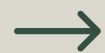


Innovation Festival

20 May 2025



Facilitators:

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Smart Sustainable Green Cities | Birmingham City University| 20 May 2025



Our objectives were:

- To stimulate collaboration and integrated approach across academic, private, and community sectors.
- To explore LEGO® Serious Play® as a creative and inclusive method for generating visionary while remaining practical ideas to tackle challenges related to urban regeneration, social equity, environmental sustainability, and technological integration.
- To apply the Sustainable, Smart, and Green (SSG) framework to address regeneration challenges in East Birmingham.
- To identify potential for long-term impact, scalability, and community ownership in addressing urban challenges through participatory design and engagement.

This event was hosted by BCU as part of its annual Innovation Fest and aligns with BCU's Vision 2030 strategy to serve as an anchor institution for the city. As part of this ambition, the event explored interdisciplinary approaches to co-designing smart, sustainable, and green (SSG) solutions for East Birmingham, with a particular focus on the Tyseley and Hay Mills area.



How Can We Make East Birmingham Smart, Sustainable & Green?



Interdisciplinary workshop

The Innovation Fest Workshop brought together a diverse group of participants from both academic and non-academic sectors, fostering a holistic and interdisciplinary approach to addressing urban challenges in East Birmingham. Attendees represented a broad range of expertise, including: Built Environment and Urban Planning, Sustainability and Environmental Science, Engineering and Industry, Social Sciences and Education, Smart and Digital Cities, Data Science and Artificial Intelligence, and Community Engagement and Development.

Participants came from a variety of sectors, including local government bodies such as Birmingham City Council; cultural and environmental organizations like the Birmingham Botanical Gardens; academic institutions including Birmingham City University and the University of Birmingham; the educational sector, such as Victoria Ark School; commercial businesses like Tyseley Energy Park (TEP); charitable organizations such as HMTF; and community-based groups like Free@Last, which supports children, young people, and families in East Birmingham. The inclusion of educational institutions like Victoria Ark School highlights the importance of involving young learners in shaping the future of urban environments.



The workshop employed the LEGO® Serious Play® (LSP) methodology to engage participants in creative, collaborative thinking around Sustainable, Smart, and Green (SSG) city development. The participants are divided into groups to consider Sustainable, Smart, and Green approaches individually.

Process:

- Individual Model Building:

Each participant built a personal LEGO® model representing their vision of a Smart, Sustainable, or Green city and shared a brief 30-second story explaining their model.

- Group Model Building:

Participants then formed groups based on SSG themes to collaboratively build a shared model of an ideal city. This included storytelling, identifying key features, voting, and modifying the model.

Outputs:

- Individual Interpretations: Unique personal models and stories capturing diverse perspectives.
- Collaborative Models: Group-built shared visions highlighting consensus and key priorities.
- Action Plans: Group task outcomes including identification of local challenges, growth potential, partner mapping, SSG-aligned solutions, and communication and implementation strategies.

