

Date: 10 March 2016

Item: TfL Technology and Data Strategy

This paper will be considered in public

1 Summary

1.1 TfL is crafting a new, proactive and organisation-wide Technology and Data Strategy in order to realise the benefits that effective investment in this area can bring. This paper provides the Panel with an introduction to how our approach to technology and data is being re-shaped.

2 Recommendation

2.1 **That the Panel note the approach and action set out in this paper.**

3 Technology and Data at TfL

3.1 Technology and data underpin everything we do. From mission critical systems that govern the movement of trains to desktop computing to enhance productivity, technology has become the driver of all aspects of our business. Vast amounts of data is generated as a by product of all this technology and used to improve our services.

3.2 There are many areas of our work where technology implementation has driven clear operational, financial and customer benefits. Modern signalling allows more frequent train services; vehicle location systems on buses allow better operational management as well as better customer information; providing station staff with mobile devices has given them access to tools to better support customers. Our customer information is seen as world class. In some areas, such as contactless ticketing, we have a leadership position and have changed both the payments and transport industries worldwide.

3.3 Likewise, our exploitation of data has also produced results. Our open data policy has enabled better customer information with hundreds of third party apps built by an independent developer community. Our work on Big Data, combining ticketing and operational data, is informing planning and customer support. Predictive analysis of faults is enabling a better maintenance regime in some areas of the business.

3.4 Nevertheless, we realise that much more remains to be done. There are opportunities for more efficient, lower cost operation, more capacity and changes to customer behaviour that can all be enabled by better exploitation of technology and data. To realise the benefits that effective investment in this area can bring, we are crafting a new, proactive and organisation-wide Technology and Data Strategy.

4 A new strategy

4.1 Our new strategy consists of four priority areas:

- Simplified business processes
- Commercial outlook – cost/revenue/contracts
- Highly capable and accountable people
- Innovative and productive partnerships

4.2 **Simplified business processes:** We will simplify our underlying processes to help reduce the complexity of some of our technology requirements. This includes moving away from bespoke solutions where more straightforward approaches will do just as well. Agile development will be used wherever possible to achieve faster results. Attention will focus not just on the acquisition of technology but also on its operation to provide our people and customers the technology support they need.

4.3 **Commercial outlook:** We will seek to improve our overall commercial approach to technology, making build versus buy decisions early and engaging with the market where sensible. Many technology projects suffer from an inherent inability to define our requirements to match a fast-moving industry. We will incorporate the resulting need for flexibility into our commercial processes to achieve the best outcomes. We will also seek to earn revenue from exploiting our technology externally.

4.4 **Highly capable and accountable people:** We understand that success in technology and data hinge on having the right people and will adapt our approach to recruitment and retention to address this. We will also provide our people the appropriate support for collaboration and creative thinking in this area.

4.5 **Innovative and productive partnerships:** We are already forging new partnerships with technology and data organisations to foster innovation and speed-up delivery. These partnerships are different to a standard supplier-client relationship; we might buy, earn, share and/or own products or data with our partners to address business problems together in a new, collaborative environment. Our open data policy has already enabled a thriving app industry that provides our customers a service at minimal cost to us.

4.6 In some areas this new approach is already starting to produce results. In telecommunication networks, for example, we are already engaged in a new procurement to replace contracts coming to the end of their lives. This is being done in a manner that will not just allow but force consolidation across our fragmented landscape. Substantial cost savings will follow from this. The same approach will be extended to other areas of technology and data.

5 Conclusion and next steps

5.1 We have brought together a number of experts from across the organisation to form a collaborative community to develop our new Technology and Data Strategy. The first draft of this will be available by the end of March 2016. More detailed work will flow from this initial expression of our new strategy.

List of appendices to this report:

None

List of Background Papers:

None

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