

EIP URBAN PLATFORMS

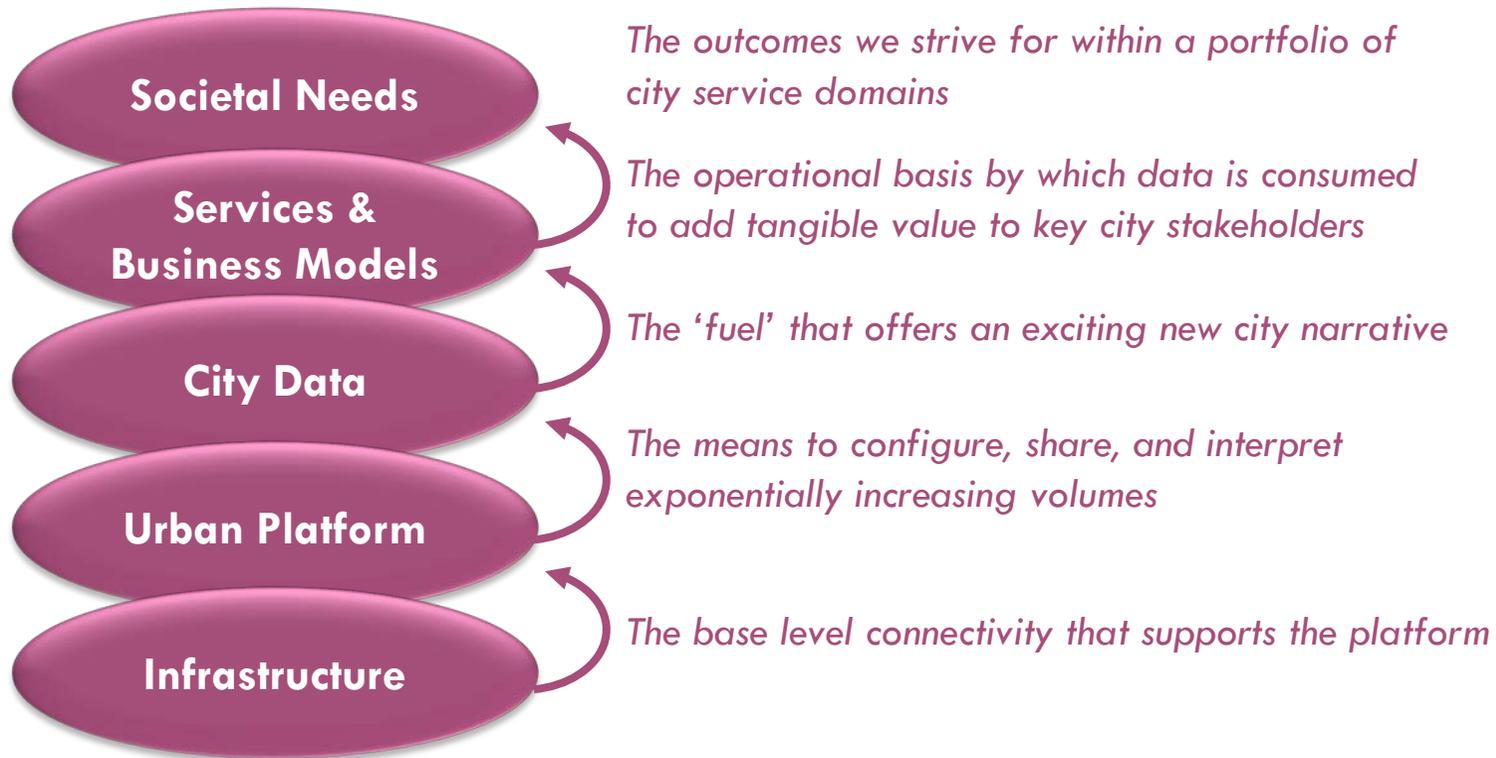
DEMAND SIDE
ENGAGEMENT STREAM

03rd May 2016

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URBAN PLATFORM REQUIREMENTS

THE INITIATIVE WILL CONNECT ACROSS THE STACK



We take a **city-needs-led** approach to requirements engineering

THE INITIATIVE WILL CONNECT ACROSS THE STACK



We take a **city-needs-led** approach: not the “tail wagging the dog”

