be for all consortium partners to engage in the packaging process in order to realise our plans for city funds. This needs to take place alongside implementation, not after it. Packaging will be led by WP7, WP3 and WP1.

Workshop 2: Dashboard

This discussion group looked at dashboards and at the WP3/4 architecture. City representatives presented current local dashboard plans and approaches, either via a live demonstration or a static example. The group then considered where dashboards should be separate for each measure; where these can be integrated and/or combined; where can the dashboards be aligned across three cities and where local differences are needed.

Before the workshop, local WP3/WP4 city leads prepared static or live dashboard demonstration to illustrate approach in each city, updated the WP3/4 architecture document (based on the 1st draft generated by Telma and shared by Jason); and updated data capture spreadsheet (ensuring an up-to-date picture of data/connectivity/devices).

The outputs from the meeting were:

- This workshop identified a hierarchy of dashboard reports. This hierarchy structure was based on three levels, 1. To measure data 2. City data visualization and 3. Sharing cities common KP
- These included a city level dashboard, for which a standard template could be sent to cities shortly for their consideration and feedback
- Task managers hope that all the dashboard requirements should be finalized by 30th October
- A key opportunity is for dashboards to provide a global view of reporting aligned with WP8 on monitoring and evaluation
- A MOSCOW ranking of dashboards to be created in the process to capture plans

Workshop 3: Monitoring of the Digital Social Market

Monitoring and evaluation is critical to the wider policy and innovation because it tells us how Sharing Cities is performing and why, thus generating important learning to help cities develop and grow sustainably. This workshop considered the question of whether and how

we should evaluate the operation of the Digital Social Market, one of the last aspects of the Sharing Cities programme to be designed. This was intended to lead to a considered view of the WP2-WP8 nexus, and help develop thinking about how work package activities (from across the programme) fit into evaluation.

This workshop considered how WP2 can work within WP8 to monitor and evaluate the digital social market. This will include the engagement of key actors – the Consortium, Businesses and Citizens. Of particular interest in the evaluation process is the extent to which stakeholders take part in DSM process and how benefits are redeemed and to what effect. It is crucial to scan behaviour to monitor any potential change and the impacts that might have. Given the potential benefits and incentives, it will be important to spot where stakeholders try to game the system because people are most innovative when being fraudulent.

The outcomes from the meeting were to include the feedback into the current design of the DSM and to engage Imperial directly in the upcoming deliverable on the implementation of the DSM.

Workshop 4: Data sharing

It has become clear that the General Data Protection Regulation (GDPR) will need to be considered by Sharing Cities, which will create some additional requirements. While GDPR and the associated Privacy Impact Assessments are focused on personal data, much city data between measures and infrastructures are not personal or are anonymous, and should and can be exchanged.

This workgroup considered what types of data might be collected through the measures and which are low risk from a GDPR perspective and how data sets might be shared to obtain improved impacts, innovation and service improvement.

The workshop started off with a review of the General Data Protection Regulation (GDPR) and some of the additional requirements it places on cities and programmes with regard to the collection and sharing of data. GDPR is a very European way of thinking about privacy issues and the consented use of data, and different to that of the USA. This will have implications for replication of measures at a global scale.

Programme managers will need to consider the flow of data within and between measures when undertaking Privacy Impact Assessments, in order to know what data they are collecting and exchanging, how it is shared (for example, through the USP) and how to apply the principle of proportionality.

The flows of data through such infrastructures is shifting the value of data to the municipality, which will be seen as they key point of accountability in data protection. Cities will be seen as increasingly responsible as the guardians of ‘citizen’ data (personal right to privacy) whereas consumer data will remain primarily the concern of the private sector.

The outcomes of this meeting will be to support the cities to develop their Privacy Impact Assessments over the months to December. Key use cases to examine might include SEMS, eV bike sharing, and the use of water source heat pumps in domestic properties.

2. Sandeep’s Question Time

Sandeep Duggal, the Programme Manager for Compliance in the PMO, GLA, gave a presentation on issues that programme partners will need to address over the coming months. This included:

- A key message is that deliverable submissions should be on time.

- Quality management processes have been approved by Programme Board for implementation.
- It is important to allow sufficient time in a deliverable's timeline for consultation, PMO and PB approval.
- In particular, bear in mind that due date are the dates when the deliverable is due to INEA not the PMO.
- Any submission issues should be flagged to PMO promptly

With specific regard to audit requirements:

- Complete and keep timesheets up to date
- Declarations are required for partners working exclusively on the programme
- Audits can happen up to two years after the end payment, so don't throw anything away before 2022!
- Ensure you are aware of all the requirements in the Grant. If in doubt, consult the PMO.
- The periodic review process will begin earlier this year, in November.
- Financial statements should be submitted within 60 days after period end and payment will be mad within 90 days of their receipt. Resource allocations will be reviewed after actuals are submitted. If you don't use it you lose it!

3. Study Tours

1. Real time data and community engagement platforms (North Greenwich)- Presentations from Greenwich on the online community engagement platform to be used for resident engagement and co-design in the programme; and early results from a study on the use of IoT air quality devices
2. eLogistics (Greenwich)- visit to the base of the newly launched zero emission deliveries scheme in Greenwich, which will offer an electric cargo bike goods delivery service

Conclusions

Representatives of our 35 partner organisations came together in Greenwich on 20/21 September at a half-way point in the delivery stage of the Sharing Cities programme.

This meeting offered the opportunity to discuss and think strategically about key delivery challenges and obstacles and how to go about resolving them. Partners also took the time to review progress and discussed the state of play of the different deliverables.

Across a series of sessions, participants assessed progress in specific areas, such as packaging, dashboards and evaluation. Technical issues, such as data sharing, were delved into in order to develop best replicable responses.

Overall the meeting was productive with good attendance from partners. A forward plan for future activities were discussed with WP6 leaders including the next consortium meeting,

which should take place in Lisbon in March with themed discussions around completing delivery and scaling up outside Lighthouse cities.

This meeting undertook a wide range of work package discussions, some focused on delivery, others on strategic foresight.

As well as the two days of consortium meetings, there were meetings of the programme board and design forum on the preceding Tuesday as well as follow-up work package meetings on the following Friday. The result was that the consortium week proved to be a fully productive use of partnership time and resource.

The planning for the next Consortium meeting and Periodic Review will begin shortly.

Location and date of next meeting: Lisbon, March 2018 (date TBC)

Record submitted by: Matt Clifton, PMO Programme Manager – Partnership Lead

Approved by: Nathan Pierce, PMO Programme Director