

The role of the public sector in smart urban development – Sheffield's strategy

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Sheffield

570,000 people

1.8m+ city region population

70,000 students

30% of workforce aged under
30



DIGITAL
A Department of the Creative Digital Science in Sheffield

ART
A Department of the Creative Digital Science in Sheffield

MUSIC
A Department of the Creative Digital Science in Sheffield

BEER
The World's Best Beer City
A Department of the Creative Digital Science in Sheffield City Region



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Sheffield
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Advanced Manufacturing Research Centre



A Distinctive City

Attracting **major global investment** because of our world leading capabilities

£50m McLaren facility at AMRC

£20m Boeing's first factory in Europe



World class research institutions



University of Sheffield

- World top 100 institution
- Russell Group
- Research intensive
- Leading industrial collaboration with Boeing, Rolls Royce, Siemens and more

World class research institutions



Sheffield Hallam University

- 8th largest university in the UK
- World-class research in Computer Sciences, Healthcare Technologies, Materials and Engineering
- Heritage in art & design - Institute of Arts
- **80%** of SHU Arts and Design research is rated 'world-leading'



A vibrant city

- New spatial, economic, social, cultural and environmental vision for the city centre
- £480m Sheffield Retail Quarter
- Distinct and connected business and cultural districts



JAYWING



sheffield digital



The association for the people and businesses of
Sheffield's digital industries.

■ connect ■ represent ■ promote



**Cllr Olivia Blake
Deputy Leader
Sheffield City Council**

Portfolio Lead for Digital

“We recognise the importance of the digital sector in generating jobs and growth for the city, but also in helping to work with the public sector to enable residents to thrive.

Working with Sheffield Digital will enable us to build a coalition for Sheffield that can take the digital sector in the city to the next level.”

Building Sheffield's Digital Coalition – 'dotSHF'



The origins of a digital coalition for Sheffield

There was a strong ambition for Sheffield to be a leading Digital City

BUT, there was no agreed narrative about what this meant, what Sheffield's focus in the Information Economy was nor was there clear city leadership (that's not just the Council) on this.

HOWEVER, there is a thriving digital community in Sheffield doing awesome things across the creative and digital sector, digital skills and inclusion, all with a huge will to make the ambition meaningful.

THEREFORE, we needed to get some coordinated focus on amplifying the digital activity already happening in Sheffield so we could move the city off the cusp of a digital boom into the middle of one.

What is the coalition?

The **'we'** is everyone in the city who wants to contribute to building a Digital Sheffield - we call it **'dotSHF - Sheffield's Digital Coalition'**.

Much activity is already happening, and harnessing and amplifying this is a key part of the strategy.

The council as the key, democratic organisation should play a lead, enabling, facilitating and connecting role, but it cannot and should not try to do everything. This is important.

The **'we'** is about playing to our collective strengths as a set of individuals and organisations across the city. Achieving our digital ambition will be a team game.

The Coalition will not exclude those who want to help and the approach will provide an easy way for this to happen.