THE APPROACH TO PLATFORM REQUIREMENTS SPECIFICATION

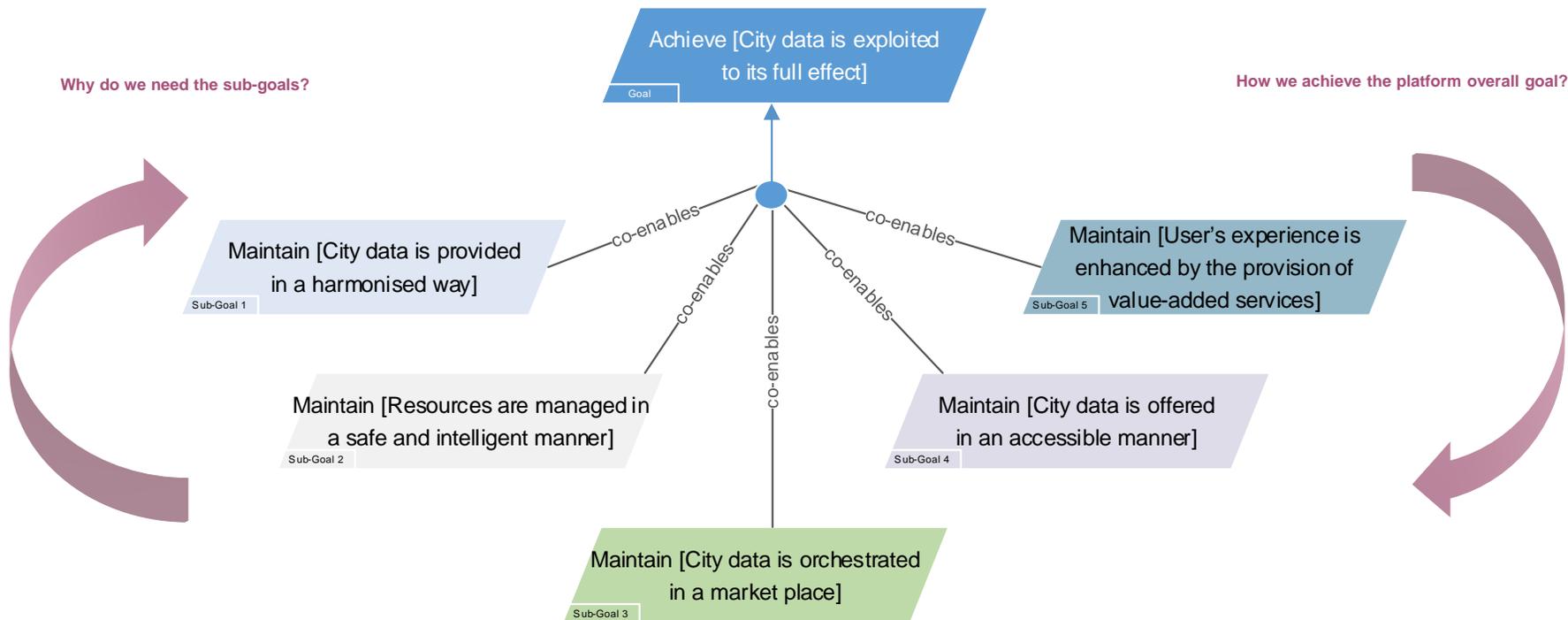
➤ Smart Cities Applications

Smart Transport, Smart Waste & Recycling, Smart Energy, so on...

➤ Overall Goal

"Exploiting the value of city data through urban platforms"