Workshop Method

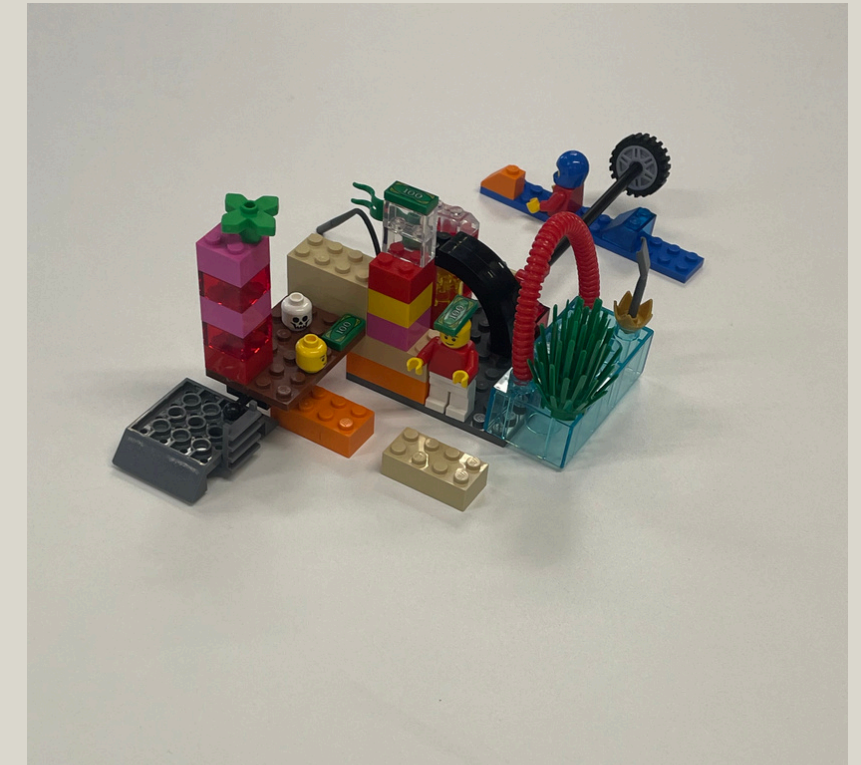
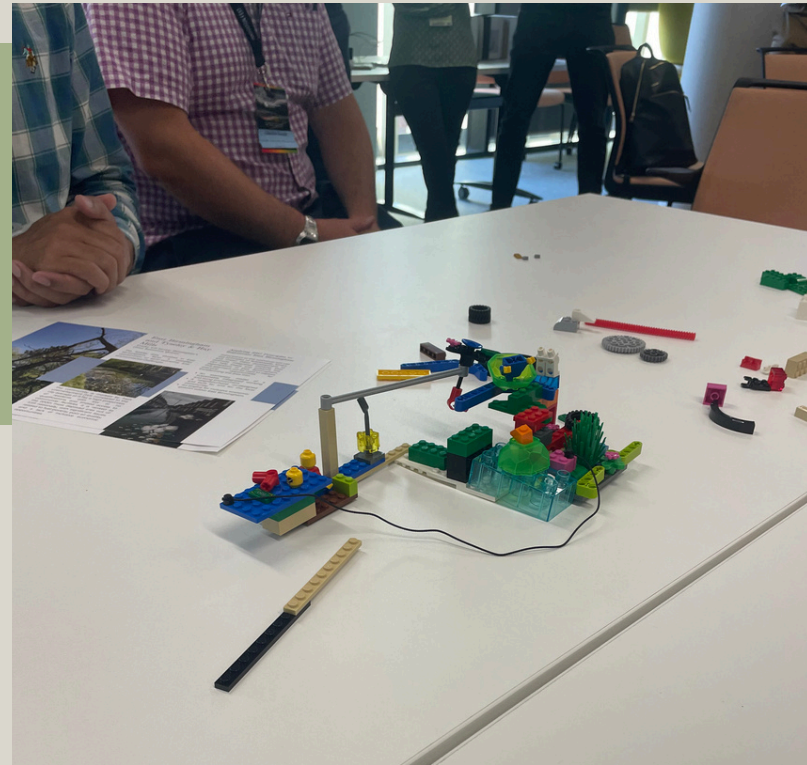
Integrated Insights from LEGO® ↓ Serious Play

Using the SSG principles, participants identified several Integrated Insights:

- Urban Complexity Requires Simplicity through Data: Data plays a crucial role in unraveling complex city systems and supporting informed decision-making.
- Social Sustainability is Essential: Sustainability must focus on people's sense of belonging and community, not just on technology.
- Governance Gaps Limit Progress: Fragmented leadership and poor coordination in Birmingham hinder sustainable development efforts.
- Residents Feel 'Done To' Rather Than 'Part Of': Top-down planning approaches alienate communities; genuine co-leadership is needed for lasting change.
- Visualizing the Future Supports Planning: The LEGO® models enabled participants to imagine concepts like the 15-minute city, integrated transport, and blue-green infrastructure.



Selected Insights emerged



Equitable Financing: Emphasizing fair and inclusive funding models to ensure that all communities have access to the benefits of green infrastructure and smart city technologies.