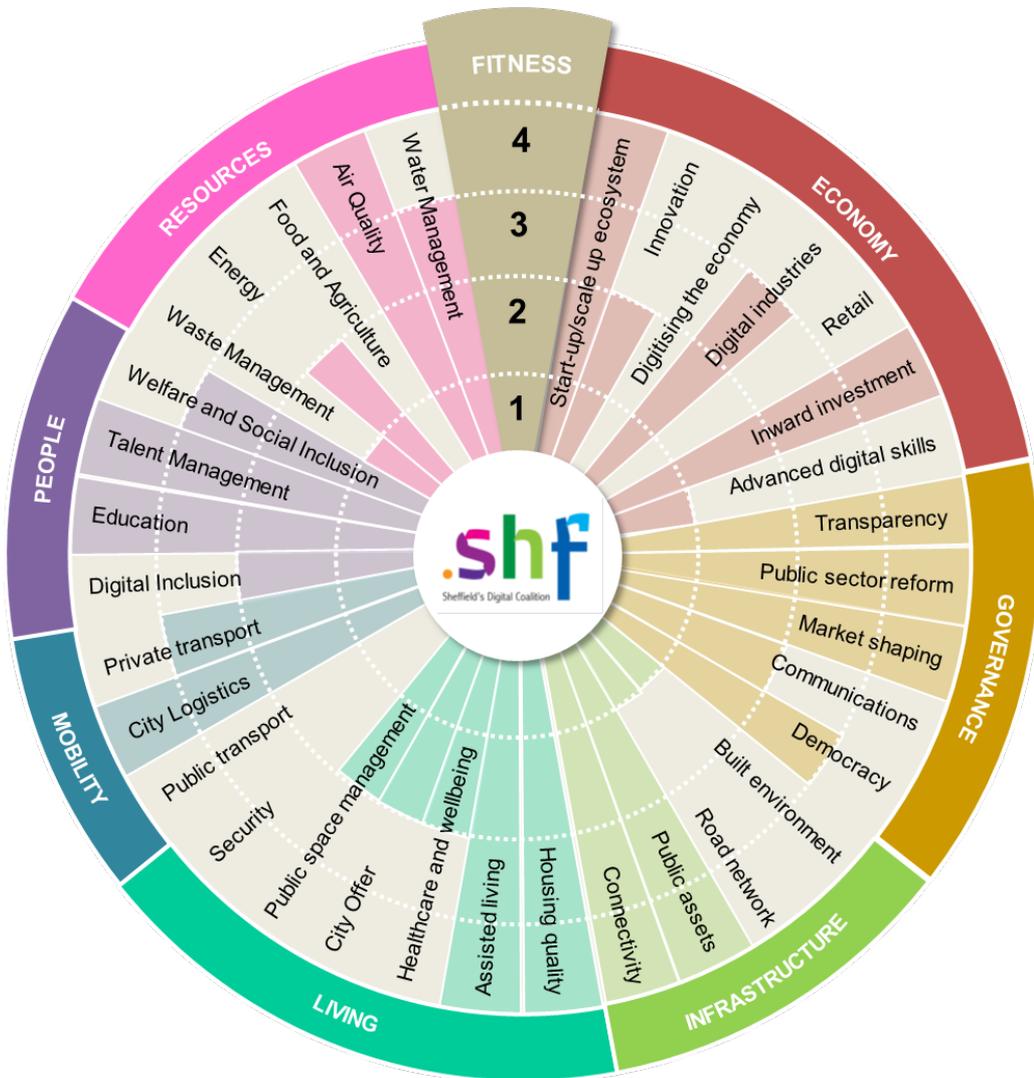
What's the approach?

The work of dotSHF is built around seven domain areas, each with a number of sub-domains.

These are agreed areas of focus. Each domain is focussing on a number of subject areas and a number of key challenge questions to be addressed (the domain groups are agreeing the challenge questions).

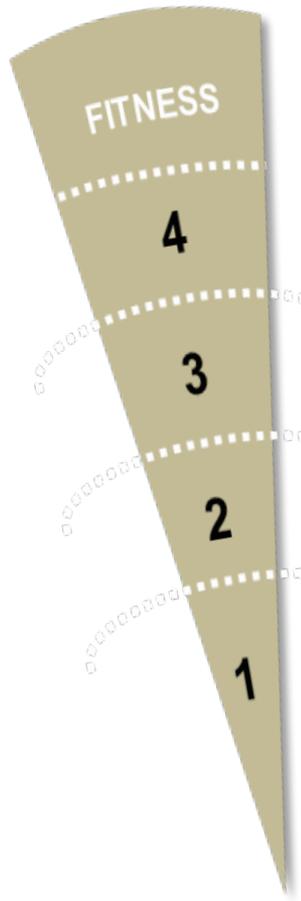
1. People
2. Economy
3. Governance
4. Infrastructure
5. Living
6. Mobility
7. Resources

Sheffield's Domain Model



Note: This sub-domain 'assessments' on this version are illustrative only.

Assessing the territory



Fitness is both about the **number and coverage** of initiatives as well as the **quality and impact** of individual activities.

Thriving:

Thriving community with significant numbers of initiatives.

Strengthening:

Strong initiative activity with a growing sub-domain community.

Developing:

Some initiatives established and delivering with more planned.

Emerging:

Limited activity but some early initiatives in place.

Behaviours + Capabilities

1

Be curious, practical, reforming

Creativity and Play - New Business Models - Shared Services

2

Work in the open by default, share and build inclusivity

Making Things Visible - Open Commissioning and Procurement

3

Have a deep regard for the citizen experience of a policy, project or idea

Fairness - Citizen-led Design - Modelling City Systems - Financial Resilience - Community Resilience - Sustainability

4

Harness the power of boundless horizontal communication

Citizen Engagement - Engagement Platforms - Harnessing Movements - Cross-sector Engagement

5

Embrace the tools and working practices of the internet era

Challenge-driven Innovation - Nurturing Ecosystems - Collaboration Platforms - Cyber security

6

Use data to inform decisions and measure outcomes

Smart decision-making - Open Data - Data Sharing - Developing a Data Culture

7

Pursue an iterative, agile approach to development (and governance)

Agility - Permissionless Innovation

8

Develop a stewardship model of city leadership

Stewardship - Collaborative Leadership - Resource Mapping - Smart Civic Dialogue - Privacy and Data Protection

About This Board

What is this board for?

