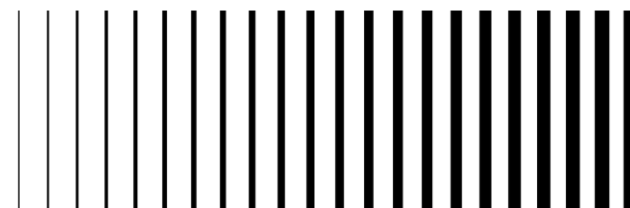
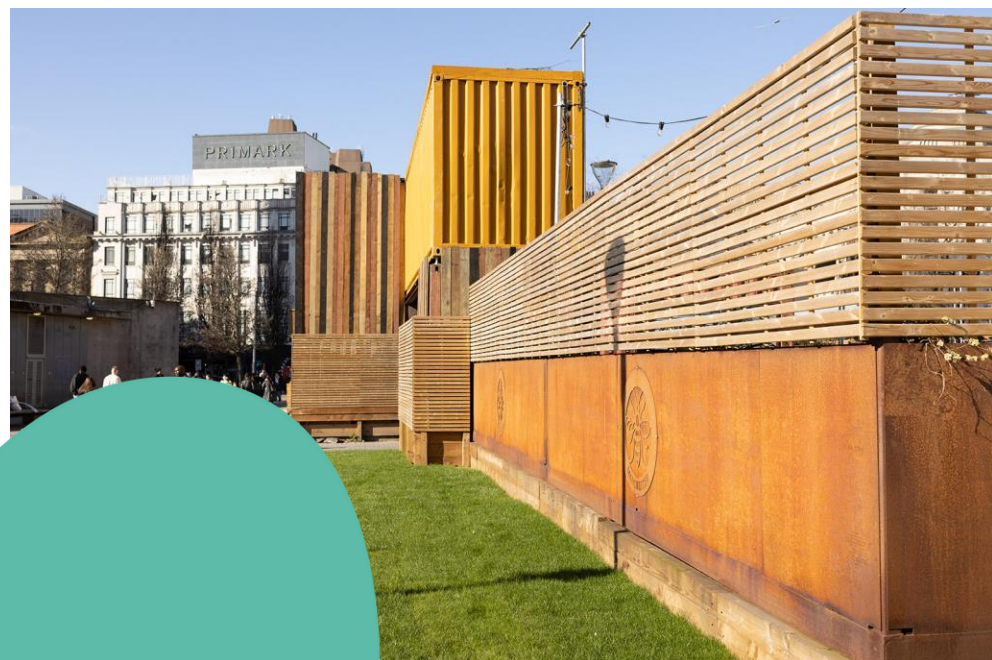
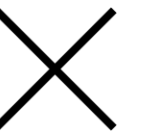


DOING
DIGITAL
TOGETHER

Digital Sustainability in Manchester: The City's co-created projects





What we did:

Due to experience in the sustainability and digital space, Steve Connor and Creative Concern were commissioned as project partner to deliver **a series of workshops to co-create sustainable digital project ideas.**

The commission tasked the project partner to write a final paper and set of recommendations that align with the ambitions of the Digital Strategy and Manchester Climate Change Agency's refreshed framework. Several stakeholders were involved in the co-creation process from across a range of relevant industries in the sustainability and digital spaces. **We wanted to understand the problems in the sustainability/digital space from the perspective of people who were working in these areas.**

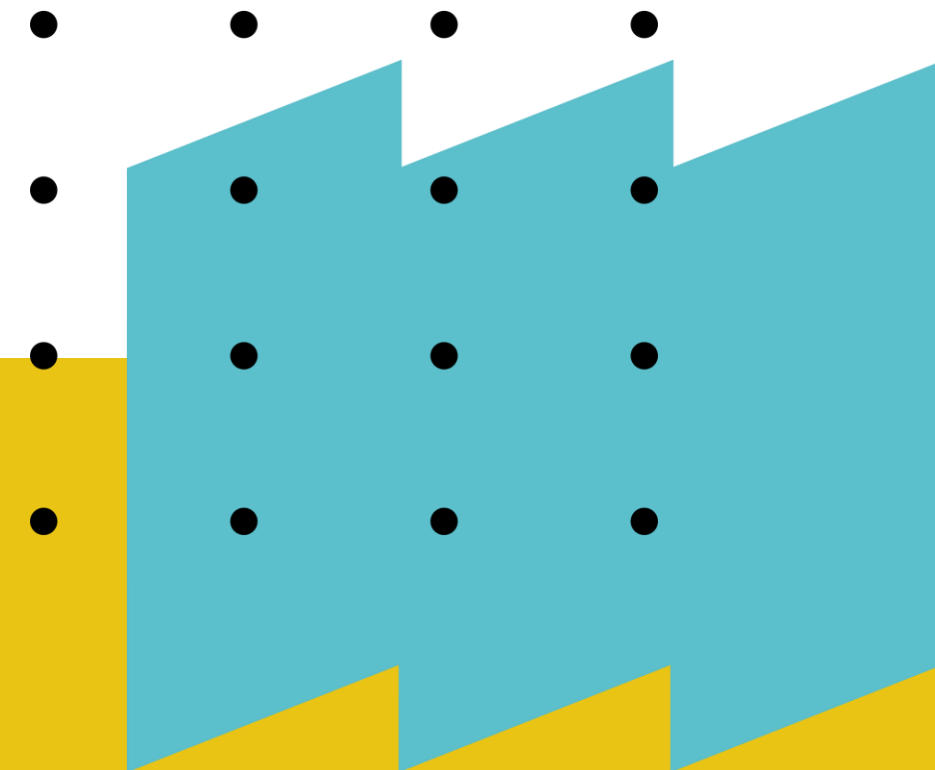
The purpose of this was to ideate how we achieve zero carbon goals, enhance climate resilience, and promote open, inclusive connectivity with sustainable digital infrastructure. The paper also considered the legacy of past Manchester sustainability initiatives and prioritised project recommendations based on activities and themes that were identified as most important by the stakeholders consulted. These were: **citizen engagement, circular economy, urban planning, and net-zero energy systems.**