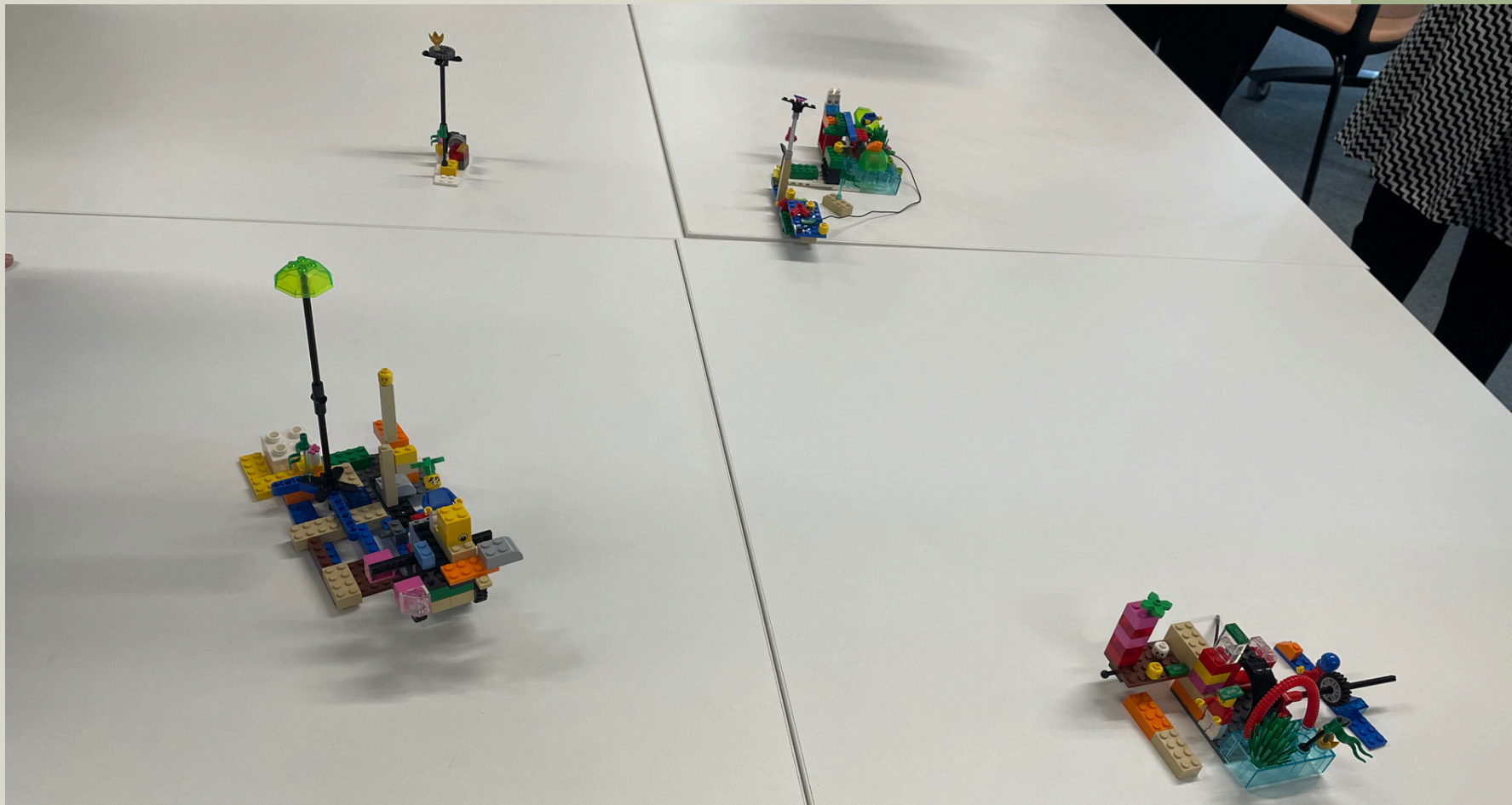
Sustainable Energy and Data Utilization: Utilizing renewable energy sources combined with efficient data management systems to optimize urban operations and reduce environmental impact.

Enhancing Health and Well-being: Promoting the role of beauty, social cohesion, and access to nature within urban environments to improve residents' mental and physical health.

Fostering Human-Nature Coexistence: Designing urban spaces that support biodiversity and enable a harmonious relationship between people and the natural environment.

Effective Communication and Community Engagement: Building trust and participation through transparent communication strategies, enabling communities to take an active role in shaping sustainable urban transformations.

Ensuring Resilience: Developing adaptive and flexible infrastructure and governance systems capable of managing the complexity and scale of urban transformation processes.



A Shared model emerged

Four groups explored the core themes: Sustainable, Smart, or Green. Each group constructed an individual model reflecting their thematic focus. These models were subsequently integrated into a single, cohesive representation that embodied a shared vision of a future city. The discussions centered on designing a smart, sustainable, and green urban environment by harmonizing natural systems—such as soil, water, and biodiversity—with built infrastructure. This integrated approach is vital for fostering urban resilience and addressing pressing challenges, including climate change, population growth, and sustainable resource management.



Shared model output

Quoted Insight:

“Birmingham’s economy remains closely tied to traditional manufacturing, but the city is undergoing a gradual shift away from it. There is a pressing need to support the transition from traditional manufacturing to future technologies. This transition can inform policy decisions and strategic planning aimed at enabling Birmingham’s economic evolution. Key topics include the importance of prioritising people and businesses in the implementation of sustainable change.”

