

Development of the Smart Cambridge Platform

1. The City Deal has a primary emphasis on deriving economic benefit from improved local travel in the region.
2. A successful case was made that a proportion of the City Deal investment should target a 'smart programme' that will
 - a. Inform travellers about their travel choices
 - b. Support intelligent planning of the transport infrastructure
 - c. Provide the framework within which the digitally connected city will evolve
3. The approach taken seeks to take advantage of the unique strengths of the region, with collaborative working between the local authorities, suppliers and the University.
4. The evolving platform created with the support of the University is technically state-of-the-art with significant elements already in place. It is designed to grow as additional requirements emerge.
5. We have worked with other cities in planning our approach and aspire to a leadership position, while ensuring the practical developments target priority requirements in our region.
6. As it becomes better known that the Cambridge region is making progress in this area, we are attracting increasing engagement from other participants in the sector who will contribute, particularly the commercial developers of travel platforms but also local employers with an interest in informing their employees.

Overview of the Smart Cambridge architecture

The 'sensor network' is the essential underpinning of any real-time information system. Currently it includes position transmitters on our region's buses, blue tooth sensors on the road network and Air Quality sensors. It is important that our platform can incorporate new information as it becomes available. This list is expected to grow overtime.

Data collected is made available for analysis. This means for example, that we can measure the pre- and post- journey times for transport initiatives. Already we have better data than most cities.

The 'real-time' platform is the core of the digital infrastructure. It is what enables data (e.g. the positions of buses) to be collected and disseminated in a reliable way.

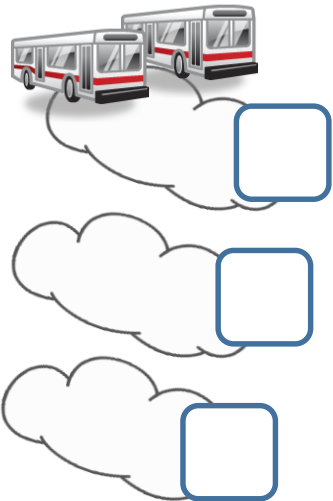
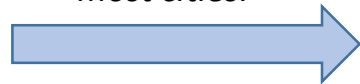
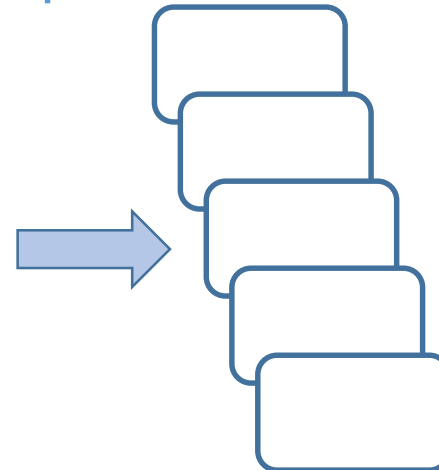
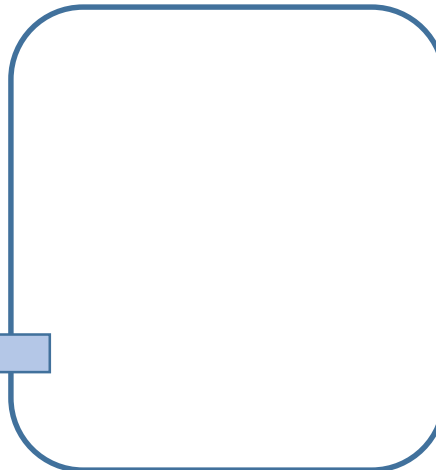
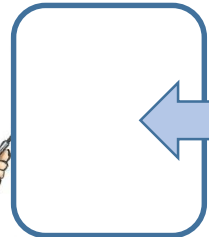
The architecture is enabling the provision of a range of travel applications to be available to the public, sourced from local organisations including the University, and commercially.

Real-time Data System and Digital Archive

Portfolio of Travel Applications

Public 'front door'

Planning 'back door'



Federated Sensor Networks

How our approach is intending to meet the goals

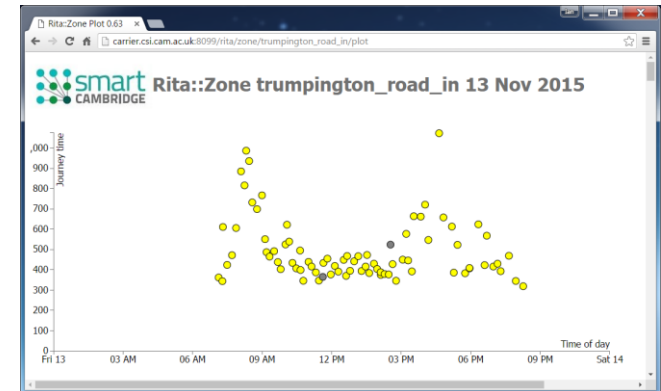
1. Informing travellers about their travel choices

A portfolio of 'apps' for use by the public will emerge. These will be provided by the Smart Cambridge platform itself, by collaborative contributors in the region including the University, and by commercial providers.



2. Supporting intelligent planning of the transport infrastructure

The Smart Cambridge Platform is already collecting the data necessary for a detailed practical analysis of the impact of transport schemes. The richness of the information will grow with time. The University will also exploit this data in for research analysis which may benefit the region.



3. Provide the framework within which the digitally connected city will evolve

There is ongoing discussion regarding other 'sensor' data that will inevitably become available in the region, from air pollution data to cycling and footfall sensors and other traffic data. The platform is designed from the outset to accommodate additional 'sources' as they become available.