



University  
of Glasgow



**InFrame**

**InFrame Transforming  
Research Cultures:  
Collaborations, Co-location and  
Challenges**

# Session 1: Shared Spaces

Chair: Professor Anne Kerr, University of Glasgow

## **Jorrit Smit, Universiteit Leiden:**

*(De)naturalizing science parks and knowledge ecosystems. How spaces and spatial metaphors close-down/open-up technoscience.*

Scientific research has always taken place in various forms on interaction with society. In the last three decades, there has been a strong push to increase the interactions between science, industry and society, so as to make it more 'societally robust', 'useful' or generate return-on-investment. In this talk, I discuss how spatiality is crucial to this policy debate and to institutional reorganizations: specific places are turned into spatial designs that come to circulate as blueprints for the organization of useful research, which also informs new spatial metaphors that further streamline research practices according to the same logic. Using the contemporary examples of science parks (as spaces) (Smit, 2021) and knowledge ecosystems (as spatial metaphors) (Smit, 2025), I weigh the ways in which this both opens up science to relations with economic actors, as well as closes down the socio-political imaginary of technoscience.

## **Betsy Barkas, University of Glasgow & Mark Cassidy, University of Edinburgh:**

*Notes from the field: Emergent themes from case studies in shared facilities and spaces*

Universities are increasingly turning to shared facilities to reduce the costs of space, energy and to transcend disciplinary silos. New practices of transdisciplinarity, transparency and collegiality are being cultivated via these arrangements, often part of institutional missions to improve research cultures and ecosystems. This work looked to explore how such spaces work with respect to engendering cultures of collaboration and knowledge exchange. Taking an ethnographic approach, we engaged with users of several shared facilities across two universities, covering differing notions of shared facilities from tradition ideas of shared analytical laboratories to wider notions of shared spaces as a place for collaboration and exchange. We outline emergent themes and discuss the boundaries and temporalities in sharing experiences and practices from various perspectives. These reveal several types of labour to facilitate sharing which can sometimes be unrecognised within assumptions of activities that make shared spaces work. This labour is important as a means of not only establishing values and norms of such spaces but also reconfiguring notions of hierarchy and status. We observed important “care work” through facilitating connections and pastoral care beyond exchange of technical knowledge. Facilitating communication was also observed as a significant factor in digital collaboration, especially curating opportunities for interaction in architecturally complex or hybrid spaces. These preliminary findings suggest that together these various types of at times hidden labour perform valuable functions in constructing cultures of collaboration and exchange.

## **Niki Vermeulen, University of Edinburgh:**

*Building collaboration: the Francis Crick Institute*

Based on the merger and co-location of two long-standing research institutes and involvement of three universities, the Francis Crick Institute is specifically designed to stimulate collaboration through sharing spaces and facilities. Positioned in the London Knowledge Quarter and pictured as a ‘cathedral for biomedicine’ (Callaway, 2015), the building, which opened in 2016, provides almost 1 million square feet divided over 7 floors, and houses 1500 research and support staff along 4000 metre of lab benches. Its collaborative ethos was underlined by the inaugural strategy document ‘Discovery without Boundaries’ (2013), stating how the Crick Institute aims ‘to carry out bold and innovative discovery research; develop excellence in young researchers; carry out multi-disciplinary collaboration and translation; and engage with the public’. As such, the Institute presents an ideal case for studying how a 21st century laboratory shapes its knowledge production. This paper tells the story of an experimental collaboration that gave a team of STS scholars temporary access to the building to document the biography of the Crick Institute.

# Session 2: Building Capacity

Chair: Lisa Bradley, University of Glasgow

**Lisa Bradley, University of Glasgow:**

*From Co-location to Collaboration: Building capacity across roles, relations, spaces, and systems at the Advanced Research Centre.*

This paper examines how interdisciplinary collaboration is produced, sustained, and constrained within a disciplinary university, using the University of Glasgow’s Advanced Research Centre as a situated case. Moving beyond assumptions that co-location naturally generates collaboration, the paper considers how interdisciplinary capacity is built through the interaction of roles, relations, spaces, and systems. I argue that collaboration depends not only on spatial proximity or strategic ambition, but on the intersection of organisational, material, relational, and imaginal infrastructures that make encounter, trust, translation, and experimentation possible. Drawing on initiatives – including Crafting the ARC, ARChitects, and the introduction of Creative Labs – I explore how collaborative cultures are assembled across academic and professional services roles, disciplinary boundaries, and institutional structures. A quilt, collectively made during Crafting the ARC, offers both a concrete example of collaboration in practice and a material metaphor for its wider conditions. It figures collaboration not as a seamless integration of parts, but as the careful composition of difference: a way of holding fragments, tensions, histories, and possibilities together, while keeping them visible, partial, and open to reworking.

