

EIP INTEGRATED INFRASTRUCTURE URBAN PLATFORM

Vivienne Avery,
Intelligence Unit
Greater London Authority
14th October 2015

TO COVER

- What is an Urban Platform and what are we trying to achieve?
- What is the 'Demand side'?
- Who is participating and who do we want to join us?
- What does participation involve?
- What are the benefits of participating for my city?
- Questions and discussion

WHAT IS AN URBAN PLATFORM?

WORKING DEFINITIONS

An '**Urban Platform**' is...

... the implemented realisation of a logical architecture/content/design that brings together (integrates) data flows within and across city systems

... and exploits modern technologies (sensors, cloud services, mobile devices, analytics, social media etc)

... providing the building blocks that enable cities to rapidly shift from fragmented operations to include predictive effective operations, and novel ways of engaging and serving city stakeholders

... in order to transform, in a way that is tangible and measurable, outcomes at local level (e.g. increase energy efficiency, reduce traffic congestion and emissions, create (digital) innovation ecosystems, efficient city operations for administrations and services)

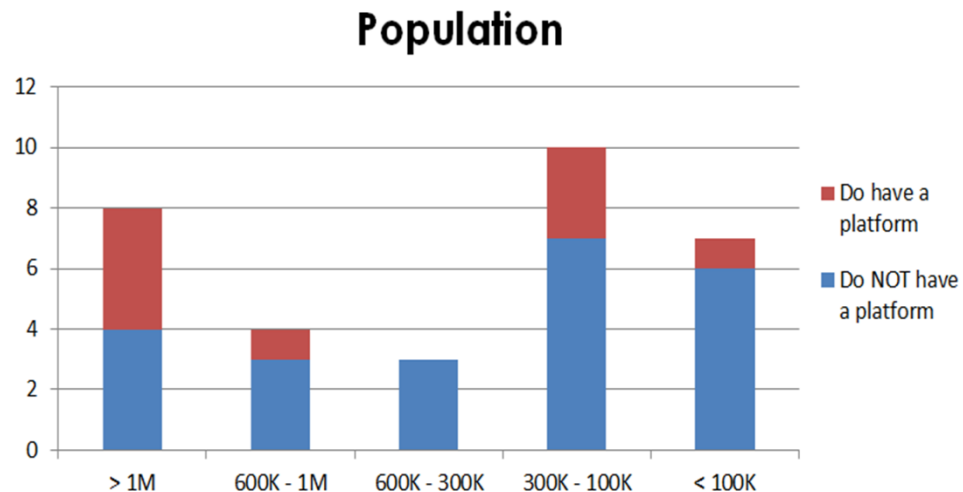
URBAN PLATFORM TARGET ELEMENTS & CAPABILITIES

- Caters for interoperability between urban infrastructures
 - Replicability of the solutions/platforms city to city
 - Scalability without technical constraints and excessive cost increase
 - Open APIs and SDKs
 - Real Time capabilities
 - Inventory of functional and technical capabilities
- By 2016 have reference templates for tenders in place to allow cities to plan in an integrated way
 - By 2018, create a strong EU city market for Urban Platforms
 - By 2025, ensure that the market of 300m residents of EU cities use Urban Platform(s) to manage their business with a city and that the city in turn drives efficiencies, insight and local innovation through the platform(s)

EIP SURVEY ON URBAN PLATFORMS

- sent to 29 cities in 12 countries with population of 28 million
- urban platforms are an immature market - 75% of cities have not yet taken action in this area
- Feedback suggests
 1. Poor knowledge of the landscape / lack of confidence in cities
 2. Cities struggle to get the silos to work together, so prohibiting action
 3. Cities suffer budget constraints

