



Acknowledgements

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Executive Summary

Introduction

Shared facilities are increasingly central to institutional strategies, designed to foster collaboration, reduce duplication, improve sustainability, and manage spatial constraints. The project explored how sharing is experienced by facility users, including its benefits, challenges, and implications for research cultures.

We considered 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?

Conceptual Framework

Drawing on Science and Technology Studies (STS), this project treats buildings as active agents in shaping research cultures. Facilities act as sites of knowledge production, status and hierarchy, and institutional identity. They are dynamic and continually reshaped through everyday practices, negotiations, and reinterpretation by users.

Methodology

The study adopts a qualitative multi-site case study approach across four shared facilities (two in Glasgow, two in Edinburgh). Data includes 33 semi-structured interviews, participant observation, and documentary analysis. Fieldnotes capture everyday interactions and informal encounters. The data was analysed through thematic coding.



Key Findings and Recommendations

Our findings show that shared facilities are shaped by everyday practices, spatial and technical constraints, institutional logics, and significant forms of emotional labour. Sharing could be episodic in different ways – from ‘hot desking’, to time slots with equipment, to events and engagement activities. Participants highlighted the challenge of managing user expectations alongside technical and research work, while competition for space, equipment, and movement between settings introduced additional complexity. Support staff played critical coordination and hospitality roles in sustaining these environments. Facilities also functioned as sites of prestige and hierarchy, with ongoing tensions around belonging and space as user communities shifted and norms were renegotiated. Financial pressures and cost-recovery models have expanded staff responsibilities toward management and facilitation, while collaboration requires active curation through both formal events and informal encounters. Care work and emotional labour emerged as central yet often under-recognised elements of successful sharing. At the same time, engagement with diverse publics has generated new forms of interaction, requiring active stewardship and bridging skills across communities. Finally, increasing hybridity and expanded access are blurring institutional boundaries and reshaping identities, adding further layers of complexity to the management of shared equipment and spaces.

Institutional Recommendations

1. Recognise and support the everyday work building users do to deliver shared research infrastructure.
2. Invest in roles that enable collaboration and interdisciplinary exchange.
3. Monitor belonging, inclusion, and hierarchy within shared spaces and support staff to address tensions and resolve challenges.
4. Design-in flexibility that allows for adaptation and new ways of using buildings and equipment.
5. Streamline governance structures for shared systems such as IT and budgeting.
6. Review how costs are measured and attributed to different activities and consider how to streamline accounting processes and invest in future benefits.
7. Improve booking, access, and space management systems to reduce inefficiencies.
8. Support hybrid working through better integration of physical and digital environments.

Conclusion

Shared research facilities are complex sociotechnical environments requiring continuous negotiation, mediation, and adaptation. While they enable collaboration and efficiency, they also introduce new tensions and forms of labour. Understanding and supporting the human and organisational dimensions of sharing is essential to their success.



1. Introduction

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

We set out to investigate what sharing means to researchers and others 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?

2. Background

Buildings have long occupied a central place in historical and sociological analyses of science and technology, not merely as physical infrastructures but as active elements within broader social and political contexts. Early historical studies of sites such as Cornell's Interdisciplinary Research Centre (Mody and Choi, 2013), Bell Labs (Gertner, 2012), and Westinghouse R&D laboratories (Coltman, 2004) demonstrate how buildings both reflect and shape institutional priorities and forms of knowledge production. Within Science and Technology Studies (STS), this perspective has been developed further through the concept of the "social work" that buildings perform: they act as "truth spots" or "elite knowledge centres" (Gieryn, 2002; Knorr-Cetina, 1999), while also accommodating diverse forms of knowledge work (Calvert, 2007). At the same time, buildings project status and hierarchy, embodying the symbolic capital of institutions and individuals, and signalling prestige and distinction (Traweek, 1988; Gieryn, 2002). Importantly, these meanings are not fixed; buildings are dynamic and subject to shifting interpretations over time, simultaneously shaping and being reshaped by their users (Gieryn, 2002). Parallel insights across other disciplinary literatures reinforce these themes, highlighting buildings as sites of interdisciplinary negotiation and power (Barry et al., 2008; Klein, 2023), as strategic instruments of control and distinction (Slaughter and Cantwell, 2012; Burrell, 2013; Dale and Burrell, 2008; Kornberger and Clegg, 2004), and as enduring—yet evolving—markers of institutional status and identity (Gregg and Lodato, 2018; Brighenti, 2010).

This project builds on these insights to focus on the work of making sharing a success. We are especially interested in how more complex sharing prompts new kinds of roles and labour, and how the



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current context of cost consciousness and a sense of crisis in the funding and status of H.E. affect these activities. We are sensitive, too, to the ways different 'bridging' activities are conducted by staff or other partners who are also bridging in the context of their own careers and the motivations for the work they do: piecing together an individual trajectory and future while enabling and facilitating different groups and communities of practice in the buildings we studied.

Methodology

We conducted documentary analysis, interviews 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 involved 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 incorporated institutional and public information and reports about the buildings. And we engaged 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.

