Technology Strategy Board
Driving Innovation

Future cities demonstrator

COMPETITION FOR LARGE-SCALE DEMONSTRATOR PROJECT FUNDING
JUNE 2012

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Summary

The Technology Strategy Board will invest up to £25m in a large-scale demonstrator for future cities.

The project will demonstrate at scale, and in use, the additional value that can be created by integrating city systems. The project will enable businesses to test, in practice, new solutions for connecting and integrating city systems, and will allow UK cities to explore new approaches to delivering a good local economy and excellent quality of life, whilst reducing the environmental footprint and increasing resilience to environmental change.

This will be a two-stage competition process. Cities will be invited to bid for funding to carry out a feasibility study and develop their demonstrator project proposal. Up to 20 grants of £50k will be available and will be funded at 100% of eligible costs. A requirement of the 100% public funding is that a publicly available report is produced on the results of the feasibility study.

In the second stage, cities will complete their feasibility study report and can also submit a proposal for the large-scale demonstrator. Up to £24m is available for the project. The demonstrator will attract 100% public funding of eligible costs.

To achieve the scale required to effectively test the value of integrating city systems, we intend to fund a single demonstrator project. A requirement of the 100% public funding is that the results of the demonstrator project are made publicly available and are widely disseminated.

This is a competition for cities. Stage 1 will open on **11 June 2012** and applications must be submitted by noon on **5 July 2012**. Feasibility study reports and full stage 2 applications must be submitted by noon on **14 November 2012**.

Background

Cities are vital to the future global economy. In 2008, for the first time in human history, more people lived in urban areas than rural. By 2050 more than 70% of the global population will live in cities. In the UK, cities are equally important. One third of the UK's total population lives in the ten largest urban areas.

Cities are more economically productive and have a lower carbon footprint per capita than their country average. But cities are also struggling with climate change, changes in population and demographics, congestion, healthcare and pressure on key resources.

To succeed in the future, city governments have to deliver economic activity and quality of life with a lower environmental footprint.

High-quality city infrastructure is essential to meeting this future need, but it is becoming increasingly clear that we cannot make fast enough progress by optimising the individual components and systems of the city. Innovation in integrated and city-wide solutions is required. We need to create city systems that maximise the benefits of big cities, whilst managing the downsides.

Over time there will be a large market for innovative approaches to delivering efficient, attractive and resilient cities. The UK is well positioned to exploit this growing market. We have world-leading companies in project management, engineering, architecture, energy and transport systems, communications and the digital economy, finance, legal and insurance. Our ability to bring together the cluster of companies needed to design, finance, risk manage and execute large infrastructure projects makes the UK a major global centre for such projects. The UK has a world-class science and research base that supports the development of innovative solutions and provides a talent pool for UK and global firms.

City-wide integration is a complex challenge with many risks. Wide take-up of new solutions will require extensive evidence of performance in use. A large-scale demonstrator, covering a substantial population and a significant urban area, will help both business and city governments to test ideas and build confidence.

A successful demonstrator project will support UK-based businesses to develop new approaches and solutions that can be exported around the globe, and help UK cities to plan and build for the challenges of the future, improving their international competitiveness.

Scope and challenge

We are inviting proposals to set up a future cities demonstrator. The purpose will be for a city to work with suppliers to test the additional value that can be created by integrating city systems to a level not previously achieved in the UK. This will allow cities to explore new approaches to delivering a strong local economy and excellent quality of life for its citizens, whilst reducing the environmental footprint and increasing resilience to environmental change.

Cities have different challenges, opportunities and ambitions, different infrastructure, and different portfolios of investment projects. We are not specifying the challenges that should be tackled, the particular systems that should be integrated, or the approach that should be taken. However, the ambition and scope of the demonstrator proposal, and the potential for wider deployment of tested and proven solutions to other cities in the UK and globally, will be important assessment criteria. Other key criteria in determining the successful demonstrator will include its potential to provide a test bed for innovative SMEs; its role in addressing particular challenges of the city; potential innovations in how services are delivered; and clear leverage of existing or current investment in city systems.

Examples of the major systems of a city include health, energy, water, waste, communications, buildings and transport. Funding of £24m is available through 2012-13 and 2013-14 to develop the demonstrator.

The demonstrator will need to be of a sufficient scale to provide convincing evidence of the value and performance in use of the systems being trialled. We would expect that the target city or urban area would have a population in excess of 125,000 to be a realistic demonstration site. To create a demonstrator with sufficient scale and impact, we plan to fund only one.

It is likely that a successful demonstrator would consist of many linked projects, but they would all relate to the same city or urban area.

