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Responding to hotter temperatures in Bristol, UK, with cool spaces

A city-wide network of "cool spaces" in Bristol offers public protection from extreme heat

With hotter summers already impacting public health and daily life, Bristol City Council is organising workshops and local collaboration to implement inclusive and accessible "cool spaces", helping communities adapt to extreme heat.

Key Learnings

- **Heat affects people unequally and inclusion is essential**: Discussions highlighted that groups such as people experiencing homelessness or those with limited mobility are often excluded from public spaces. Designing with inclusion in mind should be a core priority.
- **Community-led design builds trust and relevance**: Involving residents early in climate adaptation activities, such as through collaborative workshops ensured that the cool spaces reflected local needs and preferences, improving acceptance and long-term usability.
- **Function extends beyond physical features**: Participants emphasised that a “cool” space is not only about temperature, but also about being socially welcoming, safe, free, and easy to access. These findings underscore the importance of social and physical aspects in public space design.

About the region

Bristol, located in Southwest England, is a city shaped by its position along the River Avon and its proximity to the Severn Estuary. With a population of around 460,000 (2025), Bristol has a long history as a maritime and industrial hub, now transitioning into a centre for green innovation. The city faces growing climate risks, particularly from urban heat and tidal flooding, intensified by climate change and rising sea levels. Low-lying areas such as Avonmouth are especially vulnerable, while increasing summer temperatures are placing additional pressure on public health and infrastructure.

Climate Hazards

Extreme Heat

Sector

Urban

Key system

Critical Infrastructure, Ecosystem and Nature Based

Solutions, Health and Wellbeing

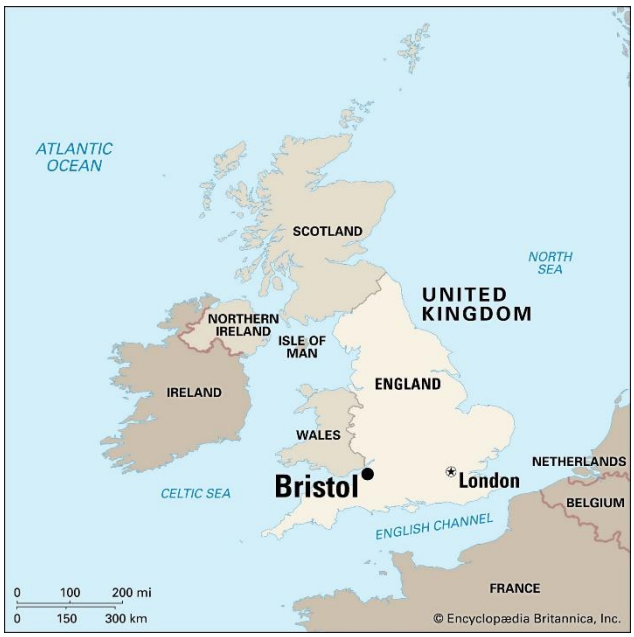

Figure 1: Location of Bristol. Image Credit: Britannica.

Climate Threats

Bristol, like much of the UK, is experiencing rising summer temperatures and more frequent, prolonged heatwaves. In 2023, the UK recorded one of its warmest years, and by 2080, average summer temperatures could rise by up to 6.7°C. These climatic shifts are straining healthcare systems, disrupting public transport, and disproportionately affecting vulnerable populations due to a lack of resources to protect themselves against extreme temperatures. Higher temperatures increase heat-related illnesses and mortality, especially among the elderly and those with pre-existing conditions, placing added pressure on health and social care services. At the same time, extreme heat can cause rail tracks to buckle, roads to degrade, and signalling equipment to overheat, leading to transport disruptions. Urban areas like Bristol are particularly vulnerable due to the Urban Heat Island effect, where heat-absorbing surfaces and limited green space cause cities to retain more heat than their surrounding areas.

Cool Spaces as a Response to Heat Risks

The city's cool spaces initiative establishes a network of accessible, safe, and welcoming public spaces that offer relief during high temperatures. These will be monitored and improved through ongoing community input and research. These spaces can provide support during heatwaves, such as drinking water, guidance on keeping homes cool, details on shaded local green spaces, and information from partners on relevant services. The cool space initiative is part of a wider framework, the Keep Bristol Cool

Framework, which outlines Bristol Council's plan for managing heat-related risks to the city's population, public services, and buildings. The framework covers areas such as protecting health and well-being, as well as tackling overheating in people's homes.

Bringing Together Local Stakeholders in a Workshop

A key part of this initiative is its focus on collaboration. In April 2025, the IMAGINE Adaptation project organised a workshop that brought together local community groups and representatives from the Community Climate Action Project to reflect on heatwave experiences and collaboratively envision what "cool" means in a public space, using a collage activity. The workshop took place in one of the potential cool spaces (Figure 2). Ideas of what characterises a cool public space included:

- **Natural shade (provided by trees)**: Trees offer effective cooling by blocking sunlight and lowering surrounding temperatures.
- **Water features and access to drinking water**: Help cool the area and prevent dehydration during hot weather.
- **Shaded seating and accessible toilets:** Ensure comfort and usability for everyone, including persons with disabilities.
- **A socially welcoming atmosphere**: People feel safe and comfortable using the space and its facilities without feeling the need to make a purchase.