We conducted four case studies of key shared research facilities at the Universities of Edinburgh and Glasgow. This included two sites at Glasgow and two at Edinburgh, all flagship buildings at both institutions. Three were new, purpose-built buildings, one was renovated and repurposed. The buildings included a range of users: three had spaces for business, spin-outs and industry as well as public sector partners; two hosted core facilities [large scale equipment shared by staff from across the institution] and involved close working with the NHS. Most of the users in one building were based there permanently as part of an academic unit. Other buildings had permanent professional service or other kinds of technical facilitation roles and research teams as user groups. Some of these research teams had facilities elsewhere too. Researchers moved in and out of the building to attend meetings, events and to use particular equipment. Three of the buildings were open to the public and community groups and there were a range of initiatives to support engagement activities either within the building or in community settings.

We initially planned to include a fifth facility in our research, but were unable to secure appropriate access to enable us to collect data as part of this case study. Gatekeeper concerns around protecting the reputation of the building and the sensitivities of building users, as well as issues with another planned research culture study, meant we were unable to negotiate access. The importance of this building as a signifier of sharing within the institution, meant that its reputation was carefully safeguarded. This restricted researchers from other parts of the institution from exploring how sharing worked in practice.

For our four case studies the researchers spent one or two days per week working in the building, for around 2 months per site. They conducted participant observation, including shadowing building users when they attended events or meetings and spending time in shared spaces. They also conducted interviews with a range of building users and reviewed documents, exhibitions and digital outputs about the buildings. This was all conducted with ethical approval from the InFrame institutions [ref UG21568].

Data collection consisted of:

- Recorded & transcribed semi-structured interviews, participant observation and documentary analysis
- Our work to date draws from 33 interviews and multiple fieldnotes (circa 12 episodes from each site)
- Fieldnotes represent a mixture of observations and informal conversations and encounters with building users

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

4. Data and Analysis

This section synthesises interview data, participant observation, and fieldnote vignettes to examine how shared research facilities are experienced and enacted in practice. It demonstrates that these environments are not simply infrastructural arrangements but complex socio-technical systems, sustained through negotiation, mediation, and multiple forms of labour.

4.1 Everyday Practices and the Work of Managing Shared Environments

Fieldwork across sites highlights that the everyday functioning of shared facilities depends on continuous coordination and interactional work which is under-recognised by institutions. While facilities were designed to optimise technical efficiency and collaboration, their day-to-day operation is shaped by interpersonal dynamics and user expectations.

One recurring theme concerns the management of users and their expectations. As one technician reflected during instrument shutdown procedures, *“sometimes the experiments are the easy part and managing the people is the challenge.”* This observation captures a core feature of shared environments: technical expertise alone is insufficient. Staff must also navigate disappointment,

uncertainty, and the pressures experienced by researchers whose experimental outcomes may not meet expectations. Facility staff described the difficulty of communicating unsuccessful results after long experimental processes, noting that users may *“expect too much or not understand the process”* while at the same time facing institutional pressures to deliver outputs. Such interactions foreground the relational work embedded in technical roles.

Competition for shared resources also shaped everyday practices. In one observation, a researcher described walking “up and down the corridor” searching for an available meeting space, while another participant noted how they add on ten minutes for their time required for a meeting to factor in the time taken to find an appropriate space. Both highlighting the scarcity of appropriate environments for collaboration or focused work at the time when it was needed. These experiences indicate that sharing introduces organisational challenges and new demands on building users, including time costs and cognitive load associated with navigating availability.

Support and interface roles are particularly significant in this context. Reception staff, for example, performed essential coordination tasks in shared facilities — managing bookings, directing visitors, resolving conflicts, and maintaining a welcoming atmosphere. One vignette describes a receptionist simultaneously handling event logistics, addressing user complaints, and guiding visitors through the building, reflecting the intensity and multiplicity of this role. This work exemplifies what might be understood as infrastructural labour, sustaining the usability and accessibility of shared spaces.

4.2 Shared Facilities as Sites of Social and Symbolic Capital

Beyond their functional role, shared facilities operated as sites of symbolic and social capital, shaping institutional identities and hierarchies.

These buildings were often described as “flagships,” projecting prestige and institutional ambition. Occupying space within them could confer legitimacy, as reflected in participant accounts such as: *“being hosted here is clearly a bigger asset.”* Access to such environments becomes a marker of status, both at the level of individuals and research groups.

However, this symbolic dimension also generated tensions. Spatial organisation—such as office allocation, hot-desking arrangements, or proximity to key resources—functioned as a marker of hierarchy. Participants noted uneven experiences of belonging, with one interviewee observing: *“I belong to the University... belonging to the [institute], maybe a bit less so.”*



These findings suggest that shared facilities reorganise not only physical space but also institutional affiliations and identities, sometimes producing dislocation or ambiguity.

4.3 Negotiating Cultures and Values of Sharing

Shared facilities gave rise to distinctive social dynamics that participants sometimes described in domestic terms. One participant likened the environment to *“a giant flat share”*, capturing the ongoing negotiation of norms, behaviours, and expectations.