This competition is for cities or equivalent local authorities responsible for an urban area. We believe that the commitment of the city government to the demonstrator is essential for success. We will not fund proposals led by business or academic groups. Cities will need to work with many partners to deliver the demonstrator, but we expect them to be in the lead.

The host for the demonstrator does not have to map exactly onto the geographic area for which the applicant is responsible. The demonstrator may be more practical and more valuable if it covers an urban area rather than a specific city, or a part of a city or urban area. Where there is more than one authority involved, the applicant authority will be expected to have agreed the proposal with the other authorities.

We are particularly interested in proposals that:

- show the integration of multiple systems in novel ways

- tackle specific challenges in the host city

- have the potential for a large impact on the economy, quality of life and environmental impact of the city

- combine recent or current investment in city infrastructure with the demonstrator funding to create a more effective test environment

- provide a platform that allows innovative companies, particularly SMEs, to test their ideas

- offer the potential for innovations in how services are delivered

- have the potential for further development and use beyond the initial two years of funding.

We are specifically excluding proposals that:

- focus on improving the performance of individual city systems rather than on the integration of multiple systems

- use the funding to bridge resource gaps in existing projects

- are not led by a city government or equivalent.

Funding allocation and project details

Up to £1m will be made available for feasibility studies and the development of full proposals. Each feasibility study will receive £50,000 of public funding covering 100% of eligible costs. Feasibility studies will last three months. At the end of that time a report on the findings of the feasibility study must be made publicly available.

Up to £24m will be made available for a single large-scale demonstrator project. The project will be publicly funded at 100% of eligible costs.

The purpose of the funding is to enable a city to test the additional benefits of integrating city systems to a greater extent than is currently feasible. It is not to bridge gaps in available funding for existing projects or individual city infrastructure components.

It is a condition of the funding that the results of experiments and trials will be made publicly available and widely disseminated.

The grant must be spent in full by the end of financial year 2013-14. We recognise that the value of the demonstrator extends beyond this initial investment phase. The Technology Strategy Board will arrange for ongoing monitoring and collection and analysis of data through the Future Cities Catapult.

The grant for the demonstrator will be made to a city or equivalent local authority. It will be their responsibility to ensure that in working with commercial partners to deliver the demonstrator, all EU procurement and state aid rules are complied with.

Further information is available in the *Guidance for Applicants* (see the Competitions section of our website **www.innovateuk.org/competitions**) and at a briefing webinar that will be held for potential applicants on **22 June 2012**.

Application process

This is a two-stage application process.

Stage 1 – feasibility study and development of proposal

The competition will open on **11 June 2012**. The registration deadline is at noon on **28 June 2012** and applications must be submitted by noon on **5 July 2012**. All proposals will be reviewed by independent assessors. Successful applicants will be informed by **20 July 2012**. Feasibility study reports must be received no later than **14 November 2012**. This report must be suitable for open publication.

Stage 2 – large-scale demonstrator

Full applications must be submitted by noon on **14 November 2012**. All proposals will be assessed by an independent panel of experts. Applicants may be invited for interview by an assessment panel.

Further details can be found in the *Guidance for Applicants* for this competition, available from our website (see **www.innovateuk.org** under Competitions) after you have registered for this competition.

If you have any queries about the technical scope of the competition or the application process, please contact the competitions helpline on 0300 321 4357 or email competitions@innovateuk.org

More information

To apply for this competition you must first register with us. You can do this by going to our web page for this competition at **www.innovateuk.org** under Competitions. When you register you will get access to all the supporting information you need to read before you apply, including the *Guidance for Applicants* and the application form.

Competition helpline:
0300 321 4357

Email:
competitions@innovateuk.org

Publicity

As part of the application process all applicants are asked to submit a public description of the project. This should adequately describe the project but not disclose any information that may impact on intellectual property, is confidential or commercially sensitive. The titles of successful projects, names of organisations, amounts awarded and the public description will be published once the award is confirmed as final. Information about unsuccessful project applications will remain confidential nd will not be made public. E-mail pressoffice@tsb.gov.uk with any queries.

Key dates

Stage 1	
Competition opens	**11 June 2012**
Briefing webinar	**22 June 2012**
Registration deadline	**28 June 2012 (noon)**
Deadline for applications	**5 July 2012 (noon)**
Decision to applicants	**20 July 2012**

Stage 2	
Deadline for receipt of feasibility reports and full applications	**14 November 2012 (noon)**
Shortlisted candidates invited to panel interviews	**27 November 2012**
Panel interviews	**5 December 2012**
Decision to applicants	**January 2013**

The Technology Strategy Board is a business-led executive non-departmental public body, established by the Government. Its role is to promote and support research into, and development and exploitation of, technology and innovation for the benefit of UK business, in order to increase economic growth and improve quality of life.

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