The participants also discussed how to evaluate success, suggesting both quantitative (e.g., usage counts for each space) and qualitative (e.g., self-reported perceived comfort) metrics. Evaluating success is important to ensure that adaptation actions are effective, inclusive, and able to meet the needs of different community members under changing climate conditions. Discussions also addressed who may be excluded from these spaces, such as those experiencing homelessness or people with limited mobility, and how to design more equitable access. Persons with disabilities may face physical barriers, such as inaccessible entrances or a lack of appropriate facilities, while people experiencing homelessness may be discouraged from entering due to security policies or perceptions that the space is not intended for them.

Figure 2: Cool space collaborative design workshop using collage. Image Credit: IMAGINE Adaptation.

Building on these insights, Bristol City Council shaped the design of a pilot programme, encouraging participating spaces to be socially welcoming, safe, free, and easy to access, while also offering basic amenities such as free drinking water, seating, and accessible toilets.

Pilot Launch and Ongoing Input

The pilot phase of the cool spaces network (including 13 public spaces across the city) launched in July 2025 and will run until the end of September 2025. The pilot has already shown positive uptake and proved useful in highlighting future needs such as connectivity and accessibility. Monitoring and visitor feedback about the cool spaces will be used to inform planning and ensure the city continues to meet diverse needs in the following years.

> *"Our Keep Bristol Cool initiative highlighted the need to strengthen community resilience to the growing threat of heatwaves driven by climate change. Collaboratively designing cool spaces with local communities – and learning from the pilot phase – is essential to ensure the network of cool spaces is inclusive, effective, and meets the needs of Bristol's diverse population."*
>
> *Councillor Martin Fodor, Chair of Environment and Sustainability Policy Committee, Bristol City Council*

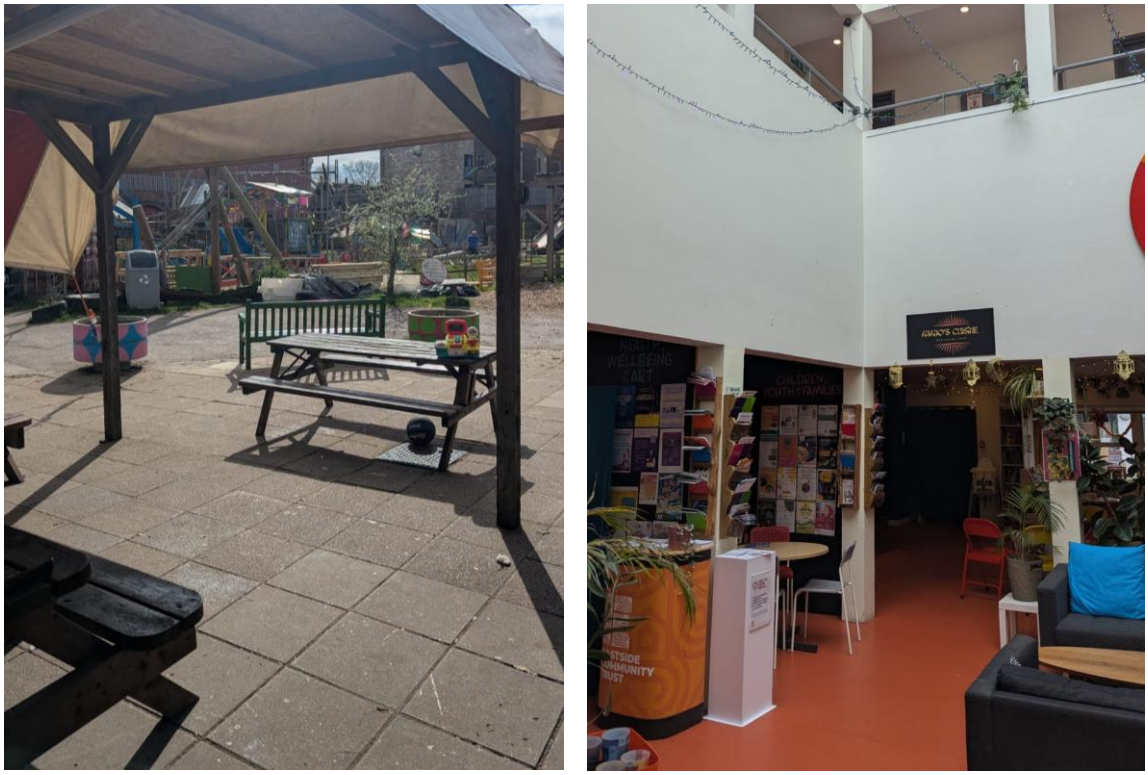

Figure 3: Two examples of the potential cool spaces included in the pilot. Felix Road Adventure Playground (left) and Eastside Community Centre (right). Image Credit: IMAGINE Adaptation.

Summary

In response to increasing heat risks, the city of Bristol is building a network of public spaces designed for comfort, safety, and inclusivity during extreme heat events. Early success is rooted in strong collaboration between the City Council, research partners, and local community groups. These efforts will evolve as Bristol City Council launches the pilot sites and, in collaboration with IMAGINE adaptation, continuously evaluates them using both usage data and user experiences to guide future improvements. Bristol's cool spaces network demonstrates how climate adaptation can be led by the community and based on evidence, with a collaborative workshop shaping the design of the spaces and a pilot inviting public feedback to ensure diverse needs are met.

Further information

The work presented in this adaptation story is part of the IMAGINE Adaptation project.

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