Spread of cities in terms
of population size is
well-balanced



THE URBAN PLATFORM INITIATIVE WITH THE OVERALL EIP CONTEXT

6 Action Clusters

Districts & Built Environment

Sustainable Urban Mobility

Integrated Infrastructure

Citizen Focus

Integr Planning / Policy & Reg

Business Models

3 Integrated Infrastructure Priorities

Urban Platform

Cross-City Transformation

Humble Lamppost

- Accelerate the adoption of Urban Platforms in EU cities

3 Inter-dependent Urban Platform Initiatives

- Status & needs assessment of cities

Demand-Side Mgmt

Supply-Side MoU

- Commitment to open common reference architecture for UP solutions

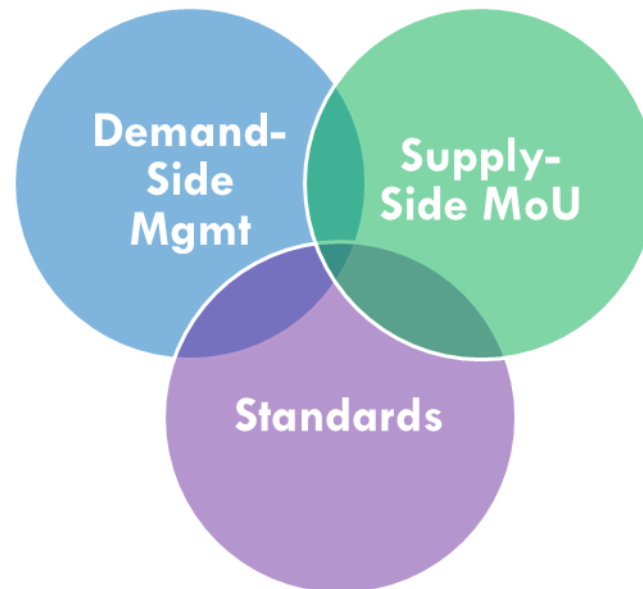
Standards

- SCC03 Standardisation activities

URBAN PLATFORM INITIATIVES

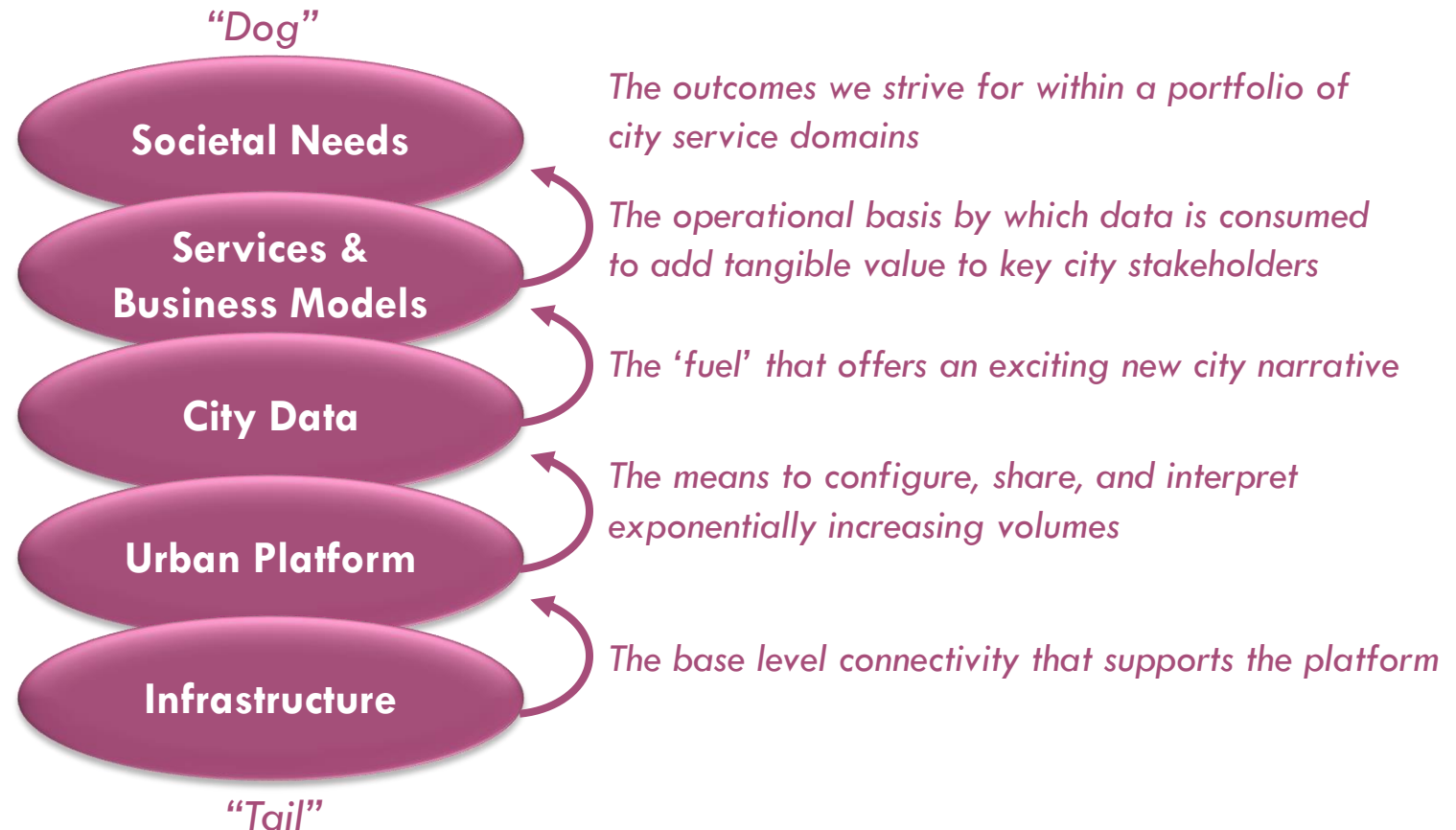
Demand-side

- Taking a city-needs led approach that will move to a more common and aligned set of requirements, and more innovative business models and acquisition processes to acquire urban platforms
- Support assessment and development of a roadmap for cities on the topic
- Mobilise the cities market of all sizes across EU to confidently embark on implementation – such that the bold take-up goals are met – and that they see the real value from collaborative activities and more common solutions



CONNECTING ACROSS THE STACK

The Urban Platform is an important part in an evolving integrated solution architecture



The important thing is for us to take a city-needs-led approach:
not the “tail wagging the dog”

DEMAND-SIDE ENGAGEMENT

METHODOLOGY

- Engage 10 European cities in a series of online workshops to elicit a common and aligned set of requirements of urban platforms, to complement supply-side development work.
- Project team (GLA) to lay down a set of draft requirements for each element in the 'stack'. Followed by focussed, iterative work through a collaborative “wiki” - a way to secure the involvement of a relatively large number of consultees who are able to provide their inputs, comments and recommendations.
- Collaboratively assess, resolve requirements conflicts, prioritise, and validate the requirements of the urban platform over a series of sprints.
- Develop a complete final outline of urban platform requirements to serve as guideline and speed up the development of open platform for cities.
- A final stage to engage with a wider group of European cities for broader validation of city-needs oriented requirements

