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## Article

# Access-Based Consumption in the Built Environment: Sharing Spaces

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**Abstract:** The pressing need to implement a more circular economy has led to advancements in the research field. In the spatial context, sharing spaces and access-over-ownership models have the potential to mitigate the detrimental environmental impacts of space use. This study aims to adapt an existing theoretical framework on access-based consumption to the spatial context. We utilise a qualitative case study approach exploring a variety of shared spaces from Northern Europe. Our findings suggest that shared spaces and their organisation are inherently fluid. The study further reveals that the physical object of sharing, even in the case of shared spaces, is being partially replaced with virtual and hybrid solutions. In fact, a hybrid solution seems to enable organisations delivering shared spaces to be more dynamic. Finally, we find that in the spatial context, two types of political consumerism prevail: decommercialization of spaces on the one hand and promoting environmental sustainability on the other. This study is the first to suggest a holistic framework for access-based consumption in the spatial context. The findings will be useful to scholars and practitioners engaged in developing, owning and providing services for shared spaces.

**Keywords:** access-based consumption; circular economy; collaborative consumption; collaborative spaces; co-location; co-working; hybrid spaces; serviced spaces; shared spaces; sharing economy



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## 1. Introduction

The pressing need to implement a more circular economy has led to advancements in research and increased knowledge around circular solutions such as sharing platforms and accessibility-over-ownership [1]. Access-based consumption gives access to products and services without the requirement of ownership [2–4]. This has a larger positive effect than partially offset negative environmental impacts from, e.g., recycling, as it addresses issues of overconsumption at its source [5]. Access over ownership is considered one type of sustainable business model [6]. A sustainable business model not only generates an economic return but also value in terms of ecological or social benefits [7]. Sustainable business models should further align the interests of all stakeholders, with the environment and society considered as key stakeholders [6].

Contradicting evidence about the environmental benefits of sharing also exists, mainly due to rebound effects [8]. It is likely, however, that for commodities with high carbon intensity (CO<sub>2</sub>e/€), sharing does indeed benefit the environment [9]. Buildings are an example of such high impact commodities, and therefore sharing spaces and access-over-ownership models in the spatial context have the potential to mitigate the detrimental environmental impacts of consumption [10–12].

Sharing economy research to date has to a large extent been focused on shared mobility [2,13–15]. Another well-researched context is peer-to-peer accommodation [3,16]. Foci of the studies vary from establishing the principles of sharing [3], economic impact [17–19] and social impact [20,21] to motivation [22,23] and consumer attitudes toward sharing [24].

Online platforms are strongly present in sharing economy research, even framed as a prerequisite [3,25]. In addition to the online platforms, Ranjibari et al. [3] note several principles for a sharing economy, including idle capacity, collaborative form, flexibility and convenience to user, sustainability, temporary access and non-ownership. Two opposing views dominate when it comes to the profit-making aspects of sharing. Belk [26] argues that exchanging money or expectations of reciprocity may not be considered true sharing. Curtis and Lehner [25], similarly to Belk [26], argue that the involvement of profit or payment is inconsistent with the “spirit” of a sharing economy. Instead, the sharing economy should be re-labelled access-based or collaborative consumption [25,27]. However, e.g., Ranjibari et al. [3] point out that for-profit activities are actually characteristic of sharing in the existing literature.

In addition to profit vs. non-profit sharing, the question of interpersonal motives has been debated. Belk [26] considers sharing with egoistic motives and the lack of community “sharing out”. “Sharing in” is in turn based on interpersonal ideals [26]. Öberg [28] argues that networks are increasingly emphasized and that there is a dimension of social ties in a sharing economy. The social dimension alters transactional platforms, and as the sharing solutions become more complex, the disconnect between economic and social ties increase [28]. Gorenflo and Smith [29] argue that self-interest and sharing go together, and that the sharing economy is about aligning self-interest and the common good [29].

Sharing in the spatial context has also been studied, most extensively through the co-working concept [30–33]. Both for-profit and non-profit models exist in the spatial context. However, non-profit sharing is rarely peer-to-peer sharing but rather the non-profit models are operated by the public or third sector [10,32]. Brinkø et al. [10] propose a typology of shared spaces in the context of public buildings, based on who is sharing (open, closed or semi-public community), what is shared (from a single desk to a network of buildings) and when it is shared (simultaneous or serial). It is worth noting that, although leased spaces have been prominent in the spatial context for decades, traditional long-term leases resemble ownership. Instead, access-over-ownership models in the built environment refer to flexible, short-term contracts or memberships, and access to joint spaces. Sharing of spaces is often driven by attempts to increase collaboration and a sense of community [32,34,35], although contradicting evidence about the actual benefit also exists [36].

The purpose of this paper is to provide a holistic framework for access-based consumption in the spatial context. We utilize the framework of Bardhi and Eckhardt [2] on the six dimensions of access-based consumption, detailed in the next Section. We complement the framework with existing knowledge relevant to the spatial context. We then analyse the dimensions against case studies of shared spaces and suggest a novel access-based consumption framework adapted to the spatial context. The focus is on the shared space itself, and different stakeholders’ views on how access-based consumption is organised in the spatial context.

The remainder of this paper is divided into six sections. Section 2 presents the theoretical framework used for the analysis. The following Section 3 describes the research design. Section 4 introduces the key findings, including an adapted framework for access-based consumption in the spatial context. Section 5 discusses the findings further, and Section 6 concludes the paper with some final remarks and suggestions for future research.

## 2. Theoretical Framework

Bardhi and Eckhardt [2] suggest six dimensions to describe access-based consumption (Table 1). The dimensions are: (1) temporality, (2) anonymity, (3) market mediation, (4) consumer involvement, (5) the type of accessed object and (6) political consumerism. The dimensions intend to elicit the nature of access from the consumer perspective, with each dimension entailing two “extremes”. Some of the dimensions include sub-dimensions to allow for a more nuanced depiction (presented in brackets in Table 1). This section briefly presents the framework, and links with existing knowledge from the spatial context. For

dimensions with insufficient existing knowledge from the spatial context, research from other related fields were utilised, e.g., organisational theory.

**Table 1.** Access-based consumption framework based on Bardhi and Eckhardt [2].

<i>One-off transaction</i>	<b>Temporality (access)</b>	<i>Longitudinal</i>
<i>Short-term</i>	<b>Temporality (duration)</b>	<i>Long-term</i>
<i>Anonymous</i>	<b>Anonymity (interpersonal)</b>	<i>Prosocial motivations</i>
<i>Intimate context</i>	<b>Anonymity (spatial)</b>	<i>Less intimate context</i>
<i>Profit business model</i>	<b>Market mediation</b>	<i>Non-profit business model</i>
<i>Self-serviced</i>	<b>Consumer involvement</b>	<i>Serviced</i>
<i>Physical</i>	<b>Type of accessed object (material)</b>	<i>Virtual</i>
<i>Functional</i>	<b>Type of accessed object (function)</b>	<i>Experiential</i>
<i>Non-political</i>	<b>Political consumerism</b>	<i>Signalling sharing as sustainable and antimarket</i>

*Temporality (access)* relates to the frequency of access [2]. In the spatial context, the question of when the object is accessed, is covered by, e.g., Brinkø et al.'s [10] typology of shared spaces, as well as in Echeverri et al. [33]. Both longitudinal memberships and drop-in visits are often possible in shared spaces, such as co-working offices [32]. Access 24 h a day has been found to be important in the spatial context [32,37].