This quote highlights the ongoing economic transformation in Birmingham and underscores the significance of aligning policy and strategy with this shift. It also calls attention to placing people and businesses at the centre of sustainable change, making it a key theme for future-focused planning. This aligns closely with the Sustainable, Smart, and Green (SSG) framework by promoting economic sustainability through inclusive growth, encouraging smart innovation, and supporting greener, environmentally responsible practices. It underscores the importance of people-centered policies and strategic planning to ensure a balanced and forward-looking urban development.

Second part

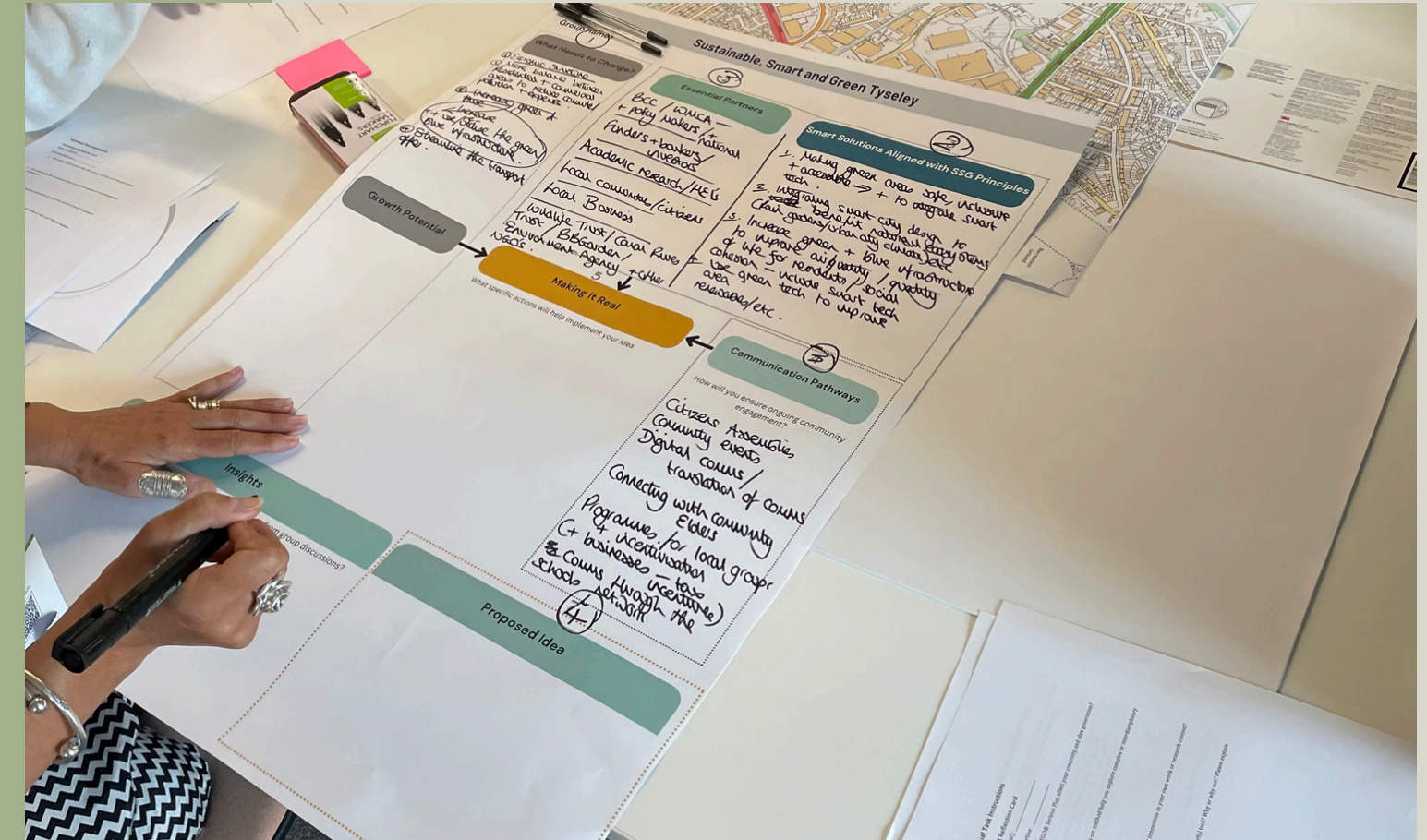
Challenges facing East Birmingham

In the second part, participants applied SSG principles to real-world challenges in East Birmingham, co-designing potential regeneration solutions tailored to the Tyseley area.

