

SMART CITIES

Draft Official Position

Item 5.1

UITP Policy Board, April 2014

OBJECTIVES

- Raise awareness of smart cities concept and position the public transport sector strategically within it.
- Make recommendations to accelerate the market uptake of smart city solutions with public transport as the backbone.



Draft paper was prepared by the Sustainable Development Commission and shared with the Information Technology and Innovation Commission, EU Committee, Organizing Authorities Committee, Combined Mobility Platform, Transport Economic Commission and Transport & Urban Life Commission.

STRUCTURE

1. Introduction – a definition of a smart city
2. Challenges, opportunities and drivers
3. Smart urban mobility
4. Smart governance - the foundations of a smart city
5. Recommendations



1. INTRODUCTION

- A smart city uses ICT to deliver better city services in real time – improving quality of life and making cities more sustainable
- ICT is an enabler – bring around the right governance and in the way that cities are run and operate will be more important.
- Opportunity for significant investment into the public transport sector



2. CITIES: KEY CHALLENGES



Cities need to make smart investments in infrastructures and technologies to manage these challenges

2. SMART CITIES ARE EFFICIENT CITIES



Focus on improving quality of life and sustainability - economic case is driving change the most

3. EVOLUTION OF SMART MOBILITY

Maturity model of smart mobility based on Arthur D Little study: The future of urban mobility 2.0

1. Emerging:
Underdeveloped and uncoordinated mobility systems

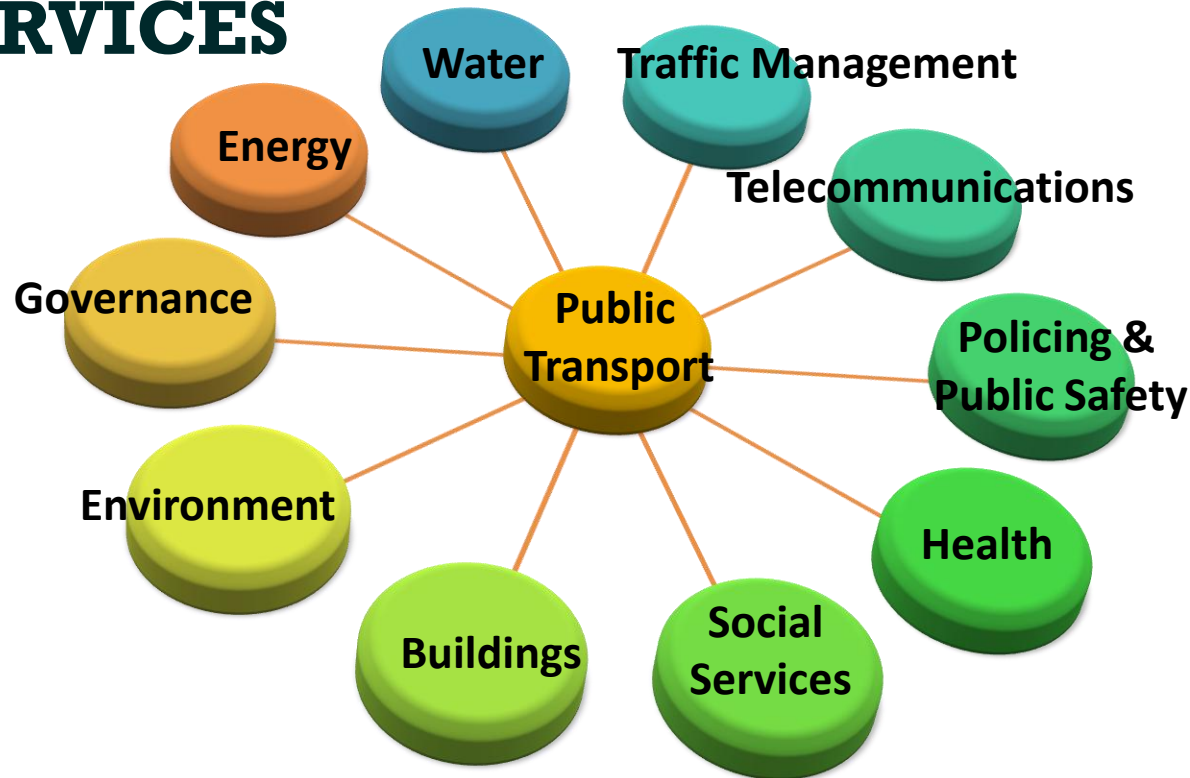
2. Individual:
Private vehicle focus with little synchronisation with the wider mobility network - limited data collected