*Temporality (duration)* distinguishes between long-term or short-term access [2]. Access-based consumption is inherently more temporary than ownership [2]. An important aspect of the co-working phenomena is the flexibility in terms of lease lengths [33,38]. Traditionally in the spatial context, leases have been up to 25 years, whereas nowadays a 10-year lease is considered long-term. Leases shorter than 1 year are still rare in this context. Longer-term use allows developing a relationship with and customization of the space that resembles ownership.

*Anonymity (interpersonal)*. Bardhi and Eckhardt [2] suggest the two extremes of the interpersonal anonymity dimension to be an anonymous “society of strangers”, and social access with prosocial motivations. Using Belk’s [26] terminology, an anonymous society of strangers would be classified as “sharing out”, i.e., sharing without a sense of community. Meanwhile, access with prosocial motivations would be “sharing in”, sharing with a sense of community. In the spatial context, the prosocial motivations of sharing are typical, with expected outcomes such as increased collaboration, chance encounters and a sense of community [32,33,35]. Yet, peer-to-peer sharing is uncommon. Anonymous sharing in a spatial context is only possible in serial sharing of spaces, as described by Brinkø et al. [10] and Echeverri et al. [33].

*Anonymity (spatial)*. The spatial anonymity dimension ranges from intimate to less intimate in relation to proximity to the end-users. The location of co-working spaces has been known to be the most important characteristic for users when selecting a space [34]. Access to better connectivity has also been found to be one of the key motivations for co-location [35]. However, it is important to note that, in the spatial context, the convenience of location differs depending on the user preferences, with some preferring central city locations with good transportation links and others a location close to home in order to minimise commutes (satellite location) [39,40].

*Market mediation*. Bardhi and Eckhardt [2] distinguish between profit and non-profit in the market mediation dimension. In the spatial context, Sankari [32] has developed co-working business models, dividing them into non-profit (public offices, third places and collaboration hubs) and for-profit (co-working hotels, incubators and shared studios). The non-profit models are not peer-to-peer sharing though, but rather spaces offered by public organisations. Berbegal-Mirabent [39] highlights the importance of flexible business models for shared spaces, specifically in the case of co-working.

*Consumer involvement.* The dimension of consumer involvement relates to the level of service provision, with fully serviced at one end and self-service at the other end of the scale. Self-service is thought to increase the commitment and identification with the shared object [2]. The commitment has been studied in the spatial context [37], where the “bottom-up”, self-serviced nature of a shared space was expected to improve the sense of ownership among users. A critical service in shared spaces is the role of a community facilitator [32,35,41,42]. The facilitator’s role varies in the existing research; however, Orel and Almedia [42] describe the role as enabling the successful formation of new collaborations and enhancing social bonds [31]. Co-working spaces are known to differ widely in terms of service provision [43].

*Type of accessed object (material).* This dimension concerns the relationship between physical and virtual objects [2]. Virtual technologies are becoming increasingly popular to support collaborative work in a variety of organisations [44,45]. Technology is seen as an enabler for an organisation to be dynamic, especially in terms of innovation [46]. Virtual space concepts are often considered ways to reduce the demand for space [11,47]. Belk [26] suggests that the camaraderie that can be found in physical spaces also can be found online. Space-as-a-service concepts [31] follow this development in the spatial context.

*Type of accessed object (functional).* This dimension determines whether the object is accessed for its physical or experiential attributes [2]. The experiential aspect has been studied in the spatial context, mostly through the chance encounters enabled by co-location [34–36]. Co-working was more about synergies and collaboration rather than the physical space when the concept was first founded [30]. The sharing of a space and the collaborative outcome of this can be fostered by enabling spatial elements as well as mediation mechanisms that create encounters and interactions between users [42]. Petrulaitiene et al. [31] found that it is still common for co-working hubs to promote functional space as opposed to experience. However, new cases, which make up only a small segment of the market, are starting to highlight the experience to a higher degree. Another co-working study [32] found that the failure of creating a culture meant the hubs were reduced to providing something more similar to ordinary office space. The atmosphere of a space was in the same research considered to be a cumulative effect of the environment, including the people, the design of the space and the available services [32]. The “experience design” is just as important as, not just the physical space, but the actual work being produced there [48]. Schorch [49] concludes that there is a mutually dependent relationship between the attributes of the physical space and the content and human experience.

*Political consumerism.* The promotion of ideological interests forms the basis for the dimension of political consumerism [2]. Antimarket is a form of political consumerism that is opposed to, or working against, commerce. Sharing can be antimarket in the way that consumers promote sustainability ideals through sharing; however, it can also include other ideological interests [2]. The way in which an entity that facilitates sharing is described in existing research differs. Curtis and Lehner [25] suggest that this is due to differences in goals, approaches and practices, which often relate to the ideologies and organisational values [50]. The reappropriation of spaces can be another way for an organisation to undertake antimarket behaviour. For instance, Yang [51] describes the reappropriation of cultural spaces in rural China as a means to communicate the support for an anti-capitalist market.

Table 2 includes a full list of the existing knowledge relevant to the spatial context that was used to complement and adapt the access-based consumption framework by Bardhi and Eckhardt [2]. The extremes of the dimensions are re-labelled based on terminology used in the literature from the spatial context (Table 2).

**Table 2.** Access-based consumption framework adapted with existing knowledge relevant to the spatial context.

<i>Drop-in spaces (one-off transaction)</i>	<b>Temporality (access)</b>	<i>Membership or lease usage (longitudinal)</i>
Echeverri et al. [33]; Sankari [32]		Echeverri et al. [33]; Sankari [32]
<i>Flexible and short lease</i>	<b>Temporality (duration)</b>	<i>Long lease</i>
Echeverri et al. [33]; Kojo and Nenonen [38]		Echeverri et al. [33]
<i>Serial sharing (anonymous)</i>	<b>Anonymity (interpersonal)</b>	<i>Community and collaboration (prosocial)</i>
Brinkø et al. [10]; Echeverri et al. [33]		Sankari [32]; Jakonen et al. [36]; Kyrö et al. [35]
<i>Satellite location (intimate context)</i>	<b>Anonymity (spatial)</b>	<i>Central location (less intimate context)</i>
Berbegal-Mirabent [39]; Capdevila [40]		Kyrö et al. [35]; Weijs-Perree et al. [34]
<i>Profit business model</i>	<b>Market mediation</b>	<i>Non-profit business model</i>
Öberg [28]; Gorenflo and Smith [29]; Sankari [32]; Berbegal-Mirabent [39]		Belk [26]; Curtis and Lehner [25]; Sankari [32]
<i>Self-serviced space</i>	<b>Consumer involvement</b>	<i>Serviced space</i>
Kyrö and Artto [37]; Servatay et al. [43]		Orel and Almedia [42]; Spinuzzi [41]; Sankari [32]; Petrulaitiene et al. [31]
<i>Physical space</i>	<b>Type of accessed object (material)</b>	<i>Virtual or hybrid space</i>
Brinkø et al. [10]; Echeverri et al. [33]		Höjer and Mjörnell [11]; Ness and Xing [47]; Peters and Manz [45]; de Jong et al. [44]; Gressgård [46]
<i>Functional space</i>	<b>Type of accessed object (function)</b>	<i>Experiential space</i>
Petrulaitiene et al. [31]; Sankari [32];		Sankari [32]; Brown [30]; Orel and Almedia [42]; Petrulaitiene et al. [31]; Gillen and Cheshire [48]; Schorch [49]
<i>Commercial space (non-political)</i>	<b>Political consumerism</b>	<i>Decommercialized space (signalling sharing as sustainable and antimarket)</i>
Curtis and Lehner [25]; Sankari [32]		Yang [51]

### 3. Research Design

The approach to theory was first deductive, as we utilize a pre-existing theoretical framework, see Table 1. However, the research includes inductive elements, as the theory is further developed and modified to fit a different context, that of shared spaces. We chose a qualitative case study approach as we wanted to explore a phenomenon in its real-life context [52] and gain new insights to an emerging topic. A flow chart of the case study design can be found in Figure 1.