To provide insight for participants unfamiliar with the east of Birmingham, the main challenges have been identified and categorized using key terms derived from official Birmingham City Council documents including:

- ❑ Socio-Economic Challenges
- ❑ Environmental Challenges
- ❑ Infrastructure and Mobility Challenges
- ❑ Community and Safety Challenges
- ❑ Health and Wellbeing Challenges
- ❑ Digital Inclusion Challenges





Key Challenges were identified

- Air pollution
- Economic problems
- Lack of digitalization
- Pollution at the recycling site near River Cole
- Lack of social sustainability
- Inefficient transportation systems
- Low recycling rates and ineffective waste management

Key Partners Suggested by Participants for Achieving a Smart, Sustainable and Green East Birmingham

- City Council & Local Authorities
- Universities (e.g. UOB, BCU)
- Housing Associations
- Local Businesses
- Environmental NGOs (e.g., Wildlife Trust, River Trust)
- Community Groups & Residents
- Transport & Infrastructure Agencies
- Investors & Funders

The discussions identified some key partners would need to be involved



Approaches to Inclusive Participation

- Citizens' Assemblies & Community Events
- Regular, inclusive forums to empower local voices and co-create solutions with residents.
- Programs for Local Groups
- Use incentives (e.g. rewards, tax breaks, public recognition) to encourage active participation from communities.
- Connecting with Community Elders & Schools
- Involve respected local figures and integrate sustainability education into schools to foster generational engagement.