What are the columns?

What are the cards?

What do the colours mean?

What other boards are there?

Can you please add me to the board?

Board Chat

Key Challenges

Conference challenge #1: How do we create sustainable incubators/accelerators in Sheffield?

Conference challenge # 2: We provide support for companies wanting to relocate to Sheffield, what support is available to indigenous businesses?

Conference challenge question #3: Should we support Sheffield businesses to trade in Bitcoin?

Add a card...

[New Suggestions]

Produce a quarterly update briefing on the local digital economy and city digitisation.

Hold more outward-facing events (e.g. with Yorkshire Digital Catapult, Tech North)

Increase comms around digital

Investigate potential for more digital businesses to get Made in Sheffield mark

Add a card...

[Being Evaluated]

Hold a digital jobs fair

Investigate options to improve RISE graduate scheme to improve recruitment to graduate developer jobs

Add a card...

[In Progress]

Investigate demand for space for digital businesses and potential actions

LociPay / The Sheffield Pound

Encourage large digital businesses based outside the city centre to relocate to the city centre

Add a card...

So what have we done so far?

It is still relatively early in our development as a Coalition but we have made good progress in the last six months:

- **Scoping:** produced an outline / presentation / briefing paper explaining how the Digital Coalition would work and how it will be organised.
- **Engaging the communities:** hosted a Digital Policy Conflab to bring in opinions and encourage discussion on the concept and how it's articulated.
- **Inaugural Digital City Conference:** ran a city-wide Digital Conference to bring the Coalition and sub-communities together to meet and present the current initiatives and progress across the domains.
- **Published Trello Boards:** Crowdsourced public Trello Boards have been published and the first Domain groups have met to prioritise and progress initiatives -
 - Digital Leaders are starting to be identified.
- **Agreed Branding :** Democratically agreed by the community.

Why this approach?

- We felt it was important to be holistic and inclusive and cover all aspects of the digital economy.
- We want to exploit our existing assets and amplify what we have as much as we can.
- Technology clearly has a role but it must improve the lives of citizens, businesses and visitors, otherwise it is just gadgetry – we don't want that.
- No single body 'owns' the Strategy – it is the Coalition's Strategy.
- It was important for us that we built the Coalition from the ground up rather than have a beautifully written top down strategy that has no collective buy in.
- The strategy is to not have a formal strategy but rather to bring people and organisations together to solve city problems and help Sheffield thrive.

Domain Challenge Questions

How do we work together to help Sheffield thrive as the most resource literate (and efficient) city in the UK (and the World)?

How do we harness the City's social and digital knowhow to tackle social injustice?

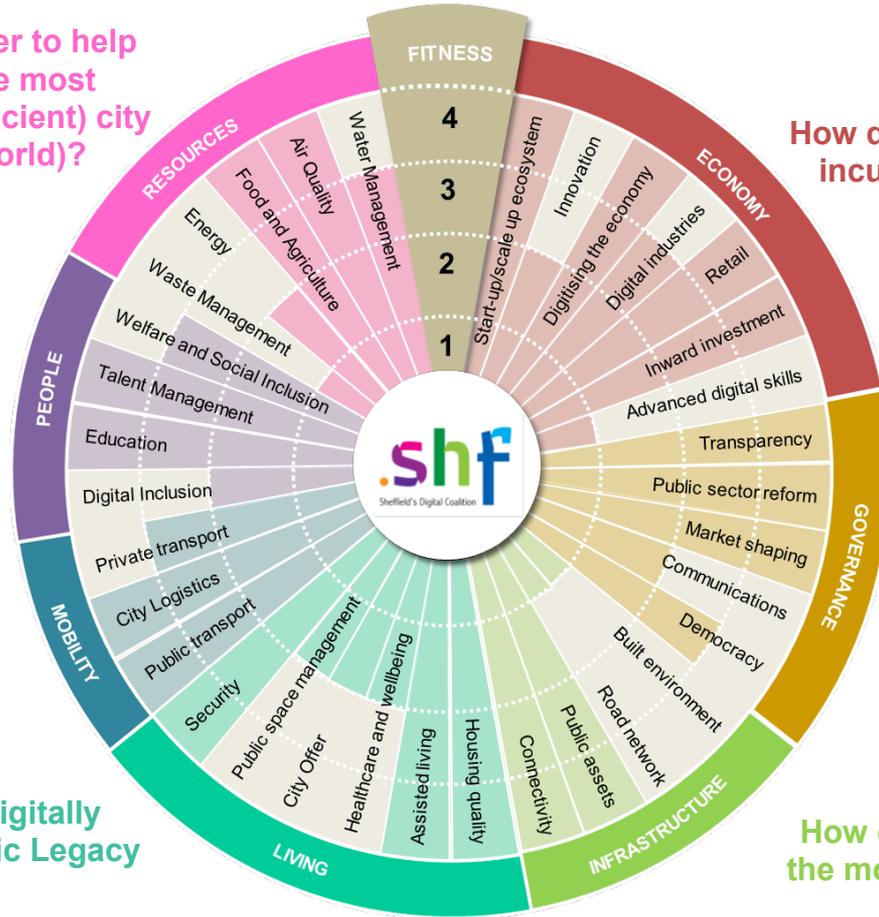
How do we use the available infrastructure, data, local talents and technologies to track and model mobility and inform policy?