#### 3.1. Case Study

The case selection followed strategic information-oriented sampling, in other words, the cases were selected based on certain characteristics that gave promise of their information content [53]. We utilised the maximum variation strategy and selected cases with very different and even unique characteristics [53]. Based on an initial desktop review, we selected cases with different types of shared spaces [10]. Using the co-working business model typology by Sankari [32], we made sure to include different types of collaborative models. Finally, each case was to have their own special characteristic, a niche, to make them unique for our study. Our selected cases comprise five cases from Sweden, one from Finland and one from the Netherlands. The cases are briefly presented in Table 3.

**Table 3.** Case selection criteria.

Case	Niche	Type of Sharing [10]	Business Model [32]
<b>Case Arts (SWE)</b>	Workspace for artists in a former factory, showcasing new ways to utilize space and regenerate post-industrial towns.	Sharing of several different types of spaces within a building in a closed community	Collaboration hub
<b>Case Creator (NL)</b>	Circular office park located in a contaminated area where plants are used for remediation.	Sharing of facilities in an open or semi-closed community	Collaboration hub
<b>Case Embassy (SWE)</b>	New development of an entire building block promoting sharing, innovation, sustainability and citizen dialogue.	Sharing of facilities between users in a network of buildings in an open, semi-closed or closed community	Third places
<b>Case Fabrik (SWE)</b>	Co-working and offices in a former factory, targeting creative industries	Sharing of facilities in an open or semi-closed community.	Third places
<b>Case Nest (FIN)</b>	Sustainability-themed co-working and event space focusing on dialogue and impact.	Sharing of facilities in an open or semi-closed community	Collaboration hub
<b>Case Station (SWE)</b>	Satellite office hotel at an operational small-town railway station	Sharing of a physical space within a building in a closed community.	Shared studios
<b>Case Unicorn (SWE)</b>	Co-working space for social impact start-ups in the central business district	Sharing of a physical space within a building in a closed community.	Incubator

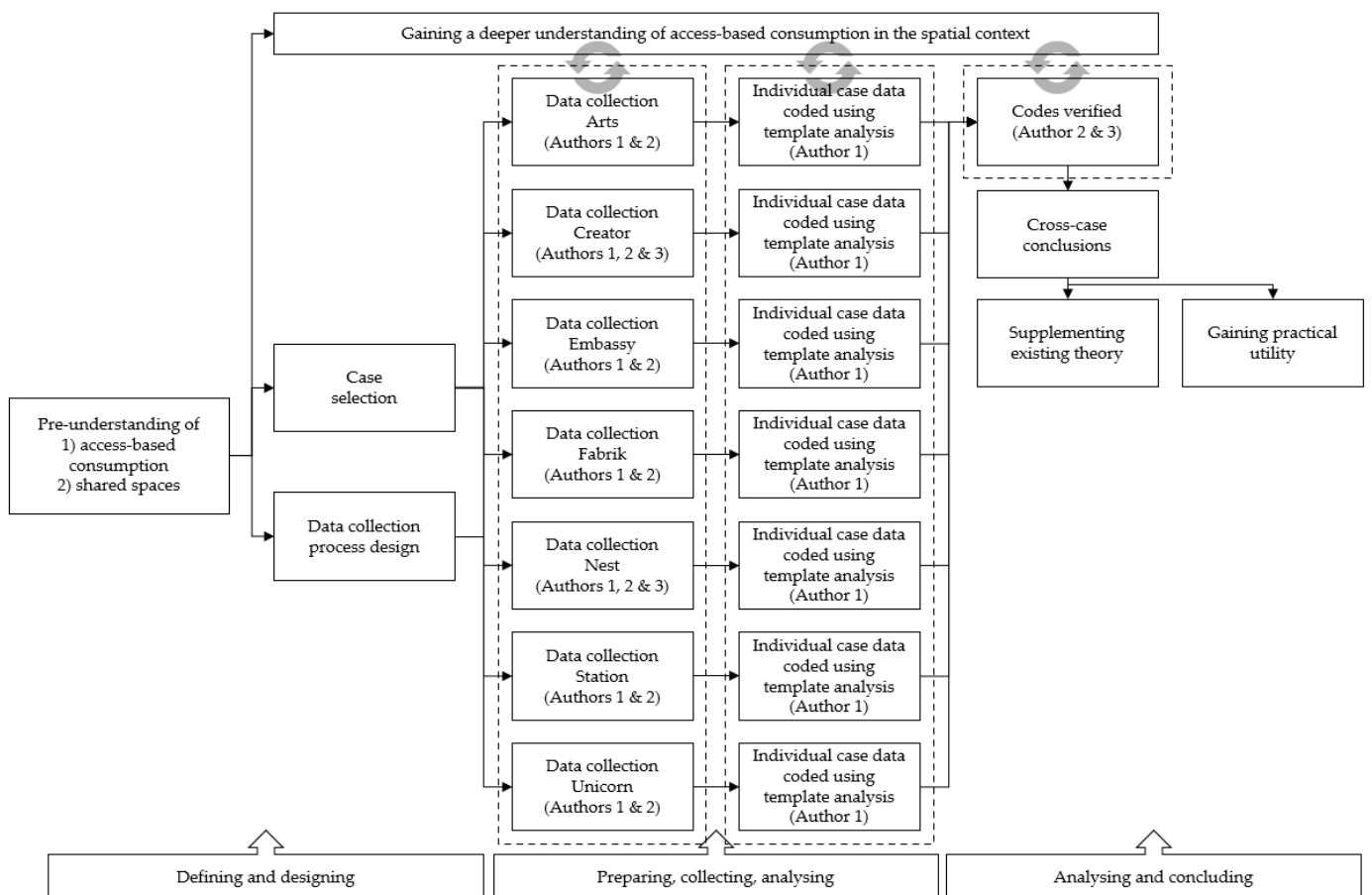
### 3.2. Data Collection and Analysis

Data for the cases were collected between March 2020 and March 2021 and include a mix of primary and secondary sources. Apart from interviews conducted during site visits, most of the 32 interviews were conducted online due to the ongoing COVID-19 pandemic. Sixteen of the interviews were held in Swedish, 14 in English and 2 in Finnish. Twenty-eight were individual interviews, with three group interviews, resulting in total 36 informants. The informants represent various roles, including owners, developers, project managers, architects, construction consultants, service providers, public officials and end-users.

Open-ended, themed interviews were used in order to gain richer data and allow the interviewees the freedom to discuss things they found most relevant. The themes comprised: (i) concept and business model (including target group, revenue model, resources); (ii) sustainability (environmental, social, cultural); (iii) end-user engagement (resources, practicalities, virtual engagement). For relevant cases, the economic, environmental and cultural heritage implications of adaptive reuse were also discussed. The interviews ranged from 75 min in-depth, online interviews to swift, 5-min walking interviews onsite. The total length of the recordings is 1167 min. Interviews, as well as site visits, were either joined by all, or two of the three authors.

All recorded interviews were transcribed by a professional transcription service in the original language. To complement the interviews, secondary sources including reports, social media accounts, newsletters, websites and other written documents were included in the analysis. A full list of interviews, informants and quoted documents with their respective anonymisation codes is available as Appendix A.