Who was involved:

In the spirit of partnership, the content of the paper and recommendations were co-designed with stakeholders involved in the workshops, including:

- City of Trees
- The Growth Company
- Circularity First
- Electricity North-West
- University of Manchester
- RED Co-op
- Better Business Partnership
- Groundwork
- Quantum
- Manchester Climate Change Agency
- Factory International
- PixelMill
- Plan-IT
- Magnetic
- Arup
- Siemens
- Carbon Co-op
- Civic
- Mott Macdonald

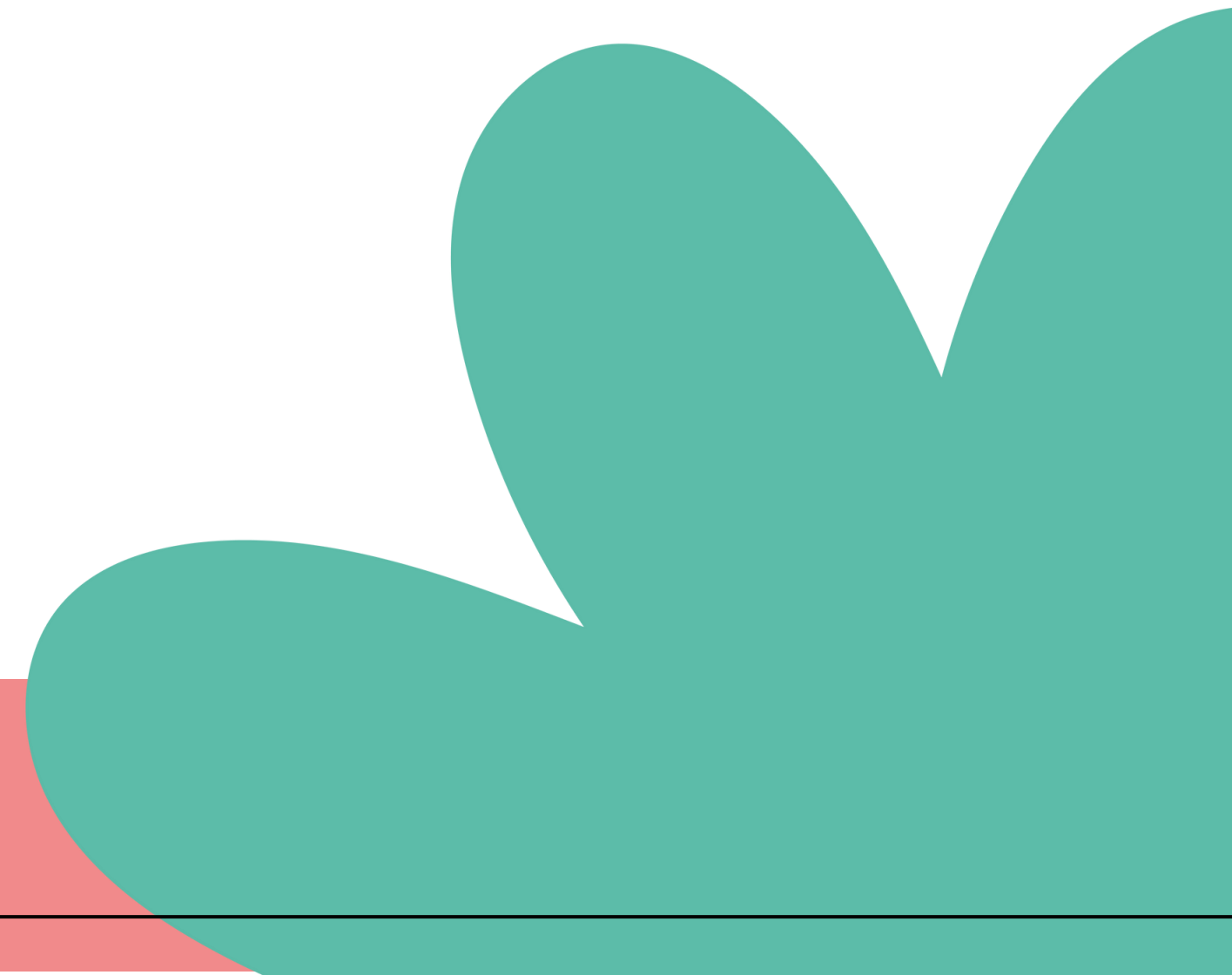




What themes emerged:

The paper proposes co-designed programs and projects inspired by global innovations, tailored to Manchester's specific needs. These projects span the following themes:

- Energy
- Resources
- Transport
- Water
- Planning
- Citizen Engagement



The projects in detail ○ ● ○

PROJECT ONE

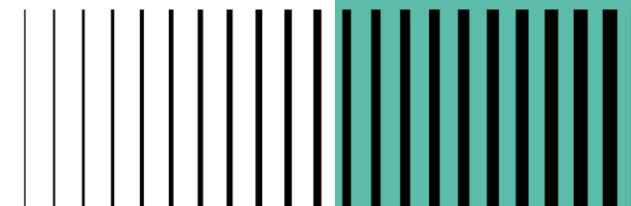
Smart Energy City - Combined Project Proposal

This project concept was ranked as the highest priority as it closely aligns with Manchester's 2038 target to become carbon neutral and the urgent need to get on track in terms of the city's carbon budget.

The project brings together four different ideas that emerged during our workshops: a pilot exploring the use of AI to better control energy supply systems; a Manchester mini-grid that brings us closer to energy independence; a whole city 'smart meter' to help us understand energy use patterns better, and the development of a digital twin.

Thematic areas: energy use, resilience, carbon emissions

Next Steps: planning and funding a Manchester smart grid project plan that also explores the use of AI with Manchester as a test bed.



Key considerations:

- For this project, we can consider pulling together existing data, resources and stories to get an understanding.
- Electricity and energy companies will be key stakeholders.
- This project aligns with other projects currently going on, including a project run in tandem with GMCA on 5G enabled heat pumps to support smart energy grids.



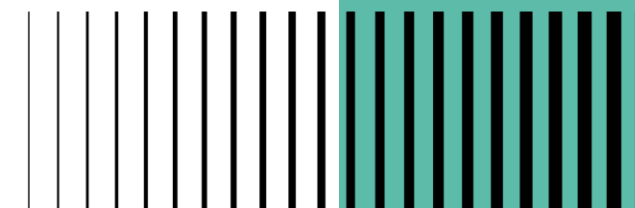
PROJECT TWO

Digital Action on Clean Air

A data-led project examining air quality levels across the city using sensors, real-time data and visualisation as a platform for increased action on clean air and citizen engagement.

Thematic areas: Air quality and health

Next steps: immediate project pipeline. The data already exists, so this is a project that could be initiated almost imminently however it would require resourcing. To use data, citizen science and high impact visualisations as a communications platform around clean air.



Key considerations:

- For this project, we must consider current optics and citizen engagement and feedback around existing and past clean air related policies i.e. the controversial Clean Air Zone in greater Manchester.
- We must be purposeful in how we approach the topic, layering different types of data on Air Quality data i.e. health could help us to create a compelling narrative to engage citizens in air quality concerns in their local areas.
- As this is a data led project, there is the potential to explore options like digital twins to map air quality and see what policy measures would reduce pollution and clean up the air.



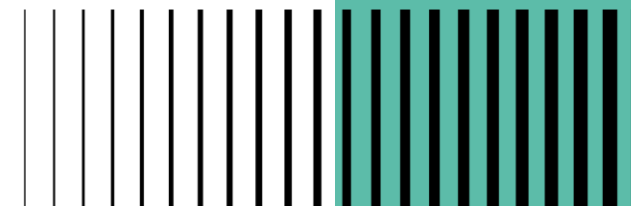
PROJECT THREE

Radical Action on Waste

This would be a circular economy project focused on working with partners on radically reducing e-waste, turning that waste where possible into resources for the future, and exploring data-led solutions to create greater levels of circularity in the materials economy of the city. There is also the opportunity to explore the link between e-waste and skills, running after school repair shops educating young people on how to fix electronic items, which feeds into the green skills and digital skills agenda.

Thematic areas: waste and resources

Next Steps: a platform for city wide e-waste recycling doesn't currently exist and would need project and resource development. We should bring together a working group to scope out a full project plan, scope and resourcing.



Key considerations:

- This project has the potential to be high impact but requires the most resource to facilitate as it relies heavily on good quality citizen engagement.
- We need to understand the feasibility of expanding our city-wide recycling system to include e-waste pick up.
- There is scope to work with community-based organisations on several outputs within this project, so we must make sure to use any potential resource across a variety of organisations.