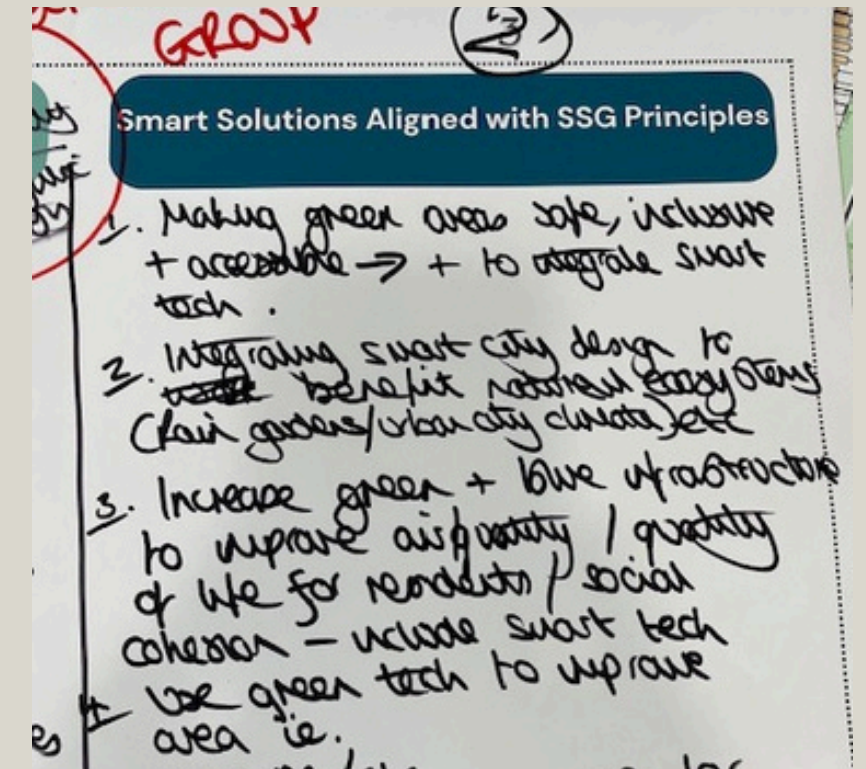
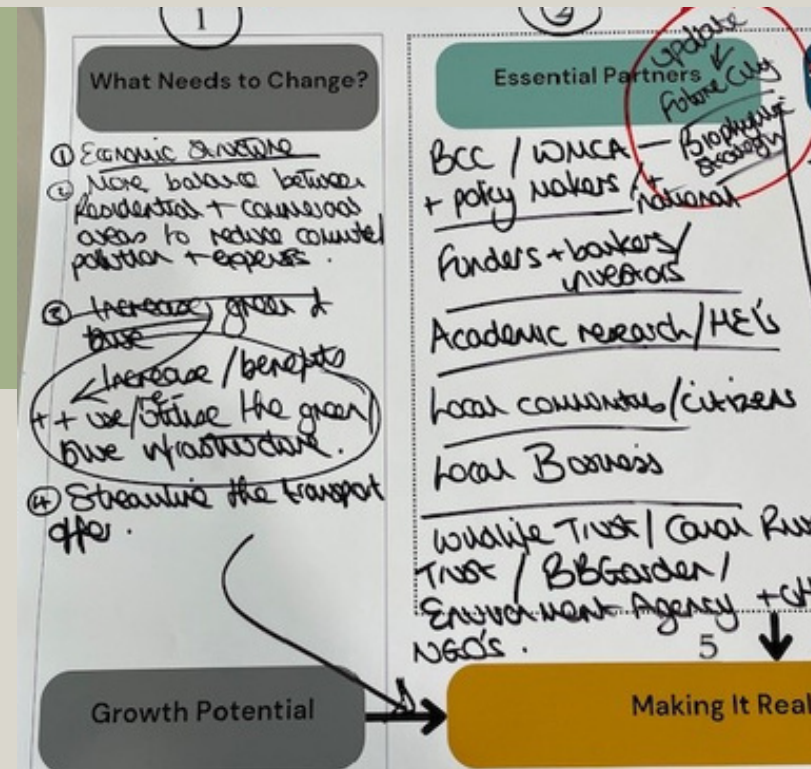
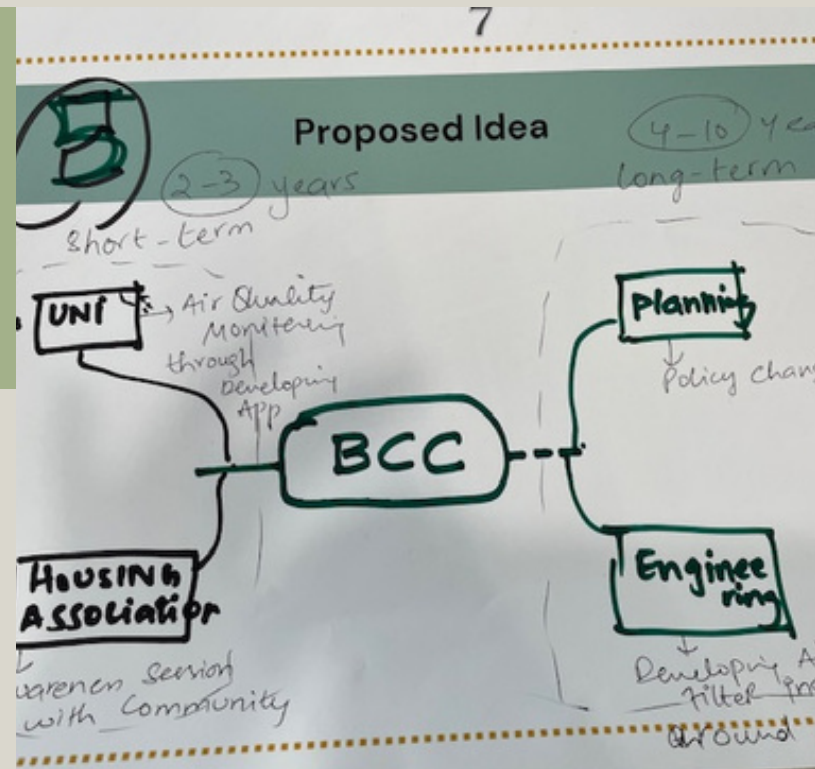
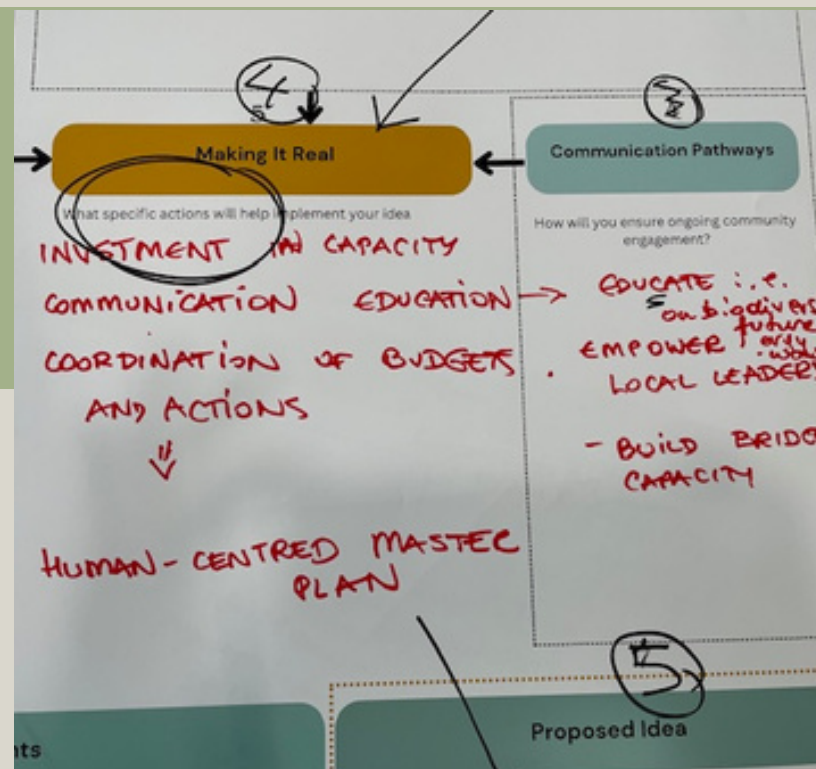
Communication Pathways