**Jane Calvert, University of Edinburgh:**

*A Collaborative Researcher’s Packing list (co-authored with Robert Smith and Erika Szymanski)*

A collection of door wedges. A stack of cups and saucers, slightly chipped. Yorkshire Tea. Several pint glasses. Generous amounts of green glitter. A large wooden duck. One or two yoga blocks. Pop-up living room. Finnish knot stick. A dissent amplifier. A companion. Money. Social scientists who collaborate tend to move around. But what should we take with us to enable reflexive work? The more usual packing list might include a notebook and voice recorder. Our own experiences suggest we also need devices to stop things closing down, drinks of various kinds to cultivate peripheral conversations, shiny reminders that collaborations are often unexpected and emergent, and objects that will draw the attention of passers-by to our work. We need blocks for epistemic squatting in spaces where we can make a difference, tools to keep things uncomfortable and to relieve the resulting strain, and places we can call our own for a little while. Conceptual replenishment is obviously important, but most of all it helps to travel with a companion. By showing how we came up with this packing list, we hope to encourage others to create their own.

**Natalie Homer, RELAX Group:**

*Exploring research leadership and expertise in core facilities through networking*

Core facilities are central, open-access research resources that provide access to specialist expertise, advanced instrumentation, services, and consultation. When effectively managed, they consolidate resources and streamline costs while enabling a breadth of research, innovation, and teaching activity across institutions.

The professionals leading these facilities are highly specialised experts, often with substantial research experience. Their roles combine deep scientific and technical knowledge with skills in research and teaching, finances, people management, strategic planning, and user engagement.

Despite this, core facility leaders frequently occupy an ambiguous space between academic and technical career pathways. This limits recognition of their expertise, reduces opportunities to contribute to institutional strategy, and can result in professional isolation and restricted leadership development.

*Research Technical Professionals: Recognising Leadership & Expertise (RELAX)* is an InFrame-funded initiative designed to address these challenges by strengthening research culture through networking and leadership development across 3 Scottish universities. RELAX brings 30 core facility leaders together through dedicated development days that created space for connection, collaboration, and shared professional identity. By supporting peer networks and explicitly recognising leadership and expertise within core facilities, the initiative aims to enhance visibility, value, and resilience of these roles. In doing so, RELAX contributes to a more inclusive, collaborative, and sustainable research ecosystem within the University.

# Session 3: Public Engagement

Chair: Ellen Stewart, University of Glasgow

**Judith Tsouvalis, University of Glasgow:**

*Why and How Spaces, Public and Forms of Engagement Matter: Comparing Three Examples*

In this presentation, I reflect on public engagement through the constructivist lens of participation proposed by Science and Technology Studies (STS) scholars Jason Chilvers and Mathew Kearnes that publics, problems, and knowledges are not pre-given (i.e., they don’t exist fully formed before engagement processes begin) but are instead actively produced or “co-constructed” through participatory processes themselves. This means that decisions taken relating to the sites, forms, and temporalities of participatory processes, their framing and structuring, perceptions of who counts as a relevant public, and the forms of knowledge considered to matter will all impact on how boundaries between expertise and lay knowledge are produced in practice and participation can be performed, contributing to the construction of issue, publics, and relevant forms of expertise.

Here, I would like to instigate discussion of these insights by briefly outlining three examples of public engagement, two of which I have been involved in, the other which I have recently investigated as part of the POLART (policy and art) project: a participatory action group I was involved in as part of the Loweswater Care Project that met in a Village Hall, a co-design workshop I was part of orchestrated by Defra as part of post-Brexit agri-environment policy, and Bruno Latour's "thought exhibitions” held at the ZKM Centre for Art and Media in Karlsruhe, Germany.

