



A New Era of Smart Cities

How BSI helped the
Future Cities Catapult to
create a more informed market

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The **challenge** of a new market

Smart Cities have been a hot topic in local authority planning for the last few years. There's huge promise in the central idea: that a city can prosper by learning how to work better for its citizens. Data, technology and new solutions can transform services, make the city more sustainable and enhance citizens' quality of life.

City planners and many other participants are keen to do more towards the development of Smart Cities. But traditionally, there had been no clear guidance about where to begin. Large suppliers such as energy companies made complex, far-reaching proposals and tiny start-ups promised innovative ideas, but didn't know how to access the market, while local communities were often impatient for improvements. For the local authorities and city planners –

who are always under cost and time pressure, and who had little experience of transforming services with technology – it was hard to know where to start.

Different cities, and different teams within a single city, often work on their own solutions, trying to solve problems in different ways. The result was a fragmentation of contracts and negotiations, with no overarching guidance or expertise.

It was a bit like the Wild West: a promising but chaotic new frontier. There was an opportunity to bring order, specifically through demand aggregation. The time was ripening for an alternative approach.

The City Standards Institute's **solution**

The City Standards Institute (CSI) was set up as a collaboration between BSI and Future Cities Catapult, one of nine world-leading organizations established by Innovate UK, the UK Government's innovation agency. Future Cities Catapult's mission is to advance urban innovation, to grow UK companies and to make cities better.

The CSI mission was to bring together local government, businesses, academia and innovators to identify and address the common challenges that cities face.

The Institute chose to create a series of PASs. They selected a small number of specific topics to pursue, focusing on digital strategies and how a Smart City should operate. Crucially, these topics were particular challenges that would benefit from clearer decision-making frameworks; they were chosen for the impact that an agreed approach might have. Future Cities Catapult and BSI worked jointly to attract a range of stakeholders. They then facilitated the discussions together, ensuring that all voices were heard, and that no single interest dominated.

BSI helped to document the discussions, build consensus and clarify what had been agreed. Ultimately, the participants all felt a sense of joint authorship and ownership of the conclusions.

“ A PAS represents the fast-track approach, with concrete results in 9-12 months. Technologies are changing all the time, and if we had waited for formal standards, they could have been out of date before the ink was dry. ”

Matt Wood-Hill,
Cities Standards Coordinator,
Future Cities Catapult



The **outputs** of the CSI project

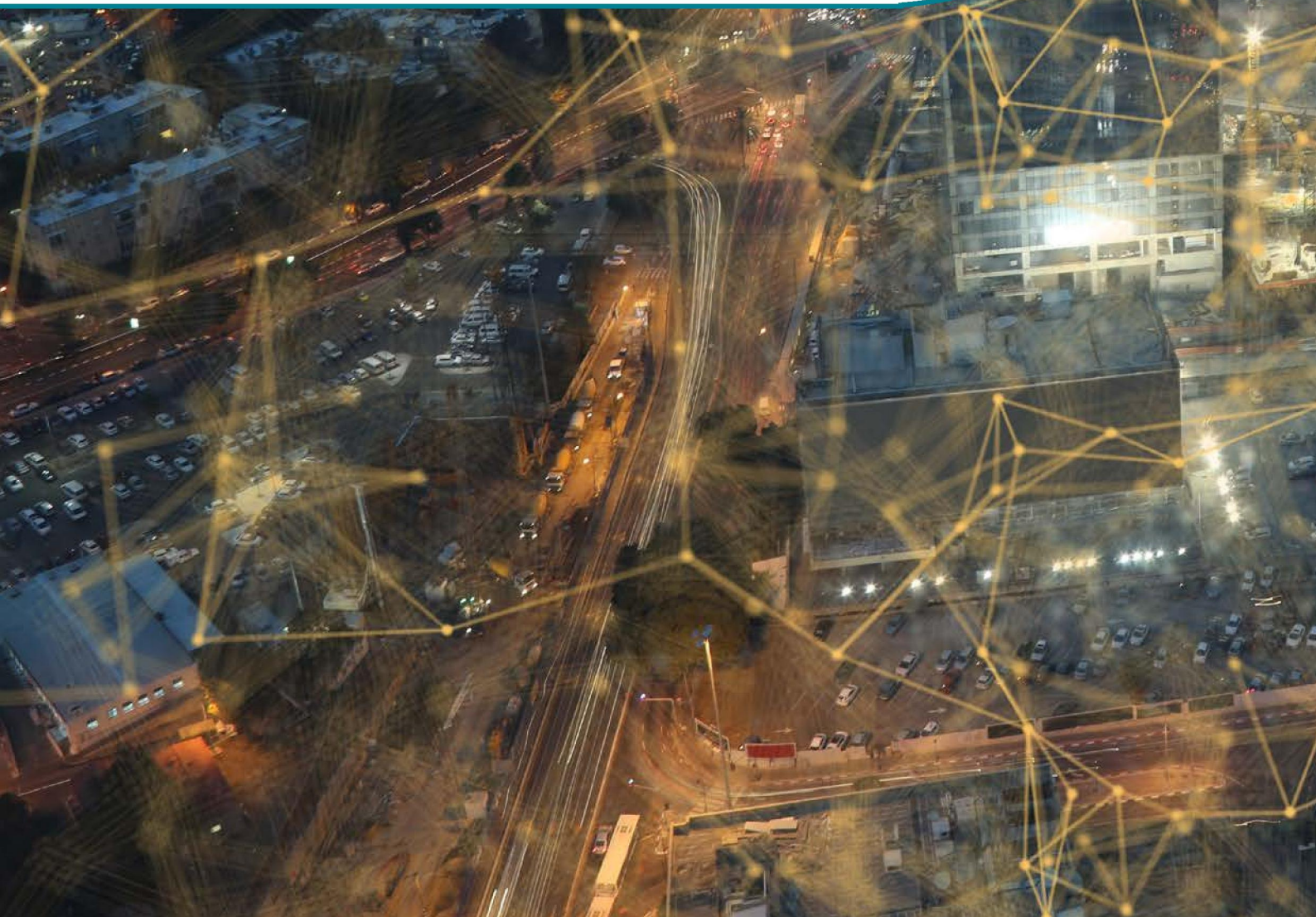
CSI chose the PAS approach because they wanted to map out a clear way forward rather than try to introduce rules and regulations. During the early development stage, the PAS brought stakeholders together, and good practice emerged from the subsequent conversations.