- Multilingual Digital Platforms
- Ensure accessibility through translated content and mobile-friendly platforms.
- Workshops and In-person Events
- Host regular sessions to build trust, gather feedback, and maintain transparency.
- Community Newsletters & School Engagement
- Use local schools and community bulletins to distribute updates and educational material.
- Gamified Apps with Local Challenges
- Encourage engagement through interactive tools (e.g. air quality tracking, eco-friendly behavior rewards).
- Public Art and Green Installations
- Use creative, place-based visual prompts to spark conversations about sustainability and identity.

Ongoing community engagement will be needed for success



Drawing upon the foundational principles of SSG



In the second part of the workshop, participants collaboratively developed practical and scalable strategies to transform Tyseley into a model SSG area. Through interdisciplinary dialogue, groups identified key challenges and proposed bold, place-based solutions aligned with SSG principles. The final shared ideas emphasized the following core principles:

- Long-term impact
- Community co-ownership
- Digital inclusion
- Ecological benefits

These focus areas collectively would guide efforts to create resilient, inclusive, and environmentally responsible urban futures in East Birmingham.

Proposed Ideas for East Birmingham



- Design a 15-minute city structure to promote accessibility, equity, and sustainability by placing essential services and economic zones within close proximity to residents.
- Expand and connect green and blue corridors (parks, rivers, canals) to enhance ecological health and improve public well-being.
- Incorporate data-driven urban planning to simplify complexity, optimize resource use, and increase city responsiveness to changing needs.
- Foster resilience through co-ownership by actively engaging communities as partners in urban transformation, including the support of citizen-led associations.
- Create mixed-use environments that combine residential, commercial, and recreational spaces to encourage diverse, vibrant neighborhoods.
- Implement pedestrian-friendly solutions to promote walkability, reduce vehicle dependency, and enhance urban livability.
- Integrate various city resources and components to address and mitigate urban inequalities effectively.
- Encourage resource sharing among communities, recognizing it as a fundamental principle for sustainable urban development.
- Prioritize social sustainability by designing inclusive spaces that facilitate interaction and integration among diverse social groups.

What Needs to Change?