**Catharina Landström,Chalmers University of Technology, Gothenburg:**

*Sharing digital knowledge infrastructures with invited public in participatory modelling*

The computer simulation models that scientists and experts use to study risks and hazards associated with water can be regarded as digital knowledge infrastructures. Such infrastructures are used for many different purposes, from university science to technical assessments. Not everybody uses the same model, professional technical consultants often use proprietary software packages provided by profit making businesses with dedicated software and customer support teams. In contrast university scientists often create their own models to test hypothesis and contribute to the scientific knowledge in their field. Scientists who have constructed computer simulation models that enable their team to address questions of scientific value can continue to elaborate their model for decades, applying it to different data, expanding its scope and making user interfaces more sophisticated. These scientists can be understood as having created a digital knowledge infrastructure subsystem, a space that they intellectually inhabit. Inviting members of the public into this digital space presents opportunities as well as challenges. In this presentation I outline three examples of scientists inviting publics to their digital knowledge infrastructures for participatory modelling and discuss how the processes and outcomes differed, depending on how the scientists related to their models.

**Hannah Scobie, University of Glasgow:**

*An evaluation of the University of Glasgow's Byres Community Hub*

Byres Community Hub (BCH) is a mixed-use community and engagement space within the University of Glasgow's Clarice Pears Building. BCH was established to strengthen relationships between the university and surrounding communities, support public engagement, and advance health and wellbeing through collaboration, research, and shared learning. This evaluation examined the wider impact of BCH and explored the people, place, and processes underpinning its effectiveness as a university–community interface. A qualitative process evaluation was undertaken using semi-structured interviews with internal and external stakeholders, including university staff, students, community members, and third-sector organisations, alongside non-participant observation. Data were analysed thematically.

Findings indicate that BCH functions as a valued space for collaboration, community connection, public engagement, and grassroots capacity building. Participants described BCH as reducing barriers between the university and local communities, fostering reciprocal rather than extractive relationships, and creating opportunities for informal learning and co-production. However, vulnerabilities were identified, including limited institutional resourcing, restricted opening hours, and the loss of the on-site café. Overall, BCH was perceived as an effective model of civic engagement whose sustainability depends on greater institutional support and investment.

# Session 4: International Research Infrastructures

Chair: Niki Vermeulen, University of Edinburgh

**Kyle Parker, University of Edinburgh:**

*Biofoundries and global approaches to biotech governance*

The Global Centres for Biofoundry Applications (GCBA) project is an international research consortium studying the development of biofoundries in the UK, the United States, Finland, South Korea, and Japan.

Initially conceived of as DNA synthesis labs, biofoundries have developed into facilities that incorporate automation and robotics with high-throughput analytical and data management tools for synthetic biology research. Both in the UK, and around the world, biofoundries are framed as critical pieces of scientific infrastructure, and a means of accelerating the growth and scale of synthetic biology and the 'bioeconomy.'

This talk will explore some of the work being done within the GCBA, looking at the challenges of building scientific infrastructure that is both attentive to local needs, and amenable to global collaboration. This work touches upon questions regarding data sharing & standardisation, IP & biosecurity concerns, as well as navigating diverse conceptions of the role of a biofoundry within a national, and inevitably international, scientific and industrial landscape

**Christina Aicardi, Kings College London:**

*Formal and informal infrastructures of collaboration in the Human Brain Project*

This paper draws on long-term engagement with the Human Brain Project (HBP) - one of the Future and Emerging Technology Flagship Initiatives funded by the European Commission from 2013, to address EU 'grand challenges' of understanding the human brain and applying these insights to brain-inspired technology development. Based on participant observation and interviews with researchers and project administrators, our findings suggested that the formal research infrastructure of the HBP, designed to facilitate interdisciplinary and international collaboration between scientists within and outside of the project, was in tension with the ways HBP scientists collaborated. While much of the literature on infrastructure focuses on 'top-down', formal infrastructural design, we also paid attention to the informal, 'bottom-up' infrastructural assemblage involved in large-scale interdisciplinary collaborations. This brought into question how scientists and science funders navigate the tensions and interactions between formal and informal infrastructure, rendering certain kinds of collaboration and knowledge (in)visible.

