

The Founding Directors



Prof. Steffen Lehmann
Professor of Sustainable Architecture
The University of Portsmouth



Prof. Mark Gaterell
Professor of Sustainable Construction
The University of Portsmouth

“ Cities have never been more important than today, nor has the need to accelerate their transition to a low-carbon future. ”

Professor Steffen Lehmann,
Cluster Co-Director

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Faculty of Creative and Cultural Industries
and Faculty of Technology

**Cluster for
Sustainable Cities**



Welcome to the **Cluster for Sustainable Cities!**

Why Rethinking Cities?

Urbanisation is one of the defining challenges of our times. Our understanding of the urban, whether in theory or in practice, has reached a turning point, with cities across the world facing new, complex and challenging conditions that require resilience and adaptation to the impacts of environmental and social change.

With nearly 70% of the world's population likely to live in cities by 2030, the quality of life experienced by the urban population will determine our global future.

What is the Cluster for Sustainable Cities?

The Cluster for Sustainable Cities at the University of Portsmouth is an interdisciplinary research hub working at the interface of sustainable architecture, urban planning, social sciences, ICT and engineering. It contributes to the University's priority research theme 'Sustainability and the Environment' working across traditional disciplinary boundaries.

The **Cluster for Sustainable Cities** is committed to excellence in urban design thinking and communication, creating inventive solutions to address the global challenges of urbanism in the 21st century. It seeks to stimulate and deliver the research expertise necessary to develop the new knowledge required in the practice of sustainable urban development for the necessary transformation and regeneration process.

Our applied research is concerned with the development of new strategies towards the integration of sustainable technologies into a societal, urban and behavioural context, and the innovative re-thinking of urban futures - in partnership with industry, communities and government.

The Cluster is affiliated with the **Faculty of Creative and Cultural Industries** and the **Faculty of Technology** at the University of Portsmouth, as well as to industry partners and government agencies. The quality of our research and activities will be assured through an executive advisory board whose members are representatives of government, industry and academia.

The Cluster involves over 35 researchers from a wide range of disciplines in impactful, relevant and practical projects to deliver solution for better urbanisation, systems thinking for improved efficiencies, and the evidence base for future policy formulation and better decision making.

What are the Aims of the Cluster?

We have a clear pathway to impact: we conduct applied research on smart, resilient communities and integrated technologies that include citizen-centric solutions to meet the changing needs of urban areas and demographic shifts; providing a step change improvement in urban living and systems.

We collaborate with industry, government, public agencies, charities and communities to enable urban change and transformation that benefits the environment, promotes sustainable urban living and creates a carbon-neutral society.

The Cluster's engagement with government, industry and local community is critical in further strengthening the University's place as a leader in cities research in the UK, Europe and globally.



The Research Programme of the Cluster for Sustainable Cities

The Cluster is structured in a programme of five broad research streams that are central to driving innovation, each coordinated by research stream leaders:

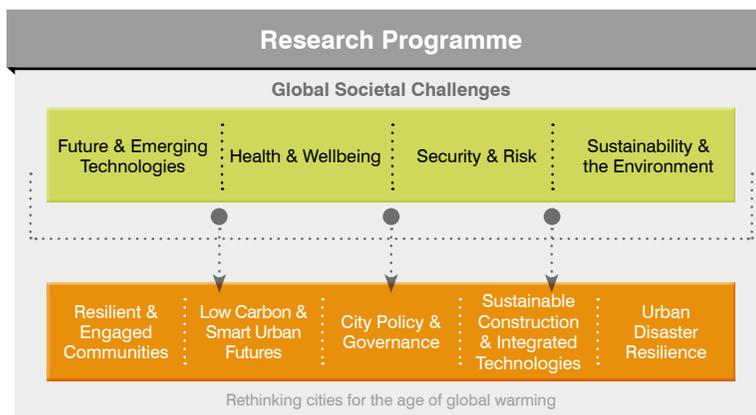
- **Transforming Communities: Resilient and Engaged Communities - Social and Cultural Sustainability** (led by: Dr Silvio Caputo and Dr Ann Coats)
- **Low Carbon Neighbourhoods and Smart Urban Futures, Intelligent Infrastructure - Urban Living** (led by: Prof Steffen Lehmann)
- **City Policy, Legislation and Urban Governance - Transition Pathways** (led by: Dr Alessandro Melis)
- **Sustainable Construction and New Integrated Technologies - Integration Strategies** (led by: Prof Mark Gaterell)
- **Urban Disaster Resilience - Environmental Burden and Communities at Risk** (led by: Dr Rob Inkpen)

Our Partners

We have developed powerful collaborations with some institutions involved in shaping urban futures, including AECOM, the City of Portsmouth, Atkins, RICS and Routledge, amongst others.

With our research agenda we cover the grand challenges in urban research and enable our

members to engage in research opportunities. These span from infrastructure (transport, water, energy, waste, food), across to the non-technical (social, behavioural, economic opportunities for urban interventions) and beyond into technical areas such as structures, safety, life-cycle and environmental systems.



Our Impact

The significant impact of our multidisciplinary research (in reach and significance) is found in influencing practice and improving urban policies and is tangible in:

- influencing decision-making, public policy and improving outcomes
- public sector and industry collaboration: uptake of concepts
- improving the efficiency of practice and technologies
- stimulating and leading public debate
- engaging the public with research and collaboration
- making research accessible for users to adopt
- identifying pathways to reduce greenhouse gas emissions, and
- enhancing understanding of, and guiding, sustainable growth.



The Strategy of the Cluster

1. Lead on urban innovation

The University requires increased leadership capacity and acumen towards innovation and entrepreneurship. We are prioritising new ways of doing things, unleashing the innovative potential in our research and actively promoting innovation growth by providing start-up seed funding and providing innovators with the platform, data and support to develop commercially valuable research and services.

2. A willingness to collaborate

The multi-disciplinary solutions to city challenges, both internal and external, don't reside solely with one discipline or group. The leading city regions engage their ecosystem as a valuable resource for a liveable city, working with entrepreneurs, universities, and their regional and global partners, to share, learn and jointly develop solutions. The Cluster will clearly demonstrate a willingness to collaborate with other stakeholders, industry and the community, engaging citizens in decision making and problem solving.

3. International outlook

The Cluster will increase international exposure and expand international linkages to enable global business connections, strengthening links between the Cluster, city and entrepreneurs.

4. Nurture the next generation of research leaders

The Cluster has established career pathways to encourage graduates to stay and engage in PhD studies. We aim to equip young academics with the relevant knowledge, ambition, skills and cultivate a culture of research and entrepreneurialism to develop new urban strategies.