3. Public: High share of public transport, walking and cycling with traffic management - data used to enhance integration

4. Networked mobility: Optimised integration of all modes of sustainable transport with advanced transport demand and supply measures to reduce share of individual private vehicles - total real time data collection, analysis, management and incidence response

1st Phase of the Smart City
Optimisation of individual city operations enabled by ICT

3. PHASE 2 OF THE SMART CITY: OPTIMISED AND INTEGRATED CITY SERVICES



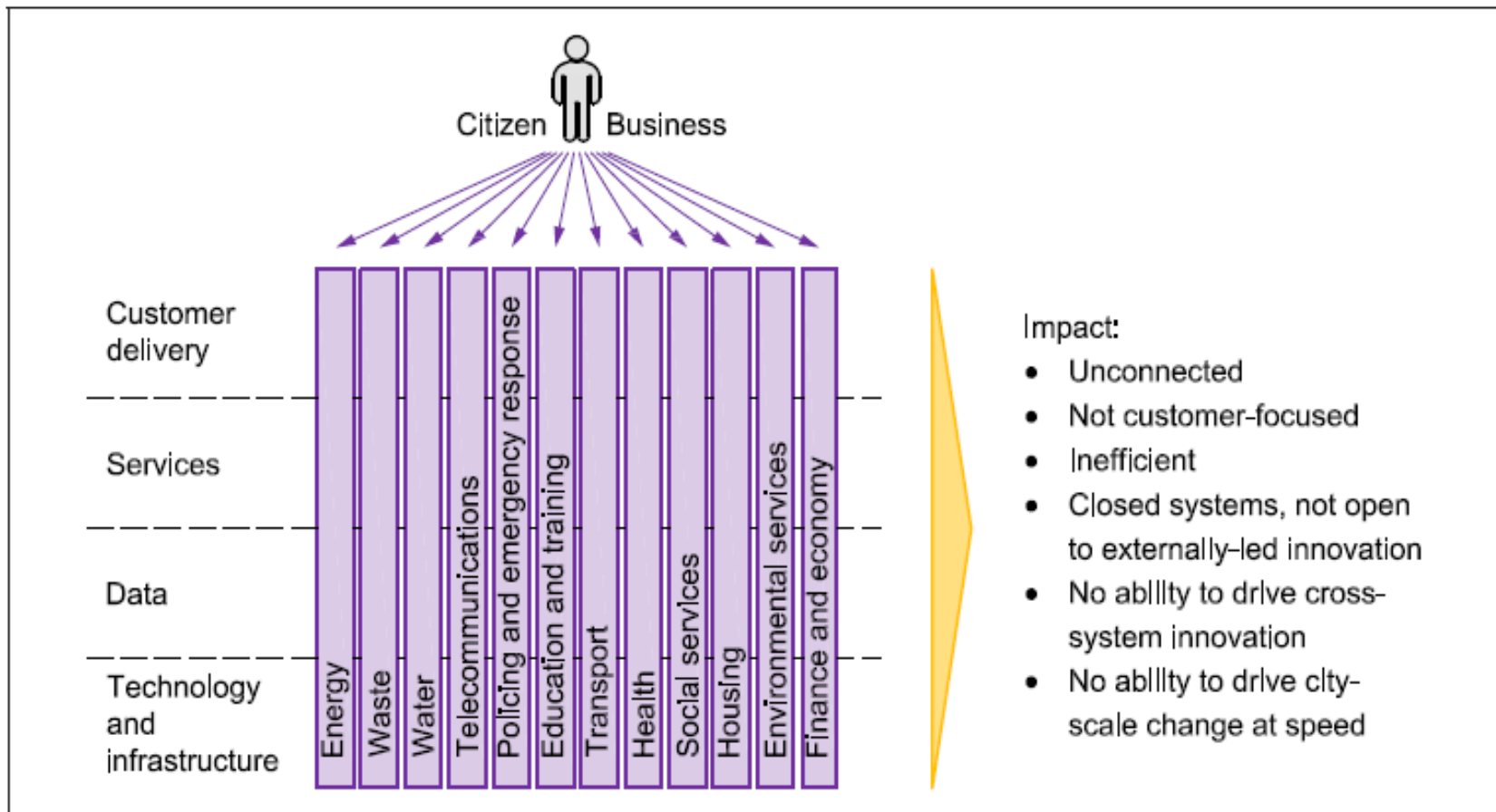
As the physical and non-physical infrastructure of public transport is spread across the city - opportunity to build on the innovations developed by the sector to start to coordinate all city services which are less advanced