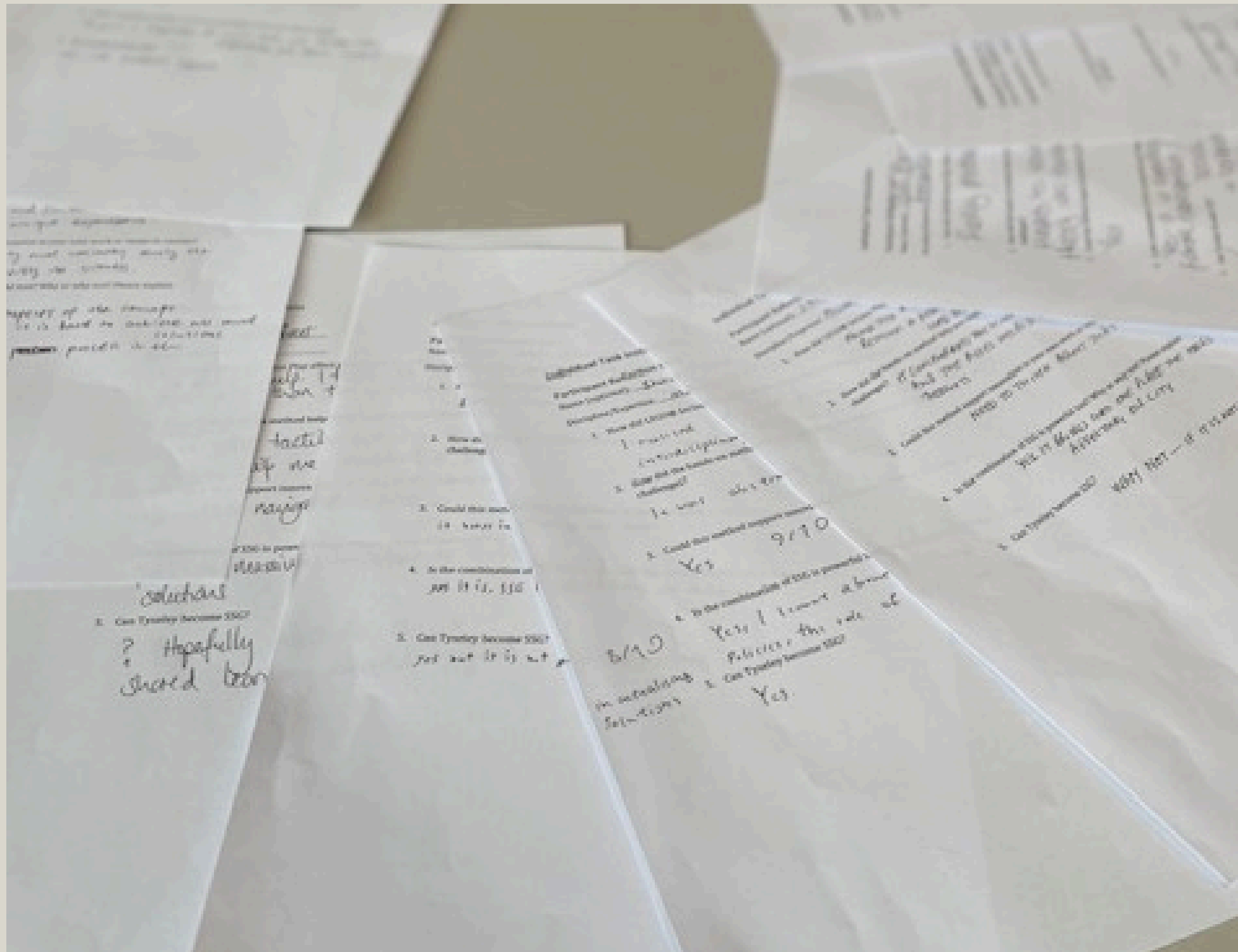
- Governance: Improve coordination among Birmingham City Council departments.
- Infrastructure: Move from car-dominant designs to pedestrian-first, multi-modal transit models.
- Cultural Mindsets: Shift from a reactive to a proactive sustainability culture.
- Air & Waste Management: Address pollution from outdated plants and introduce real-time air quality monitoring.

Specific Actions for Implementation

1. Create Human-Centered Design Master Plans with community input.
2. Launch an Air Quality App in collaboration with local universities.
3. Redesign the Railway Station with mixed-use development and pedestrian priority.
4. Pilot Tax Incentives for Businesses adopting green practices.
5. Start Green Corridor Projects in partnership with housing associations.

“This is an Innovation Festival. We must consider what is redundant in our cities—what is no longer needed—and how the future will be shaped by new technologies and fresh ideas.”

— Sandy Robertson, Hay Mills Trust



We Should Think About These Smarter Technologies...

- Smart City Design
- Use technology to monitor air quality, manage traffic, and optimize public services.
- Green Tech
- Invest in solar, wind, and nature-based infrastructure like green roofs and walls.
- Blue Infrastructure
- Reclaim canals for eco-friendly transportation and logistics (e.g., drones, boats).
- Inclusive Planning Tools
- Utilize data dashboards, smart apps for residents, and co-creation workshops.

Attendees

External participants:

Sandy Robertson

David Coldwell-Horsfall

Aisha Khan

Sara Blair

Tom Lewis

John Street

Karolina Medwecka

Charles Goode

Internal participants:

Sana Malik

Monica Mateo Garcia

Shahreen Bashir

Arifa Choudhury - RIDSO

Fadia Dakka

Abdul-Hamal Qayoom

Fateme Marandi

Huafeng Lu

Farzaneh Mohammadi

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