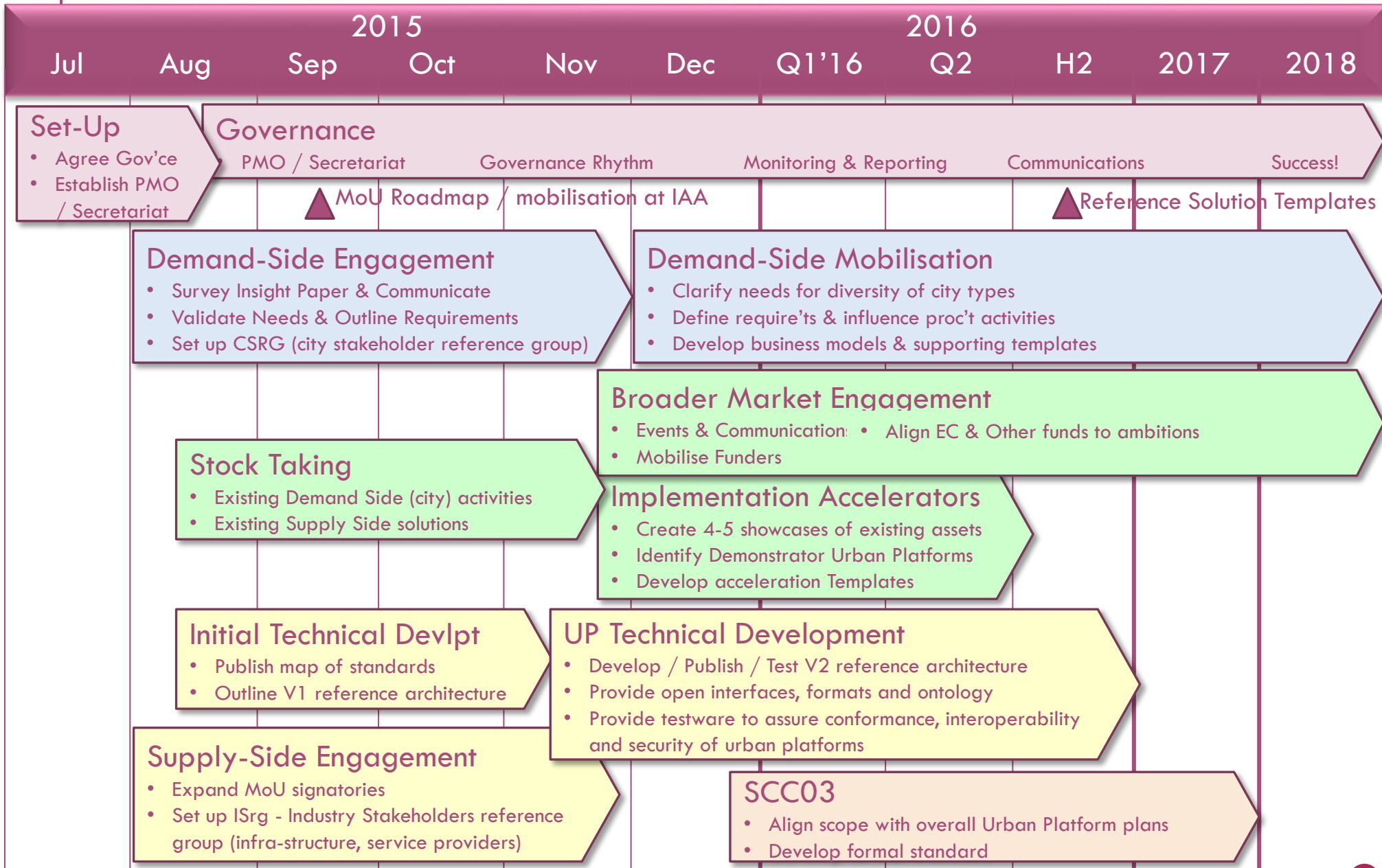
COMMON REQUIREMENTS – DRAFT EXAMPLES

1. Functional Requirements

In this section we provide the high level initial sets of functional requirements the urban platform would need to fulfil. The Domain concept refers to the layers of the strategy stack (Societal Needs, Services & Business Models (Business Needs), City Data, Urban Platform, Infrastructure).