The public transport sector can be a city wide integrator and the backbone and catalyst of the smart city

4. SMART GOVERNANCE

PAS 181:2014 Smart City Standard:

The **traditional operating model** will need to **change**



4. INTEGRATED OPERATING MODEL

PAS181: 2014

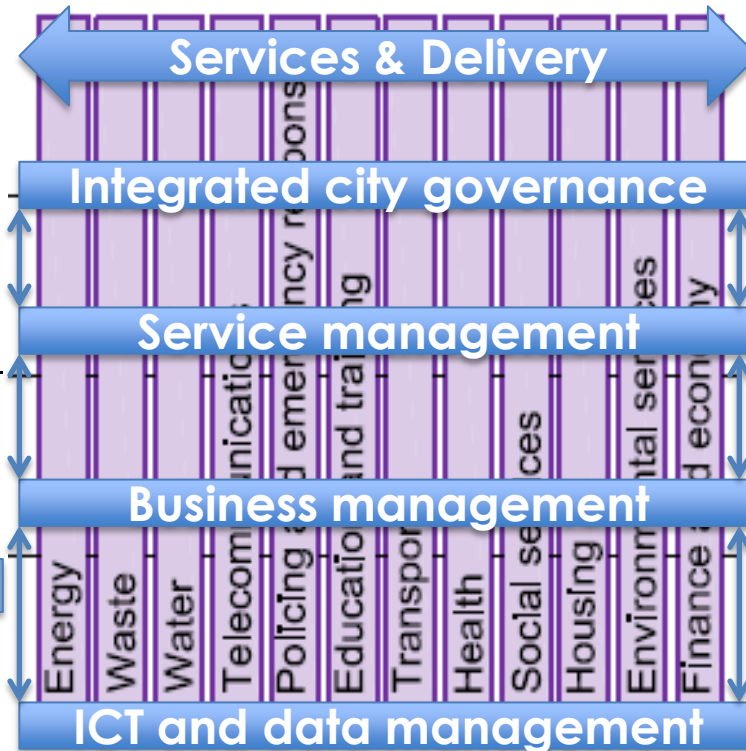
Smarter, more citizen focused services from "established" city delivery channels

City information marketplace



Internally driven innovation

Externally driven innovation



Impact:

- City data unlocked from individual silos
- Logical separation of data, service and customer delivery layers
- Externally-driven innovation:
 - Enablement of new marketplace for city information and services
 - Citizens, SMEs and social entrepreneurs enabled to co-create public services and create new value with city data
- Internally-driven innovation:
 - Improved and integrated service delivery
 - Resource optimization
- Ability to drive city-wide change at speed

Data

Technology and infrastructure

4. IMPORTANCE OF OPENING DATA

“Data is just like crude oil. It’s valuable, but if unrefined it cannot really be used. It has to be changed into gas, plastic, chemicals, etc., to create a valuable entity that drives profitable activity; so must data be broken down, analyzed for it to have value.”

- ICT will be an **enabler** to the creation of new operating models so “opening data” will have a big role to play.
- Public transport sector already provides a huge amount of real time information, tools and services
- Citizens themselves are also a major source of data.
- The key will be build on the public transport sector's success so that other city services (such as energy, waste, housing, emergency response etc) can be linked to tools and services developed for public transport



5. SUMMARY OF RECOMMENDATIONS

National level	<ul style="list-style-type: none">•Targets and supporting mechanisms•Test models, standards and procurement models•Knowledge transfer
Local level	<ul style="list-style-type: none">•Build your smart city on your public transport network.•Long-term political commitment•KPIs and monitoring•Smart information and knowledge•Develop collaborative forms of governance•Connect urban mobility onto the backbone of public transport•Opening data and standards
Business community	<ul style="list-style-type: none">•Work with the public transport sector to develop means to speed up the development of connected urban mobility and smart cities with public transport at its core
Public transport sector	<ul style="list-style-type: none">•Become a city integrator•Share information with relevant parties•Develop new ways of working and collaboration

KEY MESSAGES

- Smart cities presents a unique opportunity for investment in public transport
- A connected public transport system offers an investor ready, quick win smart urban mobility city solution that can lay the foundations for wider smart city initiatives.
- The first phase of the smart city will focus on optimising individual city operations, the second, more challenging phase will be through the delivery of integrated city services.
- The key to this through strong leadership, vision and strategy as well as new operating and governance models that drive innovation and collaboration across city services.
- The public transport sector can be a city wide integrator and be the backbone and catalyst of smart cities.