How would you digitally enhance the Olympic Legacy Park?

How do we create sustainable incubators/accelerators in Sheffield?

How do we unleash the power of the City's data to help Sheffield thrive?

How could Sheffield become the most connected city in the UK?





Smart-Lab Sheffield

Sheffield Smart Lab was launched in summer 2015 in partnership with Ferovial and supported by both Universities, calling out to entrepreneurs and innovators across the world who had forward-thinking solutions to the challenges faced by Sheffield currently and in the decades to come.

- A short list of city-wide challenges was developed and narrowed to two by a diverse set of city stakeholders:
 - making the city centre more dynamic and
 - increasing the autonomy of citizens in situations of dependence.
- After the programme was launched, entrepreneurs were invited to respond to the challenges. 50 solutions developed by urban entrepreneurs from 10 different countries and selected the best to tackle the Sheffield's strategic challenges. .
- Nine winning ideas were selected by a panel of city stakeholders to be taken forward and developed in an 'incubation and acceleration programme' supported by the University of Sheffield and Sheffield Hallam University.



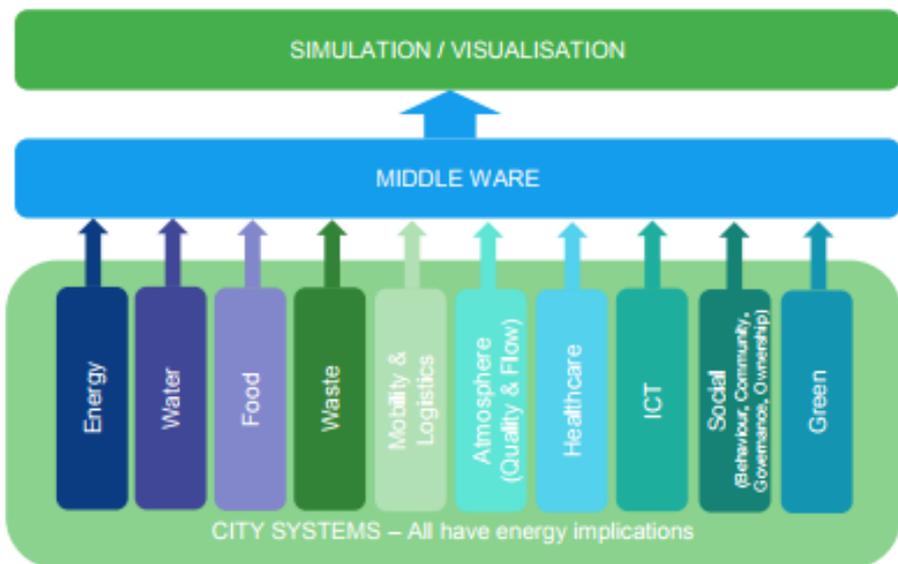
Perfect Patient Pathway

We aim to improve the lives of people with long term conditions through technology.

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CALLING ALL HACKERS, MAKERS, ENGINEERS, AND INVENTORS!

Can you **design** and **build**
a **creative** and **practical**
solution to some of the
real-life challenges
that we face in our
cities today?