ID #	Description	Priority	Domain
FREQ.1	The platform shall allow users to consume high quality static city data	Must	Societal Needs, City Data
FREQ.2	The platform shall allow users to consume high quality real-time city data	Must	Societal Needs, City Data
FREQ.3	The platform shall provide users easy to use services and informative interfaces	Must	Societal Needs, Platform
FREQ.4	The platform shall allow users to register to use services and consume proprietary city data and open data (optional)	Should	Societal Needs, Platform
FREQ.5	The platform shall provide users access to terms and conditions to use the platform services and data	Should	Societal Needs, City Data, Platform
FREQ.6	The platform shall allow users to search for city data anonymously	Should	Society
FREQ.7	The platform shall provide users information about the legal aspects of the data (license, ownership)	Must	Societal Needs, City Data
FREQ.8	The platform shall allow users to provide feedback on usability, and quality of data and services provided by the platform	Should	Societal Needs, City Data
FREQ.9	The platform shall provide personalised services for registered users	Should	Societal Needs, Platform
FREQ.10	The platform shall offer users services to manipulate city data (e.g. create mash ups, integrate)	Should	Societal Needs, Platform,
FREQ.11	The platform shall support users to consume data in multiple open formats	Must	Societal Needs, City Data
FREQ.12	The platform shall support the commercialization of city data	Should	Societal Needs, City Data, Platform, Business

HI-LEVEL PLAN



PARTICIPATING CITIES

- London
- Amsterdam
- Berlin
- Barcelona
- In discussion with cities in Scotland, France and Spain

■ *PLUS we need a broader range of cities in terms of size (especially smaller and medium size), geography (central, eastern and southern Europe), and a mix of competency in data management*

WHAT DOES PARTICIPATION INVOLVE?

- Express interest to us (London) informally
- Accept a written formal invite to join the Steering Group
- Contribute to initial discussions of user requirements in October-December 2015 (Skype calls)
- Share your experience of using data
- Contribute to further stages of the project

BENEFITS OF PARTICIPATING

- Be at the forefront of urban data platform development and become a leader and creator
- Access to a network of other cities and learn from their innovation
- Opportunity to shape requirements of the platform to meet the needs of your city context
- Develop a platform in your city aligned to the highest standards
- Develop a platform you need that is easy and cost-effective to maintain
- Manage your data in an efficient and integrated way
- Improve the findability and usability of your data – better user experience and user engagement
- Retain your IPR

OVER TO YOU – FOR DISCUSSION

Contact details

vivienne.avery@london.gov.uk

PRINCIPLES UNDERPINNING GOVERNANCE

We should agree a simple set of principles that help self-police our activities, notably given we are in disparate locations and constrained in time, and develop practices built upon these principles

- City-needs-led
 - At all times, are we doing things that will address the societal needs of cities in a positive manner?
- Open
 - The goal is clearly to adhere to 'open' solutions, that will speed adoption, and minimise concerns of vendor lock-in
- Appropriate respect of IP
 - Created IP is open; IP brought to the table is respected to remain within the domain of the provider; we will council strongly against IP being used as a means to slow pace and action
- Collaborative
 - Cross-functional integrated solutions require trusted collaboration across multiple segments to be successful
- Swift Delivery over lobbying
 - We aim at clear tangible and valuable targets and seek to deliver pragmatically and fast; lobbying is frowned upon where it runs counter to the principles
- If we aren't adding value; we're just adding cost, time, and risk!
 - Deliver clearly valued deliverables that will be actively promoted and consumed by the market

We should clarify what each means, and what it does not mean (e.g. what 'open' is and is not)