**Daria Jadreskic, University of Klagenfurt:**

*How to upgrade a particle detector: Technology development and technical review at CERN*

CERN's Large Hadron Collider is surely one of the best known shared experimental facilities in the world. It currently hosts nine particle detectors, and the collaborations gathered around them make up the experimental side of the international particle physics community. By sharing the collider, different collaborations that use it share the knowledge on how to build, operate, upgrade, and maintain a detector, as well as how to manage dispersed groups working on it.

The talk focuses on technology development at CERN by looking into the practice of technical reviewing at the ATLAS detector in the context of the Phase II upgrade. As part of the upgrade, contributing institutes design and build subdetector parts that get reviewed at several phases of the preproduction process by experts from other subdetectors and detectors, and by CERN's technical coordinators. Collaborating on the evaluation of the upgrade solutions, down to the level of electric chips and wires, the shared facility becomes shared expertise. Physics goals and resource limits need to be integrated in the engineering solutions, and different disciplinary cultures negotiate the trade-offs. Sometimes though, new engineering knowledge is required from the outside of CERN to introduce emerging technologies into the rather inflexible detector system.

# Plenary

*Research Cultures and Their Temporal Infrastructures: Between Repair, Maintenance, and Resistance*

This talk explores how research cultures are shaped not only by spatial arrangements, collaborative possibilities, boundary crossings, and struggles for resources, but also by the temporal infrastructures that traverse all of these. Academic work unfolds across multiple, often competing temporal regimes—project timelines, funding cycles, career stages, institutional rhythms, and societal expectations. These temporalities rarely align; instead, research cultures are constituted through persistent asynchronicities across collaborations (whether with other researchers or with civil society), institutions, and global research infrastructures. Drawing on the concept of chronopolitics, I examine how these asynchronicities are not simply obstacles to be overcome, but sites of ongoing work. Researchers engage in practices of repair and maintenance to hold their research environments together, while also resisting some of these temporal expectations and pressures. Attending to these dynamics also means asking on what assumptions, familiar routines, and largely unexamined modes of thought these practices rest. Such questioning opens up possibilities for rethinking contemporary research cultures

**Ulrike Felt**

Ulrike Felt is Professor of Science and Technology Studies, University of Vienna and a leading scholar of research and innovation cultures and regimes of knowledge production. Her recent book *Academic Times: Contesting the Chronopolitics of Research* | Springer Nature Link explores the possibilities for more responsive, long-term and equitable academic futures.

# Transforming research: The effects of sharing facilities on cultures and outcomes

An InFrame Culture Catalyst project funded by Wellcome Trust (August 2025-June 2026)

Universities are establishing shared space and equipment to foster collaboration, reduce energy consumption and duplication of resources, and accommodate growing number of staff in a finite estate. This project will explore and shape what sharing means for research cultures and outcomes, focusing on collaboration between disciplines and with other sectors and publics.

We will investigate what sharing means to researchers and other parties sharing facilities with them: What are the benefits and drawbacks of sharing facilities from the perspective of those involved? What norms, values and forms of knowledge does sharing facilities enable or weaken; who and what is involved in making a success of these arrangements? What practical steps can be taken to derive further benefits to research cultures and outputs from shared research facilities? We will conduct documentary analysis, interviews, focus groups and participant observation in key shared research facilities at the Universities of Edinburgh and Glasgow. Approaching research as a broad set of activities of knowledge production and dissemination, including less recognised labour of ‘sorting’ and ‘cleaning’, we will involve a range of building users with a diversity of characteristics and backgrounds, including in relation to career stage, discipline and job or civic role.

Our analysis will also incorporate institutional and public information and reports on building design, occupancy surveys and research awards, outputs and impacts. And we will engage with a broad network of experts and literature on collaboration, innovation and public engagement in research to help refine the research design, reflect on the findings and further research opportunities.

Providing insights into how research cultures and outcomes are evolving in shared facilities, we will identify different kinds of identities, care, leadership and organisation involved in making this a success, and suggest practical measures to further improve ways of working, research cultures and outcomes.



**InFrame Team:** Anne Kerr, Betsy Barkas, Ellen Stewart (University of Glasgow), Mark Cassidy, Sarah Cunningham-Burley, Niki Vermeulen, Valentina Guerrieri (University of Edinburgh) and Anna Brown (University of St Andrews)