The project will be delivered over three years and will be structured in a scalable manner in order to fit the budget:

Year 1 (April 2017 – March 2018) Systems Architecture, middleware and test sensing elements across sensing fields. The purpose is to test deploy across sensing criteria (temperature, thermal imaging, energy metering) to assess the interoperability and functionality of the systems architecture and middleware.

Year 2 (April 2018 – March 2019) district/campus role out to check scalability of technology, short range transmission and data capture technologies. Purchase of Mobile Sensing Platform.

Year 3 (April 2019 – March 2020) citywide deployment, potential focus on school roofs.

Helping to understand and solve Sheffield's air quality challenges.

EVOLUTIONISING AND INNOVATING IN SPORT, HEALTH-CARE, PHYSICAL ACTIVITY
AND LEISURE



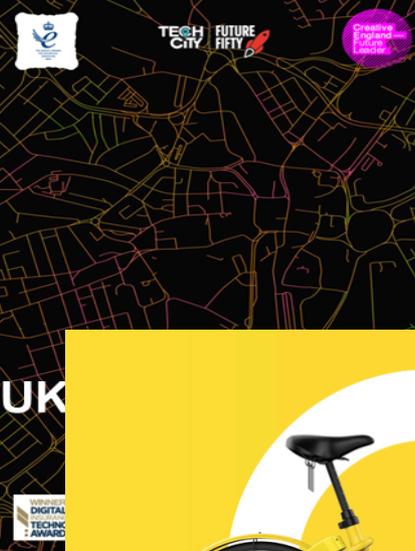
Olympic Legacy Park and Advanced Wellbeing Research Centre

Next Generation Intelligent Mobility

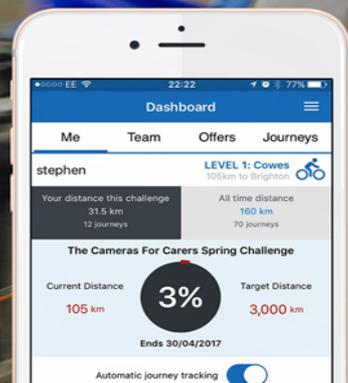
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Home Download



Ride your bike. Feel good.
Do good.

The Bicycle Island app is helping to turn the **Isle of Wight Cowes to Newport cycle route** into the UK's first SMART cycling corridor.

The app sets regular distance challenges for the community to aim at. Every user's journey along the cycle route contributes to the overall target. If the target is reached a **local Isle of Wight charity** gets a donation.



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It's easier than you think to fit into your day!

- > 10 BRISK MINUTES
- > AS SEEN ON TV
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The University Of Sheffield.

Participation

Steel City Derby

689 Fans | 1.2 million Minutes

NATIONAL CENTRE FOR SPORT & EXERCISE MEDICINE
WORKING FOR HEALTH & WELLBEING

Move More Workplace Challenge

23 Workplaces | 374 Teams | 2,964 Participants | 4.4 million Minutes

Move More Schools Challenge

6 Schools | 1,941 Pupils | 106,755 Journeys | 2,669 Miles



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Sheffield City Council open data





'Preventionomics'

How might we 'risk stratify' the population of Sheffield, and identifying the most effective interventions to improve the overall health and well being of our citizens and communities.





institute of



Advanced Digital Skills





leg up
.social

by **PAPER**

Community driven
research & design

legup.social is a collaborative effort to help
small businesses with digital.

A 3x3 grid of nine small portrait photos of diverse individuals, likely the team members of legup.social. The photos are arranged in a grid on a dark background with a geometric pattern.

Good Things
Foundation

The Good Things Foundation logo features a blue circular graphic composed of concentric, slightly offset lines, resembling a fingerprint or a stylized 'G'. To the right of this graphic, the words 'Good Things' are written in a large, bold, sans-serif font, with 'Foundation' in a smaller font below it.

The role of the Public Sector

- Anchor institutions – key role.
- Promoting inclusive growth and development.
- Set smart city priorities.
- Market shaping.
- Core infrastructure investment.
- Exploiting assets.
- Supporting economic development.
- Building a sustainable digital ecosystem.
- Showing the way and clearing the way but not doing or owning it all.



Some final thoughts

- **Context is everything.**
- **Avoid shiny tech smart city solutions.**
- **Avoid vendor lock in.**
- **Keep data open.**
- **Actually do everything in the open and expect everyone else to.**
- **Focus on building connections and relationships between sectors – success will be built on effective collaboration and mutually reinforcing support.**
- **Focus on skills, capabilities and behaviours.**
- **Solve real city problems through encouraging collaboration and innovation.**

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