The collaboration of Futures Cities Catapult and BSI has produced:

- 1 **PD 8100** Smart cities overview. Guide
- 2 **PD 8101** Smart cities. Guide to the role of the planning and development process
- 3 **PAS 181** Smart City Framework – Guide to establishing strategies for smart cities and communities

BSI Smart Cities Portfolio

- 4 **PAS 182** Smart city concept model – Guide to Establishing a Model for Data Interoperability
- 5 **PAS 183** Smart cities – Guide to establishing a decision-making framework for sharing data and information services
- 6 **PAS 184** Smart cities – Guide to Developing project proposals for delivering smart city solutions
- 7 **PAS 185** Smart Cities. Specification for establishing and implementing a security-minded approach



The CSI experience shows **five benefits** of the PAS approach

- 1 A PAS builds trust in your organization. For CSI, a membership organization, the members found the PASs genuinely valuable in their innovative work; and it enhanced the reputation of CSI as being proactive, member-driven and at the heart of important debates.
- 2 A PAS can help you generate more business. It gives you a badge of authority for your innovations. In the specific case of CSI, they shaped the emerging market for services in Smart Cities by opening up the process to a wide range of stakeholders, all of whom felt a sense of inclusion as they came together to demonstrate 'what good looks like' for their market.
- 3 PASs help you take a leadership role in your sector. In CSI's case, they gave market participants in a new area a common language and framework for exploring how to work together. As a result, the market is more symmetrical in terms of knowledge and understanding. All the participants are benefitting; the planners
- 4 feel more confident about negotiating, while newer participants know who to talk to. Finally, communities have more trust that their data will be protected
- 5 Finally, PASs raise your industry and media profile. For example, CSI developed PAS 183 (a guide for working out how to share data and information services), which has readied local government for the challenge of GDPR and has led the way in terms of a sectoral response to the legislation.

A PAS helps you get results faster than any other type of standard. **"A PAS represents the fast-track approach, with concrete results in 9-12 months,"** says Matt Wood-Hill, City Standards Coordinator at Future Cities Catapult. "Technologies are changing all the time, and if we had waited for formal standards, they could have been out of date before the ink was dry. In this field, best practice hasn't had the time or stability to develop; we wanted to hammer out good practice."

The **outcomes** - how PASs have changed the Smart City landscape

Ultimately, PASs are helping to shape a more innovative and informed market. Because good practice has emerged from a broad range of participants, with no single organization dominating the discussion, the market stakeholders have a sense of reassurance and trust that was lacking before. Local authorities and others have a clearer sense of how to develop their Smart City strategies, what to prioritise, where to start, what data to gather and how to protect it.

They've also given the participants on the demand side a common approach. As more devolved administrations are established, and councils start working more closely

together, they will face emerging challenges around the use of technology and data in delivering urban services. Having this common guidance in place will give them much more organizational flexibility.

And looking to the future, there may be opportunities to extend the PAS guidance internationally, thus boosting the reputation of the sponsoring organization still further. Several PASs developed by BSI are now being adopted globally, meaning that the UK remains at the forefront of this area of standards development.

City Standards Institute

City Standards Institute, was set up as a joint initiative of the British Standards Institution (BSI) and the Future Cities Catapult, was set up to bring together cities and key industry leaders and innovators to work together in identifying the challenges facing cities, providing solutions to common problems and defining the future of smart city standards.

About PAS

A PAS (Publicly Available Specification) is a consensus-based standardization document which any organization can initiate in collaboration with BSI.

Creating a PAS can help you to:

- ✓ **Build trust in your organization** – by setting the bar for good practice
- ✓ **Win more business** – by giving your innovations a badge of authority
- ✓ **Take a leadership role in your sector** – by helping to resolve its strategic issues
- ✓ **Get to market faster** – by creating a rapid route to standardization
- ✓ **Raise your industry and media profile** – by linking with BSI's respected brand

Lead your sector by developing a PAS
Find out more: bsigroup.com/PAS

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