All interview transcripts, notes and written documents were coded using template analysis [54]. First, the access-based consumption dimensions from Bardhi and Eckhardt [2] were used to initially structure the data from interview transcripts and written documents in a spreadsheet. Any information gaps were filled with observations made during the site visits. The structured data were then developed into 317 codes, which were again categorized into the original six dimensions and their respective sub-dimensions, as well as three new sub-dimensions emerging from the data. Temporality in the organisational meaning, political consumerism divided into sustainability and antimarket considerations were lifted as separate, new categories. The analysis process was collaborative and iterative between the researchers, where the first author conducted the first and second phases, and the others reviewed and confirmed the third phase.



**Figure 1.** Illustration of the case study design. Adapted from Jylhä and Junnila [55], originally inspired by [52].

#### 4. Findings

This section first presents some key characteristics of the cases (Table 4), followed by the findings from each of the case studies. The findings are organised based on the original dimensions of the access-based consumption framework, complemented with new ones emerging from the data. Figures 2–8 provide a visual representation of the cases against the dimensions. Each case was scored on a scale for each of the dimensions and



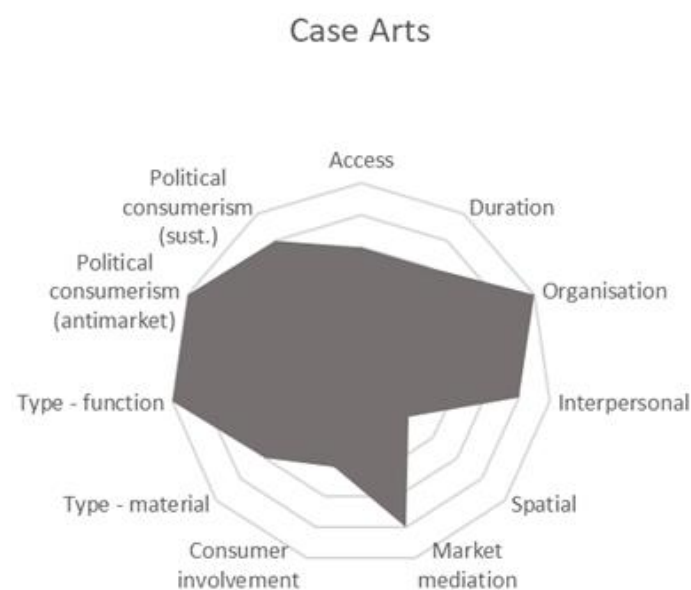
sub-dimensions, based on their positioning on a sliding scale. In the instances where cases were positioned on both sides, they were scored in the middle.

**Table 4.** Key Case Characteristics.

Case	Characteristics	Facilities
<b>Case Arts (SWE)</b>	Developed: 1938–1939 For current use: 2017 Ownership: Private *	Size: 5500 sqm workspaces; studios; exhibition hall
<b>Case Creator (NL)</b>	Developed: 1919 For current use: 2014 Ownership: 3rd sector	Size: 1250 sqm co-working space; offices; restaurant; café
<b>Case Embassy (SWE)</b>	Developed: 2022 For current use: n/a Ownership: Private	Size: 75,000 sqm offices; co-working; restaurants; retail, library
<b>Case Fabrik (SWE)</b>	Developed: 1901 For current use: 2022 Ownership: Private	Size: 4850 sqm co-working, workshops, offices, cafés
<b>Case Nest (FIN)</b>	Developed: 1898 For current use: 2022 Ownership: 3rd sector **	Size: 1500 sqm co-working; offices; event space; café
<b>Case Station (SWE)</b>	Developed: 1885 For current use: 2012 Ownership: Private	Size: 500 sqm offices
<b>Case Unicorn (SWE)</b>	Developed: 1905 For current use: 2017 Ownership: 3rd sector **	Size: 2400 sqm co-working; offices; restaurant, event space

\* a limited liability company with special limitation on dividends \*\* not-for-profit foundation.

The findings are supported by descriptive quotes from the data, please refer to Appendix A. Non-English language quotes have been translated from the original language by the authors. The individual case analyses are followed by a cross-case analysis.



**Figure 2.** Case Arts against the access-based consumption dimensions.

### Case Creator

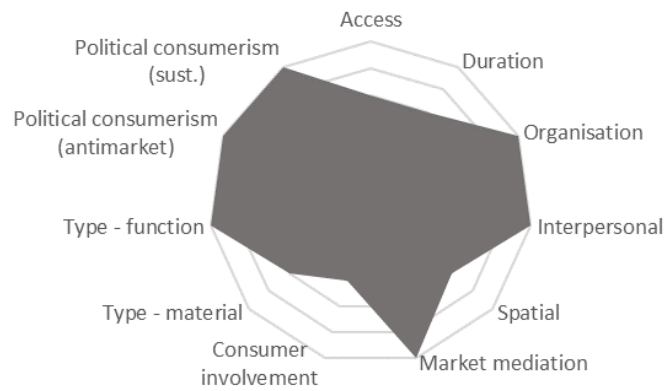


Figure 3. Case Creator against the access-based consumption dimensions.

### Case Embassy

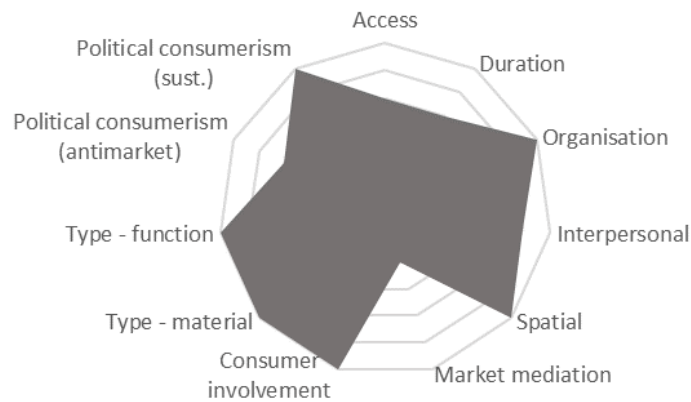


Figure 4. Case Embassy against the access-based consumption dimensions.

### Case Fabrik

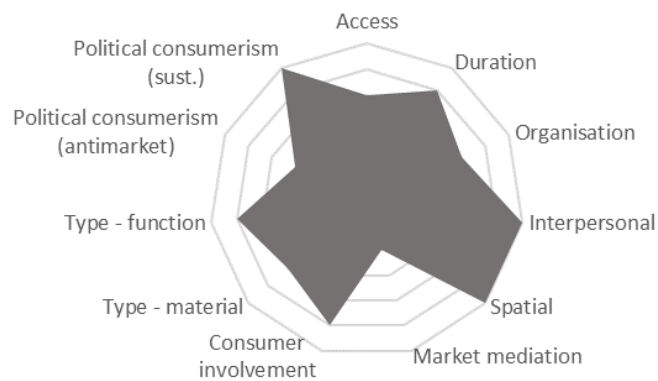
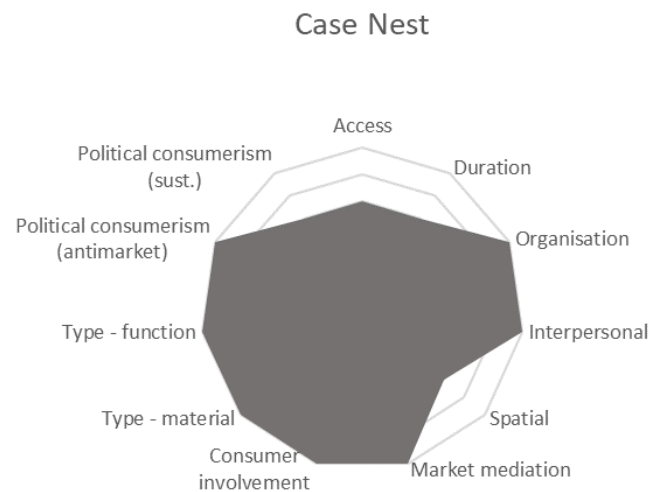
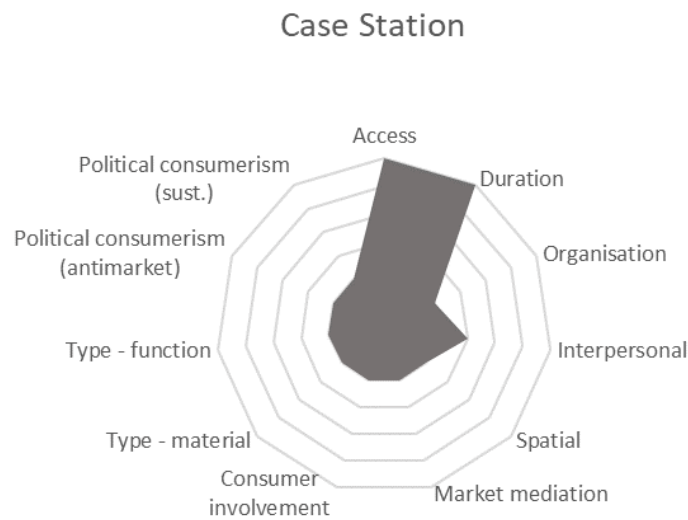


