

- **The Bristol Approach to Citizen Sensing Good Practice Summary**

‘Smart city’ programmes are often developed and driven by the few and don’t always take into account the majority of people who live, work and collaboratively make the city.

A 2015 report by the UK charity NESTA identified a number of things that have held ‘smart cities’ back from delivering real value:

- Not addressing the issues people really care about
- Not taking human behaviour as seriously as technology
- A lack of focus on the skills people need to use smart technologies
- A lack of integration with other things going on in cities
- Not providing clear roles for people
- Not focusing on shared, open resources.

At Knowle West Media Centre (KWMC) we believe that all people, whatever their background, should be able to imagine, design and build the future they want to see – for themselves and their city. So we collaborated with Bristol City Council and Ideas for Change to develop The Bristol Approach to Citizen Sensing – a framework that can help us create ‘smart cities’ where the power of technology is harnessed to tackle the issues that people care about.

The Bristol Approach ensures that those unfamiliar with digital technology and data can fully participate in co-designing digital services, which creates tools based on people’s needs instead of pushing technology or data ‘solutions’:

“The Bristol Approach is interesting because it is not just a matter of getting the technology right - it's taking a much more holistic approach to gathering data and using it.” (Nigel, Citizen Sensing workshop participant)

This is important because:

“Ultimately if you’re trying to make things better for the people who live in a community the first thing you need to understand is what it’s like to live in that community - what the issues and problems are. We all think we know the answers to that but once you start talking to a wider group of people you can be surprised.” (Local trader and Citizen Sensing workshop participant)

Using the Bristol Approach, KWMC has developed a range of projects that are about tackling issues identified by local people. One of these projects focuses on damp homes and has resulted in bespoke ‘frog sensors’, manufactured at KWMC: The Factory, being used to record relevant data in damp homes.

The Bristol Approach to Citizen Sensing refers to applying the processes and ethos of The Bristol Approach framework to sensing, ‘smart city’ and technology projects.

'Citizen Sensing' is a process where people build, use, or act as, sensors – for example, identifying and gathering information (or 'data') that will help them to tackle an issue that's important to them. This sensing process could involve creating a bespoke temperature sensor from scratch or using a piece of technology that already has an in-built sensor, like a smartphone. However simple or complex the technology, and whatever the data being gathered, citizen sensing is about empowering and enabling people to use technology for social good.

We have completed The Bristol Approach framework with three different groups tackling three different issues: damp in homes, mental health and food waste.

Throughout the framework a diverse range of people have participated in activities and events. For example the first workshop, Imagine Bristol included 34 people aged 13-80, coming from a range of different areas of expertise and background. At the Easton, Lawrence Hill & Ashley Neighbourhood Partnership meeting we ran a workshop Redfield Educate Together where we engaged with residents from a variety of backgrounds.

By asking people that attended these events why they had come along we were able to gain a better picture of what motivates participation in The Bristol Approach:

"I came here to see how we can create things to help people living in horrible conditions." Maddy, workshop participant.

"The concept of the commons interests me greatly - that's what brought me here." Ilaria, workshop participant."

While developing a solution to the issue of damp in Bristol, engaged stakeholders generate resources that can be appropriated and forked by other communities of citizens facing a similar issue. This is likely to foster the emergence of new collaborations within and across cities, as well as strengthening an ecosystem for citizen driven innovation and empowerment.

Throughout the pilot process a range of evaluation data was gathered from participants, partners and staff, including through evaluation forms, reflective writing, interviews and creative strategies in workshop contexts. The headline learning points overall were:

- Defining issues in terms of 'lack of' is successful as it highlights what data is missing and can therefore lead more clearly towards solutions. It is also important, alongside this style of framing, to make space for positive imagining, therefore avoiding pitfalls of negativity and keeping positive change as the goal.
- In a commons structure it is unrealistic (and unnecessary) to expect that everyone will participate in every aspect of design. A 1% of super- engaged and active participants generally proves the norm. However, all contributions are essential in the over-all ecosystem of participation. It is also vital that the process remains open new participants and existing participants to step-up their contribution. Key points also need to be identified through the process for participatory decision-making. Again an effective online tool that aids the co-design decision-making process in the above ways is critical to develop.

- A face-to-face deployment process that allows plenty of time for dialogue and can be easily tailored to different cultural needs is essential. Sign-up agreements, installation and user-guidelines need to be quick, easy and adapt to different situations to ensure they are culturally appropriate and do not create unnecessary barriers.