# How BSI created a growing series of Smart City PASs

## Creating sustainable cities that invest in the future

### The story at a glance

- By 2050, over two-thirds of the global population will live in cities. Even today, the rise in numbers is putting cities under strain, posing a risk to their sustainable growth and to the health and wellbeing of their citizens.

- Smart cities are critical in solving these problems, but a fragmented approach in the UK was severely hampering their development.

- The Department for Business, Energy and Industrial Strategy (BEIS) worked with BSI to develop a standards strategy for smart cities in the UK that would define a best practice framework for this future-critical industry.

- The publication of a fast-track standard - PAS 181 Smart city framework - gave city leaders a clear guide to help them transform their city's ability to meet its future challenges and deliver its future aspirations.

- PAS 181 later became an international standard, extending BSI and BEIS's reputations as leaders in their fields, and keeping the UK at the forefront of smart city standards development.

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## The starting-point

Over half the world's population already live in cities. And the numbers keep rising. By 2050, the UN predicts that over two-thirds of the world's 9 billion people will be city-dwellers.

And the trend shows no signs of stopping: by 2050, the UN predicts that over two-thirds of the world's 9 billion people will be living in cities.

Yet cities increasingly need to be able to do more with less; to compete in a globally interconnected economy; and to provide for the well-being of their citizens in a truly sustainable way.

**If the world is to respond effectively to the critical challenges it faces, smarter cities are essential.**

## The challenge

In the UK, eight out of ten people are city-dwellers – putting pressure on employment, social care, the climate, housing and transport. City planners and many others were keen to improve sustainability and quality of life by developing smart cities. But as late as 2017, **there was no clear guidance about where to begin.**

Different cities (and even different teams within a city) often tried to come up with their own solutions, without any collaboration. The result was a fragmentation of contracts and negotiations, with no overarching guidance or expertise.

**BSI and BEIS saw the importance of bringing order. As a body that helps to promote competitive markets, BEIS joined forces with BSI to bring together local government, businesses, academics and innovators to identify the common challenges that cities face and how to tackle them.**

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## The solution

**The answer was a series of Publicly Available Specifications (PASs) – including PAS 181 Smart City Framework.**

This would provide a clear and consistent guide that would help decision-makers to develop, agree and deliver smart city strategies.

Developed through BSI, it would draw on the collective experience of a range of stakeholders, **ensuring that all voices were heard and that no single interest would dominate.**

BSI then began its established and independent process for developing a PAS. It began by convening a wide range of stakeholders to form a steering group. There were representatives from 18 organizations, including the Academy of Urbanism, Balfour Beatty, City Protocol, Fujitsu, Connected Places Catapult, the Technology Strategy Board and four city councils.

This group developed the PAS, commenting on drafts, resolving technical issues and submitting it for public consultation before reaching consensus.

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The Smart City Framework had four components:

1. **Guiding principles**: a statement of values which city leaders can use to steer business decision-making as they seek to implement a smart city strategy

2. **Key cross-city governance and delivery processes**: a set of practical guidance notes on how to address city-wide challenges of joining-up across city silos

3. **Benefit realization strategy**: guidance on how to ensure that the intended benefits of a smart city strategy are clearly articulated, measured, managed, delivered and evaluated in practice

4. **Critical success factors**: a checklist of issues which cities should regularly monitor to ensure that they are on track in the successful delivery of their smart city programmes, and that they are managing the major strategic risks effectively

After the final document was approved by BSI's Director of Standards, **PAS 181** *Smart city framework – Guide to establishing strategies for smart cities and communities* was published.

"To make the most of the global opportunities from smart cities, we need to structure the knowledge that can help city leaders, communities, innovators and technology providers recognise what good looks like and how these concepts can bring benefits for all," said Scott Steedman, BSI's Director of Standards. "I'm delighted that the UK is the first country to publish a set of standards."

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## The result

**As the first country to develop Smart City standards, the UK established global leadership to evolve and invest in a sustainable smart future.**

"There is huge potential for the UK to be the world leader in smart cities," said David Willetts, the UK Minister for Universities and Science at the time. "These standards will help to address barriers to implementing smart city concepts and promote uptake of smart city solutions at scale."

PAS 181 established a good practice framework for city leaders to develop and deliver their smart city strategies. **This can transform their city's ability to meet its future challenges and deliver its future aspirations.**

What's more, PAS 181 is now part of **a growing series of Smart City PASs**. Together, they are helping to enable innovation and shape a more informed market.

Several of the PASs are now being adopted globally. PAS 181 became an international standard (ISO 37106) in 2018 – **extending BSI and BEIS's reputations as leaders in their fields, and keeping the UK at the forefront of smart city standards development.**

## About the Department for Business, Energy & Industrial Strategy (BEIS)

The Department for Business, Energy & Industrial Strategy (BEIS) helps ensure there are great places for people to work and for businesses to invest, innovate and grow in the UK. It maximizes investment opportunities to bolster UK interests, promotes competitive markets and ensures the UK has a reliable, low cost and clean energy system.

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# Why BSI?

BSI lead the world in standards and our trademark Kitemark™ is recognized globally as a symbol of quality and safety. For a standard to be accepted and adopted by Governments, Industry, trade associations and businesses of all sizes it must be built on consensus and credibility. The PAS is developed through a rigorous consensus based process, evolved by BSI over more than 100 years.

# Our aim

We aim to improve the quality and safety of products, services and systems by enabling the creation of standards and encouraging their use.

New standards are being developed all the time as new sectors, markets and business models emerge. The sooner these standards are in place, the faster and more efficiently growth occurs.

## Take the lead in your sector

Learn more about what your business will gain by sponsoring a PAS, visit:
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Or get in touch with us to discuss creating a PAS today!

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