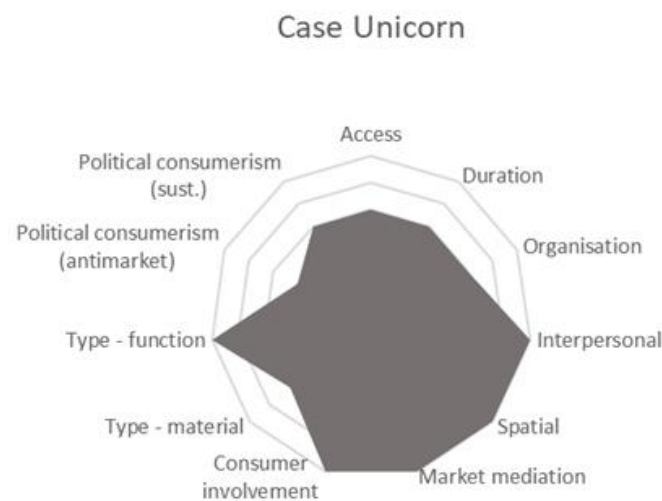
Figure 5. Case Fabrik against the access-based consumption dimensions.



**Figure 6.** Case Nest against the access-based consumption dimensions.



**Figure 7.** Case Station against the access-based consumption dimensions.



**Figure 8.** Case Unicorn against the access-based consumption dimensions.

#### 4.1. Case Arts

Case Arts is an old industrial building that has been repurposed as spaces for arts and culture. Visitors to the art gallery, guided tours and workshops represent one-off usage,

although rarely drop-in. The workspaces can be accessed short- or long-term for resident artists staying for longer periods or re-returning for shorter periods; *“I think it’s both working with these local roots system of networking people who are coming there, artists that rent the space, but also these more residential people coming from a global perspective doing projects and then going back”* (Arts\_N1). A new aspect of temporality, the temporality of the organisation, in terms of goals, processes, and practices, arose from our interviews: *“We are constantly brainstorming ideas”* (Arts\_N7).

The sharing of space is at times for the space itself and at times with prosocial motivations. The sharing is not at the core of the organisation, and some are there to focus on their work and others to collaborate. One artist describes their experience as follows: *“I have the solitude that I need to focus on my work”* (Arts\_N4) and another as a *“collaborative artistic experience”* (Arts\_N1).

The location is important in terms of the cultural heritage of the site and the links to the current use. The space also has a positive impact on the local town; however there are issues with access due to most of the site being inside an active industrial area; *“You have to be 15 to enter the area, which makes it difficult for the kids, kids can’t come in”* (Arts\_N9). The site, located in the centre of town, is visited by people from around the region, some from other parts of the country, and even internationally.

The organisation is a limited company with a profit limitation and thus exhibits the qualities of a non-profit organisation. This is further enhanced by the heavy reliance on subsidies from the public sector and the *“do-it-yourself”* attitude: *“I don’t think it’s a traditional way of doing it, but it’s very inspirational and a grassroots way of doing things”* (Arts\_N1). However, in many cases the user pays a fee to enter the site. The users of the space are a mix of public sector and for-profit; however, as it operates within the cultural sector, it is more common for non-profit or low profit organisations to use the space.

The space is mostly self-serviced with some provision of equipment and materials (pay per use) with active participation by users and volunteers: *“Many would be willing to gift or lend equipment and to volunteer with cleaning and renovation”* (Arts\_D2). Organising of events, workshops, etc., is mostly carried out by users, and exhibitions and school activities are organised by the main organisation. The sharing and content are mainly focused around the physical space; however, there is a limited presence on social media, which is primarily one-way communication. Some use the space for its physical features (e.g., light, big, open, high ceilings); however, it is more common to use the space to collaborate and experience culture: *“It’s very important to me to come there and have a large studio space with the materials that is there, the knowledge that [N.N.] has about concrete, for example, and, like, to have a platform to develop largescale works for public spaces, because in my home studio, it’s not possible to have storage for those largescale projects.”* (Arts\_N1).

As a former manufacturing site, the reappropriation of spaces from commercialisation is evident and a strong indicator of antimarket consumerism. The organisation also signals culture as antimarket. Sustainable consumption is predominantly focused on the reuse of materials and adaptive reuse of the building itself, as well as social sustainability through culture and job opportunities: *“I think that that is important to change—that we have culture available to both to adults and to children everywhere. Not just in the big cities”* (Arts\_N6).

Figure 2 presents Case Arts against the suggested access-based consumption framework for the spatial context.

#### 4.2. Case Creator

Case Creator is a circular office park targeting creative and social companies and entrepreneurs. The former harbour area has been leased since 2012 from the municipality with a 10-year lease, and is used as an incubator for creative industries. When the site was first occupied by the current operator, they received 16 houseboats as a donation, and placed them on the grounds.

There are currently approx. 60 tenants onsite. The houseboats are most commonly leased by one main tenant per boat, who then in turn is free to sub-lease spaces: *“And quite*

*soon, every boat was, yes, assigned to a main renter or a group of renters, or a main renter that have sub-renters, smaller and bigger offices. I'm in a boat with more people together, for instance" (Creator\_N1).*

The head tenant usually has a long-term lease; however, the sub-leases vary in length, with shorter leases more common. Case Creator welcomes any type of creative professionals, including architects, designers and artists. The spaces are also occupied by organisations within the social and environmental sustainability fields who are drawn to the site due to the mission and values it embodies, and as the definition of creatives is expanding to include these fields and many others.

The spaces are mostly accessed by the tenants; however, the café and guided tours open the possibility for drop-in usage. The café hosts events of different kinds, inviting those who might otherwise not visit the site to take part in activities. The site also hosts a hostel, sauna and hot tub facilities, which are used by the general public at a cost.

The temporality of the organisation is clearly present in this case. *"Case Creator is not only a "forbidden garden" which will leave behind cleaner soil, but also a playground for sustainable technologies" (Creator\_D1).* The phrasing of "leave behind" indicates that the space will not be permanent. There is also an idea that the area is never ready: *"However, case Creator really is never finished and is in a perpetual state of development" (Creator\_D1).* The existence of a post-site working group also suggests that the organisation is intending to develop in some form beyond the 10-year lease with the municipality.