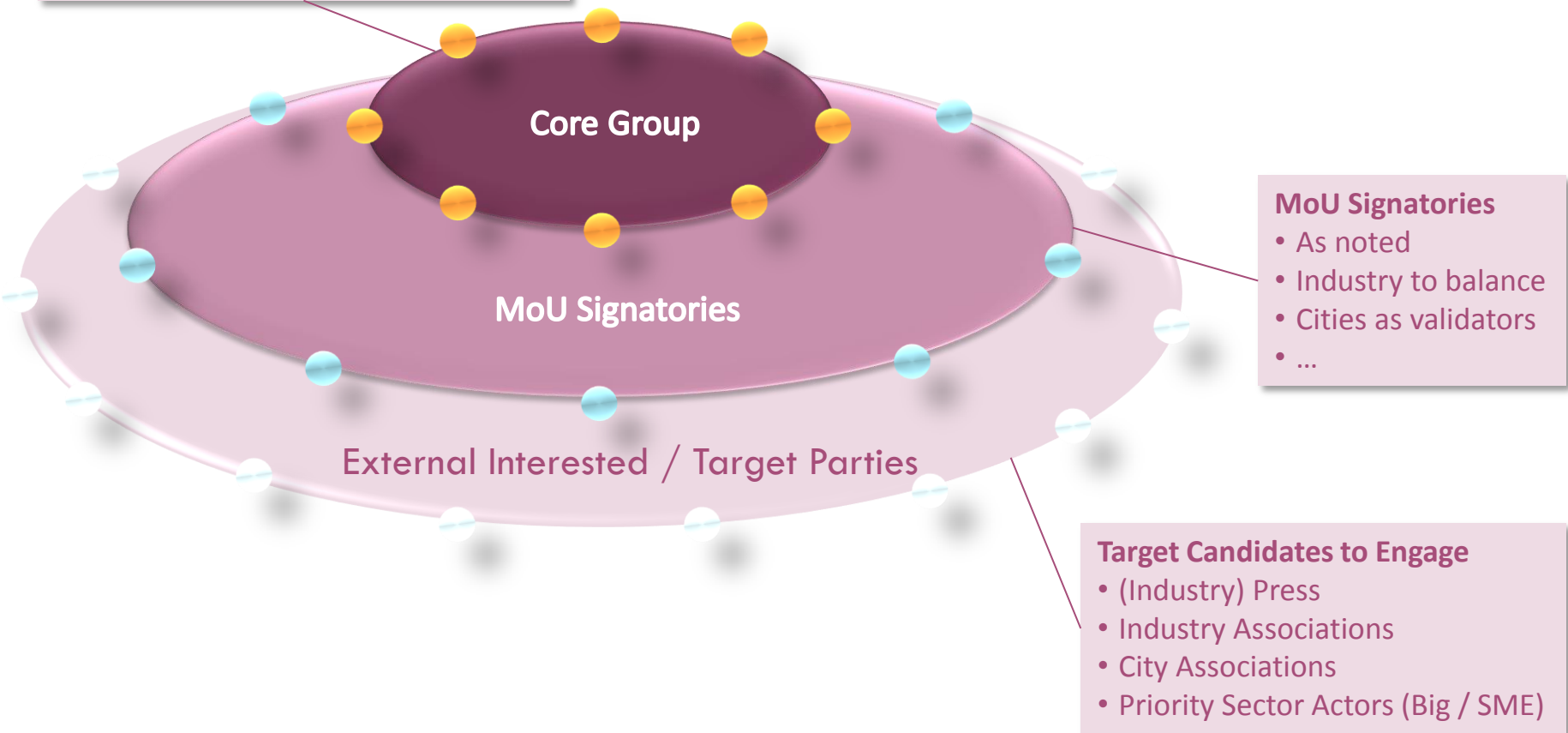
LAYERS OF GOVERNANCE AND ENGAGEMENT

Core Group

- EC
- EIP AC Chairs (initiator/II)
- EIP Demand & Supply-Side Leads

Key roles of Core Group:

1. Steer and guide the initiative
2. Assimilate input from key stakeholders
3. Monitor and course correct progress to fulfil targets



SUPPLY-SIDE MOU OBJECTIVES & GOALS

The Principal Goals of the Initiative are...