Tensions often arise around:

- Noise and the use of open-plan areas
- Competing needs for collaboration and concentration
- The appropriate use of communal spaces

These tensions sometimes materialised through user-created signage or informal rules, reflecting attempts to stabilise expectations. However, such norms were not always universally agreed upon and may reflect underlying hierarchies of power or disciplinary cultures. Importantly, we found a gap between architectural intention and lived reality. Spaces designed to promote interaction could instead become quiet study areas, while transparent design features—such as glass walls—could undermine privacy. One participant noted that a public engagement space had effectively become a library-like environment for students, diverging from its intended function.

This demonstrates that users actively reconfigure and reinterpret space, reinforcing the idea that built environments are socially produced rather than deterministically shaping behaviour.

4.4 Financial Logics and the Reconfiguration of Roles

The operation of shared facilities was also deeply shaped by financial imperatives. While they were often justified in terms of collaboration and efficiency, they were simultaneously governed by cost-recovery requirements.

As one manager explained, *“we’re not meant to make money, but we do have to cost cover everything”*, highlighting the balancing act between access and sustainability. This financial logic introduced new pressures, particularly for technical and professional service staff who had to engage in budgeting, pricing, and resource allocation.

These expanded responsibilities are reflected in accounts such as: *“it’s a lot more of a managing challenge than it used to be... I really need to look after the money.”*

In some cases, this led to difficult decisions about equipment access, particularly when individual user requests could not be justified within a shared model. As another participant noted, decisions increasingly involve distinguishing between what users “want” and what they “need.”

4.5 Curating Interaction: The Work of Making Collaboration Happen

A central finding is that collaboration within shared facilities had to be actively produced and sustained.

While participants valued informal encounters and serendipity, these were sometimes difficult to achieve in hybrid working environments. One interviewee highlighted this challenge: *“I don’t know who else is in the building, so how do I collaborate?”*

In response, a range of practices developed to engineer interaction, including:

- Designing social spaces such as cafés and lounges
- Organising research events and networking opportunities
- Actively introducing researchers to one another
- Hosting creative or crafting events

Facility staff often played a key role in this process, acting as brokers who connect individuals across disciplinary or institutional boundaries. As one participant described, staff might *“put people together”* or suggest collaborations between groups working on related topics.

These findings underscore that shared facilities require ongoing curatorial work to realise their collaborative potential.

4.6 Care Work and Emotional Labour

One of the most striking themes emerging from the data is the prominence of care work and emotional labour within shared research environments.

Facility staff frequently provided informal support to researchers experiencing stress, uncertainty, or pressure. This included offering reassurance, managing difficult interactions, and creating supportive atmospheres. As one participant noted: *“sometimes the facility can be a safe space... go have a cup of tea and a biscuit, clearly you’re a bit stressed.”*



This pastoral dimension was increasingly recognised as part of their role, with staff describing themselves as “*agony aunts and uncles*.” At the same time, the emotional demands of this work could be significant, particularly where expectations are high and resources limited.

This was also the case for staff working with patients and publics as part of the institutional mission to increase engagement and involvement in research, particularly when working with vulnerable or marginalised communities where one participant described the importance of a ‘trauma-led’ approach to engagement and facilitation.

Notably, this labour was unevenly distributed and often under-recognised within institutional frameworks, despite being central to the functioning of shared spaces.

4.7 Infrastructure, Governance, and Breakdown

Moments of breakdown revealed the fragility and complexity of shared infrastructures. One vignette describes a hybrid meeting disrupted by repeated system update notifications, with no clear responsibility for resolving the issue. Attempts to identify the relevant IT authority were unsuccessful, highlighting fragmentation across institutional and organisational boundaries.

Such incidents illustrate how shared facilities depend on distributed systems of governance that were not always aligned. Budgetary ambiguity, unclear ownership, and institutional silos could undermine efficiency and user experience.

These challenges reflected broader tensions between:

- Integration and coordination
- Institutional autonomy and fragmentation

4.8 Shifting Boundaries and Hybrid Research Spaces

Shared facilities are increasingly characterised by expanded and porous boundaries, bringing together academic, clinical, commercial, and public users.

This shift reflects broader changes in research policy and funding, emphasising interdisciplinarity and engagement. However, it also introduces new complexities. Participants noted uncertainty around who belongs in the building and how to interpret different forms of presence.

Hybrid working further complicated this picture, creating ambiguity around participation and access. The result is a more fluid but also a more uncertain sense of community.

4.9 Cross-Cutting Insights

Across these themes, several overarching dynamics emerge:

- Shared facilities are sustained through continuous mediation and negotiation
- There was an ongoing tension between aspirational design and lived experience
- Some staff roles were being redefined toward facilitation, brokerage, and care
- Informal and emotional labour was central but under-recognised
- Users actively produced and reshaped space through everyday practices

Taken together, these findings demonstrate that “sharing” is not simply a structural arrangement but an active, labour-intensive process, shaped by institutional pressures, spatial design, and human interaction.

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