The site is a cultural urban hub, that aims to work with like-minded people. One of the houseboats hosts a co-working lab that has built many of the sustainable solutions onsite. The construction of the houseboat and related facilities was funded by a foundation that supports entrepreneurs and initiatives that are green, socially inclusive and creative. The tenants help each other when possible and it has created a social synergy on the site. Everyone is expected to contribute to the circularity of the area, e.g., through the use of dry composting toilets. Being part of the community is the main driver for occupying space at the site.

The site is located in a former shipyard in a canal in Amsterdam North and has access to Amsterdam's waterfront. The area is dedicated as a circular test area, and as a contaminated former shipyard, the site itself is thus of importance to the mission of the organisation. The location of the site is not in the city centre; however, it is easily accessible by public transport and bicycle, and the organisation involves the locals in the activities on the site: *"More people of Amsterdam North, with, yes, if you have no money, and you combine that with the creativity and the environmental site, you know, recycling idea, the recycling thinking, then you have a match. Because if you can turn plastic waste for instance into art, this is what, if you can inspire local people that you can create value, and at the same time do recycling, this is a match made in heaven. So, we really do search for what brings the [Creator] ideology and the locals together. And this is one of them" (Creator\_N1).*

Case Creator is cooperatively built and managed by a non-profit association of tenants. The board is based on voluntary contributions and is elected: *"The board manages the site, the contacts with the various tenants and the external contacts with the municipality, partners and others" (Creator\_D2).* The organisation was financed by two instruments: through a subsidy from of the Municipality of Amsterdam, as well as a bank loan. The loaned capital was used to build the site infrastructure. The income from the leases is used to amortize the loan.

The non-profit association of tenants takes care of the maintenance, with tenants often assisting in the maintenance themselves and helping each other based on their skillsets. When the houseboats first arrived onsite, they were retrofitted by the tenants themselves: *"It's a collective effort. Somebody is good at, you know, technical renovation, and another person says, I will paint" (Creator\_N1).* The association is also ensuring the contaminated soil is cleaned using living plants (called phytoremediation). The soil remediation is managed by one hired landscape architect and, otherwise, volunteers.

The site and organisation are local in nature and attract those in the area who are interested in sustainability. The organisation has a website; however, there is no online community or interaction as such in a virtual space: “so . . . if you want something, you call. Yes, these are really, people really want to do something, and not just chat about it” (Creator\_N1). The website allows for guided tour and restaurant booking, which offers the opportunity to visit the site and learn more about the activities. The restaurant is the site’s main attraction for outsiders, and the restaurant entrepreneurs work closely with the board of the site. The restaurant has very special aesthetics, as it is an old lifeguarding kiosk from a local harbour, hosting 80-year-old nautical bollards. The hotel also adds to the aesthetics of the site, with one houseboat for the reception and shared spaces, and six floating historical ships as hotel rooms. The houseboats occupied by organisations and entrepreneurs as offices are nestled in a green bushy landscape connected by a wooden walkway, adding to the sense of the site and its purpose as a sustainable site: “It looks like a tidal wave throwing these objects, you know, in a green sea” (Creator\_N1). The mission of the organisation and the expression this takes in the physical form is the main reason for visiting the site and utilising the spaces together with being part of the community.

One of the houseboats is a multifunctional studio and develops its own cultural program, including small-scale activities open to the public. The case aims to: “plant seeds in the hearts and minds of our visitors that will grow into more involvement with sustainability, innovation and the role of culture and art in that movement” (Creator\_D1). Through creating a non-profit sustainable space in the place of an old shipyard, the site has reappropriated spaces from commercialisation. However, the spaces onsite are not generally free to use by the public, unless invited through a form of event. The restaurant is open to the public on a daily basis, though cannot be considered a decommercialized space.

Figure 3 presents Case Creator against the suggested access-based consumption framework for the spatial context.

#### 4.3. Case Embassy

Case Embassy consists of a block with seven buildings currently under construction in an area promoted by the city as an area with a sustainability focus. There will be public spaces in the form of social nodes, restaurant(s), café(s), etc., which can be accessed as drop-in usage. For the buildings with commercial use, there is a mix of lease period lengths as well as the possibility of introducing memberships: “We have realised that too after this pandemic, that we will need to be a lot more flexible. [ . . . ] But it is a big advantage for us as owners to have leases which stretch over several years” (Embassy\_N1).

The aim is for the organisation, space and concept to continue evolving over time: “With the project, and what we want it to lead to, what kind of, that is also part of the future of both business, and future of the more resilient societies or sustainable societies, that we are part of that journey together” (Embassy\_N2).

The site is located in an up-and-coming area in a city with good transportation links both locally and internationally. The area is targeted to be a sustainable area within the city; however, it is all greenfield development. The space is targeted at the people living in or around the area, a place of diverse socioeconomic status, and the aim is to enhance its social sustainability.

The sharing of space is mostly with prosocial motivations, which is also what the organisation brand is; however, the use of much of the space comes at a cost, although there will be several spaces that will be free to use. The organisation being for-profit should bring it closer to Belk’s [26] definition of “sharing out”; however, this does not seem to be the case due to the innovative nature of the intent of the sharing: “That’s kind of the foundation here, equality. To give people the ability to meet on equal terms” (Embassy\_N1).

The building owner and developer is a for-profit organisation: “We are a property development organisation, so we work with construction of buildings and leasing commercial and residential space. And, so, our business model is pretty clear around that” (Embassy\_N2). Many tenants will be for-profit organisations but there will also be public sector organisations,

most of which provide services within the social and health sector. The intent is for the spaces to be inclusive and add to the social sustainability of the area.

There will be an “in-use-organisation” that will be in charge of the public spaces, bookable rooms, co-working spaces and the reception. They will also be responsible for providing content, enabling collaboration and managing the community: *“It’s the content and the community work, and the development work, connected to [continuing] the sustainability work”* (Embassy\_N2). The facilitator(s) will also be facilitating services that are not provided in-house on behalf of the users, such as catering. There are also discussions around creating a local currency.

The project has a strong online presence, which is to be maintained once the buildings are opened: *“When we talk about [Embassy], I think it’s an area where we will see larger steps in terms of digitalisation, for example. And with digital solutions you can offer and deliver a lot of services in an easier way”* (Embassy\_N4). It is not necessarily the same community that will utilise the building; however, there will likely be some cross-over. The online community has a wider focus, whilst the building is more local.

The project has a big sustainability focus and sharing is one of the concepts chosen for the facility for it to be sustainable, together with using recycled materials, etc.: *“[Embassy] will contribute to testing and developing new ways of working and collaborating for us to be able to work a bit more with holistic sustainability [ . . . ] a role model for how you can work with sustainable societal development, or sustainable urban planning”* (Embassy\_N2). It is likely that the users of the space will be drawn to the building due to its innovative sustainability aspects; even though the rents will be high due to the nature of the business model and Embassy being a new build. It is expected that the experiential value will outweigh this added cost: *“An area which you want to be in”* (Embassy\_N4).

Figure 4 presents Case Embassy against the suggested access-based consumption framework for the spatial context.

#### 4.4. Case Fabrik

Case Fabrik is an old industrial building in the central parts of a city. It has previously been reused as quarters for the cultural sector and has been owned by the same organisation for approximately 40 years. In order to keep the building occupied major renovations were required which are currently underway. The new concept will remain as spaces for the cultural sector, however, with an added focus on sharing and shared spaces. The access will be mostly long-term contracts for most of the spaces. There are plans for some public spaces, which can be accessed as a one-off. The leases permit sub-leasing, which can allow for spaces to be leased on a shorter term and as drop-in. The main organisation is somewhat static; however, there are parts that will be evolving over time in terms of the concept.