- By 2016 have reference templates for tenders in place to allow cities to plan in an integrated way
- By 2018, create a strong EU city market for Urban Platforms
- By 2025, ensure that the market of 300m residents of EU cities use Urban Platform(s) to manage their business with a city and that the city in turn drives efficiencies, insight and local innovation through the platform(s)

Strategic Longer-Term Objectives

1. Accelerate the opening up of the Smart Cities Market
2. Ensure suitable industry input, and an open dialogue with cities and communities in order to take into account their needs and concerns
3. Develop the Urban Platform open market by creating competition for supply side and confidence for demand side
4. Build capacity within cities
5. Help align EC policy & funds with market needs
6. Support longer-term competitiveness of EU industries to export worldwide

Tactical Shorter-Term Objectives

1. Expand signatories of the Mou
2. Speed the development of a common open platform for cities
3. Demonstrate real value from exploiting city data through use of urban platforms
4. Align capabilities across Industry sectors
5. Help bring supply & demand together; and find incentives / funds

DEMAND-SIDE ENGAGEMENT

Societal Needs

The outcomes we strive for within a portfolio of city service domains

- Societal needs and wants must be recognised as the starting point for city data service offering. To achieve a large-scale adoption and impact we need to:
 - Take human behaviour and needs as seriously as technology;
 - Understand which services and data are needed to solve social problems and drive innovation;
 - Identify what makes data and services more accessible to users;
 - Gain understanding of what influences user's experience while interacting with services provided (e.g. usability, feeling of security and trust);

Outcome

- Requirements to deliver new digital services that will address the **societal needs** of cities in a positive manner that relates to political narratives

DEMAND-SIDE ENGAGEMENT

Services & Business Models

The operational basis by which data is consumed to add tangible value to key city stakeholders

- Providing tailor-made data services requires careful targeting and needs assessment of users. To achieve a large-scale dissemination and impact of services we need to:
 - Create new partnerships that could allow the creation of new potential and cost-effective beneficial services that could be rolled out across cities of different sizes;
 - Understand under which context users may use or request a service;
 - Provide tailor-made data services which careful targeting and needs of users and businesses;
 - Explore use cases where data is used to deliver different forms of value.

Outcome

- Requirements to new profitable **business models** and the development of an increase range of new and engaging **services** in the smart cities

DEMAND-SIDE ENGAGEMENT

City Data

The 'fuel' that offers an exciting new city narrative

- The urban platform is the foundation for widespread exploitation of data. To achieve a large-scale dissemination and impact of services we need to:
 - Perform a city data mapping exercise to develop a picture of the data landscape, including: sources, volume, variety, temporal factors and sensitivity;
 - Define data licensing and ownership policies;
 - Define Terms and conditions to exploit data to full effect;
 - Understand the architectural features of city data;
 - Set city data and metadata quality requirements;
 - Explore the vulnerability aspects of city data (e.g. volunteered citizens data);
 - Identify data usability and reusability requirements for humans and machines.

Outcome

- Requirements to provide all city data stakeholders ready access and delivery of all city data that unpins the decision making process in smart cities

DEMAND-SIDE ENGAGEMENT

Urban Platform

The means to configure, share, and interpret exponentially increasing volumes

- Urban platform is the foundation for widespread exploitation of data. To create it we must:
 - Use city data and open platforms to mobilise collective knowledge and innovation in smart cities;
 - Build partnerships to deliver holistic and interoperable solutions;
 - Identify integrated approaches to design and service delivery which ensures that services fit together and that synergies can be exploited;
 - Manage the data in a way that ensures its integrity and compliance with data protection regulations;
 - Ensure the platform is able to accommodate additional functionality at later stage at a fair and transparent cost.

Outcome

- Requirements to create an open urban platform that will be recognized as being better and as outperforming competitions with regards to city, human and business needs

DEMAND-SIDE ENGAGEMENT



Infrastructure

The base level connectivity that supports the platform

- Urban platform is the foundation for widespread exploitation of data. To enable it we must
 - Identify what ICT infrastructure is needed citywide to support the urban platform
 - Map out existing ICT system resources across cities in order to identify those resources with the greatest potential for reuse, identify gaps and provide the foundation for a strategy to fill them;
 - Set up governance processes and usage policies for ICT infrastructure in order to maximize asset reuse by city partners;
 - Define reasonable service level agreements to guarantee scalability requirements.

Outcome

- Requirements to deliver the backbone **infrastructure** which will be used to capture the opportunities of digital technology and data to enable transformation.