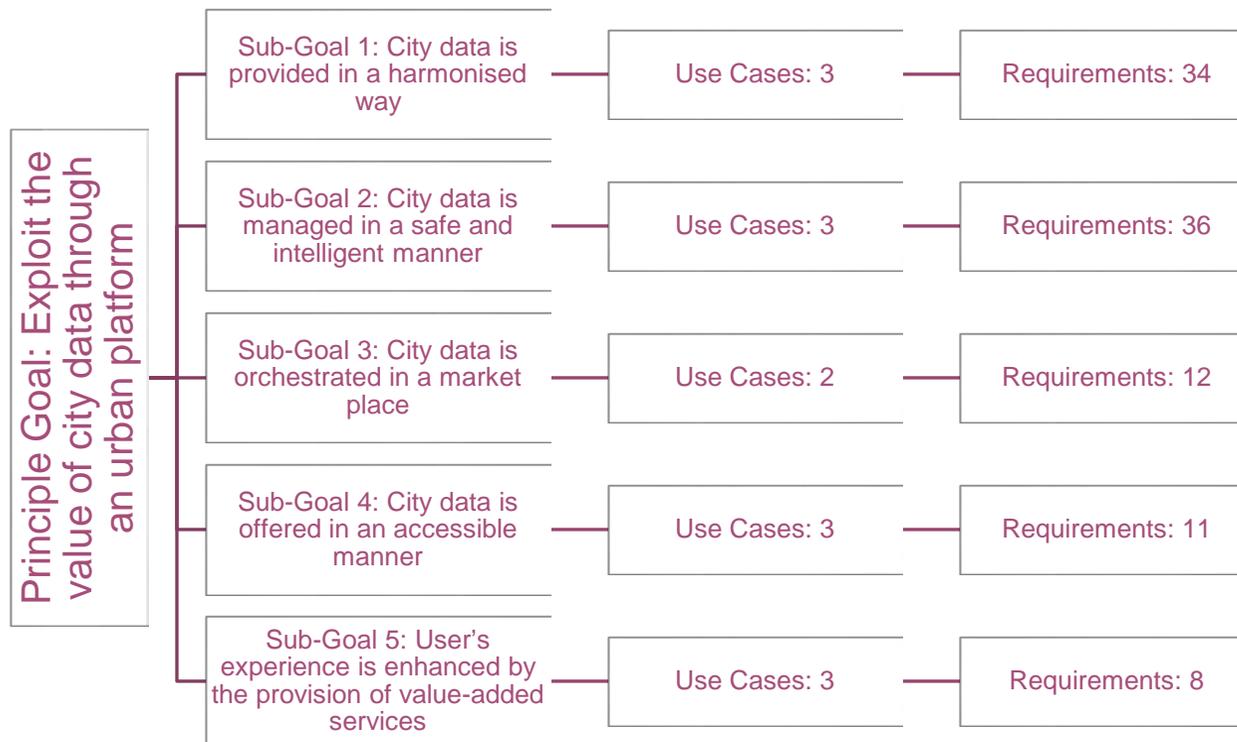
➤ From High Level Goals to Sub-Goals



THE APPROACH TO PLATFORM REQUIREMENTS SPECIFICATION

➤ From High Level Goals to Use Cases to Requirements Specification

- Use Case: Implementable action to achieve a goal
 - Typically defines the system boundary and the interactions between a role (known in the Unified Modeling Language – UML - as an actor) and the system



THE APPROACH TO PLATFORM REQUIREMENTS SPECIFICATION

➤ How cities can use the requirements specification document

- This document is to be used as a guiding reference for the development of cities own platform specifications.
 - It is based on a modular goals-oriented requirements engineering approach which provides requirements traceability

- To extract the full value of this document cities should:
 1. Identify the priority service outcomes that the city seeks to achieve to steer the overall prioritisation of urban platform development – what are your specific goals?
 2. Perform a city data mapping exercise to develop a picture of the data landscape, including: sources, volume, variety, temporal factors and sensitivity, data licensing and ownership policies.
 3. Map out existing ICT system resources across the city in order to identify those resources with the greatest potential for reuse, identify gaps and provide the foundation for a data strategy and technology plan to fill them.
 4. Identify the requirements within this document that nest suit the city needs - alongside any other emerging requirements – and refine and prioritise them in accordance to their data strategy defined in step 1 and 2.

THE APPROACH TO PLATFORM REQUIREMENTS SPECIFICATION

➤ How cities can use the requirements specification document

Software Requirements Specification for Urban Platforms (EIP Project)

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2.4.4 Functional Requirements

Req. ID	UC. ID	Description	Priority	Domain
FREQ-28	UC4	A minimal set of identifying information/metadata concerning data publication submission must be recorded.	Must	Business Needs, Platform
FREQ-29	UC4	Stores and tracks versions of data—Links/connections between versions are created and maintained.	Must	City Data, Platform
FREQ-30	UC4	Converts data to accepted file formats	Must	City Data, Platform
FREQ-31	UC4	Keep sensitive information secured and accessible only to authorized users	Must	City Data, Platform
FREQ-32	UC4	Keep user's personal information protected	Must	City Data, Platform
FREQ-33	UC4	Keep city data and meta-data secured	Should	Platform Needs
FREQ-34	UC4	Enable privacy preserving mechanisms associated to data	Should	Platform Needs
FREQ-35	UC4	Model data in accordance with defined standards	Could	City Data, Platform
FREQ-36	UC4	Support the use of ontologies and semantic modelling of city data	Could	City Data
FREQ-37	UC4	Support database-level provenance annotation	Should	City Data
FREQ-38	UC4	Support data-level provenance annotation	Should	City Data
FREQ-39	UC4	Enable data to be encrypted	Should	Platform Needs

5. Cities can create their own specification document in their own language and refer to the requirements of this document by using the unique identifier of the requirements (which signals to providers the similarities and deviations from the core set)

6. Determine what ICT infrastructure and sets of requirements are needed citywide to support the urban platform