The sharing of space is mostly with prosocial motivations: *“Creating spaces for co-operation. To tie it together, everyone that will sit in this building will have communal spaces”* (Fabrik\_N3). However, the use of much of the space comes at a cost. The organisation being a for-profit organisation could also make it close to “sharing out”, although the strong emphasis on sharing limits the likeness to “sharing out”: *“We have [an idea] of how we are stimulating sharing and so on, to work . . . exchanging services, even spaces, with each other. That’s the whole idea that’s with us”* (Fabrik\_N3).

The site is located in close proximity to public transport and bicycle friendly streets and lanes in the centre of town. However, the area is not considered to be as attractive as other central city locations: *“We are market leaders in terms of rental levels in this building, per square meter. That’s not to say that it’s expensive, but it’s very low rental levels at the moment”* (Fabrik\_N3). It is, on the other hand, in an area that is known for its cultural scene and those are the users who are targeted: *“We are interested by that . . . the ones that were sitting here [in the building]. And that was culture . . . for journalists and . . . advertisers and creatives, all creative jobs and sectors. Artists and . . . ”* (Fabrik\_N3).

The building owner is a for-profit organisation and most, if not all, of the longer-term tenants are for-profit. The largest tenant is an architecture firm, also closely involved with

the renovation and design of the adapted space. The spaces have been adapted into smaller spaces and allow for sharing to enable the lesser-profit organisations to use the space: *“When it comes to the tenants, we realised that they will not be able to carry [the cost of] these large spaces, so we have to work with a more compact [space] distribution” (Fabrik\_N2).*

A community manager for the building is planned; however, the level of involvement in providing services is at this time not established. The lease has an appendix related to the expectations of sharing and the relationship management: *“The person who rents office space in [Fabrik] can contribute to and strengthen the vision through participating in the relationship management’s activity in the area” (Fabrik\_D3).*

On the organisation’s webpage there is detailed information about the building, the history and the current renovations. The organisation also has a Facebook page; however, this is not specific to this building. YouTube videos showcase the building renovation project and have been posted by the organisation and the architects. Despite a rather strong online presence, there is no online community, and the content sharing is directed one-way. The cultural heritage of the building has an impact on the attractiveness of the space due to the type of tenants the organisation is wanting to attract (cultural sector). The experience in relation to this is likely part of the reason for using the space: *“[We] have tried to recreate an environment that feels inspiring from the start” (Fabrik\_N3).*

The project has a large sustainability focus and sharing is one of the concepts chosen for the facility in order for it to be environmentally sustainable, together with adaptive reuse, reuse of materials, etc.: *“When it comes to sustainability [Fabrik] has had the starting point of climate sustainability and circular business models” (Fabrik\_D3).* The project has some elements of appropriating spaces from commercial use in the way that the intention is for there to be public spaces that are free to use, as well as working closely with the neighbourhood and local school in terms of culture and safety.

Figure 5 presents Case Embassy against the suggested access-based consumption framework for the spatial context.

#### 4.5. Case Nest

Case Nest is mainly a co-working hub for researchers within the field of environmental sustainability, as well as a place for sustainability dialogue to take place by the general public. The building is currently under refurbishment and is yet to be opened. The space is accessed longitudinally in the form of long-term tenants, predominantly researchers. An event space can be booked for one-off usage. An option for a paid membership for a small co-working space is planned. There will be public spaces, including a restaurant, which can be accessed through drop-in: *“One group that will be occupying the house permanently. Then there will be this open space for everybody . . . Helsinki citizens, basically, that offers a café and events” (Nest\_N6).* The temporality of the organisation is evident in case Nest. The concept of the space and the organisation are seen as evolving over time: *“It’s also an interesting way to build a concept, to kind of build a plane while you’re flying it” (Nest\_N6).*

The sharing of space is mostly with prosocial motivations, which is also the organisational brand. There is emphasis on collaboration, informal encounters and synergies: *“It’s a place for dialog, people to understand each other’s realities, different realities. That’s like the upper idea, but completely it’s a place for different organizations, researchers to create synergies from working in the same building. And also, opportunity to create events to make other people also to make each other and understand each other’s realities” (Nest\_N1).*

The location in an affluent neighbourhood can create a sense of inaccessibility. It is relatively easy to get to the site using public transport or bicycle: *“And you have to probably take a tram and . . . or yeah. Well, cycling is probably okay, but then, again, will that . . . limit the people who come in, because they can’t just pop in” (Nest\_N7).* However, the location of the site is not considered of large importance by the informants, although the setting in a park near the waterfront is admired. The building itself and its cultural heritage is deemed of higher importance than the location itself. The organisation is a non-profit foundation, which is planning to bring in some revenue through the renting of office space. However, the rental



income will not be enough to cover the costs of renovation and operation: *“We are not going to get any money from this business”* (Nest\_N1). There will be a full-time facilitator working in the building who will coordinate events and in-house activities, run the office, strengthen the theme, manage and grow the community, come up with joint ventures, pilots and new programmes, etc. Content is an important feature and is seen as the added value of the space: *“It’s more than a basic coworking place which already has fascinating things, community building and values, of course there—but when it’s the content value and the coworking value, then it’s upgraded value”* (Nest\_N5).

The organisation has a strong online presence, which is to be maintained once the building is opened. It is not necessarily the same community that will utilise the building; however, there will likely be some cross-over: *“I do think the online community will stay strong, even after we open the space”* (Nest\_N6). The online community has a wider national and international focus, whilst the building is more local. The main draw of the space and organisation is the vibe and tribe, with the former referring to the cultural heritage of the building and the latter referring to the people associated with the space and the organisation: *“I think you can always feel with spaces that have a history, like, you can, like, this might go into, like, sort of like an ethereal mode, kind of, but you can really, like, feel the vibes”* (Nest\_N8).

Before the current organisation, the building has been in the hands of several non-profit organisations such as museums and schools. It was a prerequisite for the sale that some spaces remain open for public use. Thus, the purchase ensured that the building, which carries with it significant cultural heritage, remains within the same segment of political consumerism and the reconfirmation of the space as antimarket. The content within the physical and virtual space has a focus on environmental sustainability. Sharing is considered a way to enable action in this area: *“This would be turned into a house for climate- or ecological-related conversations and actions”* (Nest\_N6). The adaptive reuse of the building and the use of recycled materials further enhance the sustainability factor of the space, despite aesthetics being the main driver for the sustainable choices: *“But then since we have this really general approach in our foundation for culture and social welfare and environment, we thought maybe just . . . renovating that beautiful building . . . in the park, will be just priceless in that sense”* (Nest\_N2).

Figure 6 presents Case Nest against the suggested access-based consumption framework for the spatial context.

#### 4.6. Case Station

Case Station is an office hotel located in an active railway station building in a small city. The building is a heritage listed building that has had parts converted from residential to commercial use. As part of the office hotel, there are no public spaces and the leases are long-term, although some tenants use the space infrequently. The business model and value creation are static: *“It’s pretty simple. Money in, money out”* (Station\_N1). The owner of the office hotel and the users are all for-profit organisations.

It is common to choose to use the space due to prosocial motivations; however, the social motivation mostly revolves around not being alone as opposed to collaboration and community: *“You have this [ . . . ] relationship like you are colleagues. It’s often customer-provider relationship [in my job]. But here it’s more like you are part of a business, almost. Everyone is in the same situation here. You are self-employed, and you can talk about that”* (Station\_N3).

Location is considered the main feature of this space. It is close to peoples’ homes and at the same time close to transportation links: *“It’s very close, I live a bit further away in an apartment. And then I have work here, and work out a bit further down. So, it’s like, your whole life is some sort of passageway. So, it is very convenient”* (Station\_N3); *“It’s really the proximity which is the main reason I would say [ . . . ] also, it’s a good location, because I think, because it’s a train station”* (Station\_N4). There is no online presence and the reason for usage is mostly functional with minor social motivations. The cultural heritage of the building has minor or no impact on the choice of location for the users: *“You don’t have to sit at home, but you*

*still have that feeling. There are not too many sitting here, so you have a little contact with each other, just enough. And you can close your door if you want to . . . focus. But otherwise, it's just someone to say good morning to" (Station\_N1).*

Apart from the use of kitchen appliances, such as a kettle, disposables, such as toilet paper and soap, and cleaning of the communal areas there are no services: *"It's very basic and, well, I have no problems with it" (Station\_N4).* There are no political motivations in terms of antimarket or environmental sustainability present with the owner or the users: *"It's not a strategy from me in that way. But I do think it's an important issue in general" (Station\_N1).*

Figure 7 presents Case Station against the suggested access-based consumption framework for the spatial context.

#### 4.7. Case Unicorn

Case Unicorn is a co-working incubator with their focus on social impact entrepreneurs and start-ups. The space is located in a repurposed tram station in the centre of a city with easy access to public transport. The co-working space itself is membership based with flexible seating but also contains private offices for the companies that have grown and need their own space. The café can be used for drop-in and is open to the public. The events that are held at the facility can also be one-off usage. The intention is for longer- or medium-term memberships and office leases, until an organisation is large enough to move to their own premises.

The business model is somewhat static; however, there are parts that are evolving and a work-in-progress. The sharing of space is mostly with prosocial motivations, and that is also what the organisation brand is communicating: *"Creating a good eco-system with different members" (Unicorn\_N1).* The use of much of the space comes at a cost, although this is usually subsidised for the members who meet the requirements. The organisation being a foundation, and thus non-profit, does mean there is a larger feeling of "sharing in" than there otherwise would be. Being a non-profit organisation, which subsidises some of the memberships, it relies on partnerships from the private sector in order to break even: *"What we probably couldn't do without—or almost certainly do without—is our partnerships" (Unicorn\_N1).* The end-users are mostly for-profit, although specific to start-ups and entrepreneurs within social impact technology.

The organisation, through its employees acting as facilitators, hosts some of the events, provides coffee and refreshments, printing possibilities, facilitates discussions, matchmaking and inspiration: *"Every month the house acts as a venue for a lot of events. Some of them we host ourselves" (Unicorn\_D1).* There is use of a local currency that can be used to, e.g., book meeting rooms. There is a sense of ownership and guardianship over the space and the equipment such as 3D printers and photo studio equipment.

The community is very much focused around the physical space; however, they do have a strong online presence on Instagram where they post professionally recorded videos. Nevertheless, there is no virtual community as such: *"I don't think it's a two-way conversation with us [ . . . ] For us the value is in those . . . creating that content and that media rather than the kind of community curation side of things and engagement in that way" (Unicorn\_N1).* An internal online messaging tool enables communication and connections among members. The organisation is selling the buzz, and the adapted building with exposed brick and lots of greenery contributes to the buzz. However, the space characteristics are not in focus: *"We sell the buzz, we don't talk about desk and chairs in the space" (Unicorn\_N1).*

The content within the physical space has a social impact focus and the sharing of space is considered a way to enable action in this area: *"[Unicorn] helps entrepreneurs solve the world's greatest challenges, such as poverty, famine, environmental issues, mental health and discrimination" (Unicorn\_D2).* The positive environmental effect of sharing is secondary to it acting as a catalyst for the organisational values: *"Whilst co-working is the most efficient use of space in that you can have 100 desks serves 150 people because people aren't always using their spaces, actually other things start to become more important for teams as they get to a certain size, and what's important for us is that we want to show off how good our members are" (Unicorn\_N1).*

Figure 8 presents Case Unicorn against the suggested access-based consumption framework for the spatial context.

#### 4.8. Cross-Case Analysis

This sub-section presents the findings of the cross-case analysis. Figure 9 first provides a visual representation of all cases against the dimensions of access-based consumption, after which each dimension is briefly analysed across all cases.

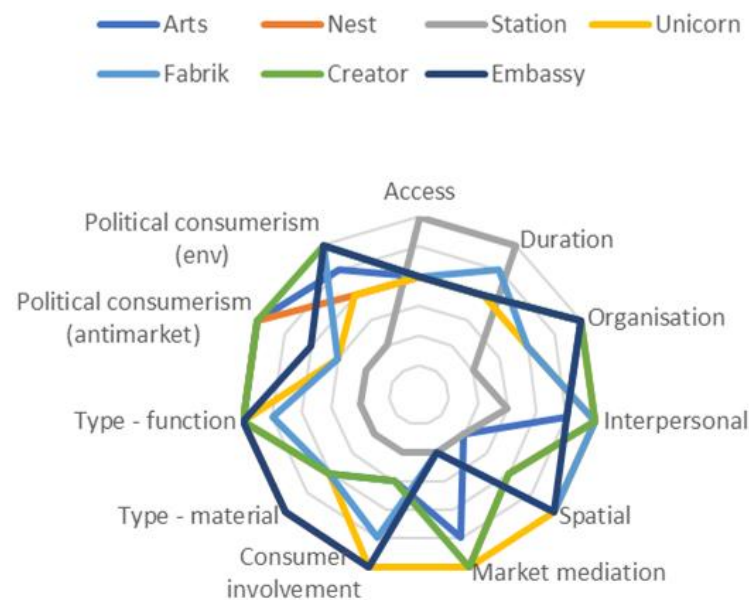


Figure 9. The cases against the access-based consumption dimensions.

*Temporality (access).* A combination of the different ends of the dimension is the most common with all but one case (Station) offering the possibility of drop-in uses in at least some areas of their spaces; however, longitudinal use is more common in all cases. Drop-in uses are most prominent in those spaces that incorporate a café or other similar establishment, with the actual workspaces being more longitudinal in access.

*Temporality (duration).* As with access, a mix of duration is most common, apart from the case of Station, which is solely based on long-term leases. It is more typical to offer both longer-term memberships and short-term options (Arts, Creator, Embassy, Fabrik and Nest). Unicorn only has membership options for their co-working space and smaller offices for growing start-ups. However, the intent is for people to stay medium to long term, until their company grows enough to require their own larger offices. Creator and Fabrik tend to have longer leases with a head tenant who then sublets with leases of varying lengths and flexibility, usually as co-working and sharing options to their own offices.

*Temporality (organisation).* A new sub-dimension that clearly emerged from the data was the fluid, unfinished nature of most of the cases. Only one concept, Station, could be considered fully static. At Unicorn and Fabrik, some parts are evolving, but the majority of the business is static. At Arts, Creator, Embassy and Nest the organisations are evolving and are intended to keep evolving.

*Anonymity (interpersonal).* Prosocial motivations were present in all cases: strong in five (Creator, Embassy, Fabrik, Nest and Unicorn), semi-strong in one (Arts) and semi-weak in one (Station). In some cases (Arts, Creator, Fabrik, Nest and Unicorn) the space may be a larger part of the draw than the community; however, the space can be seen to add to the feeling of the place and the experiences to be had there. Even though for Station the location is the main attraction to use the space, the community feel was important there too. None of our shared spaces could be described as a complete society of strangers. In the cases, the element of cost or profit does not indicate it cannot be true sharing, however the availability of free to use public spaces does affect the political consumerism (antimarket) dimension.

*Anonymity (spatial).* Spatial access was an important feature for all cases, although in different ways. Two cases (Station and Arts) are considered satellite locations as they are close to the users' homes and thus conveniently located for the end-users, although case Arts does have users who travel nationally and internationally to visit. Nest and Creator are situated somewhat on the outskirts of a central location. Three cases (Embassy, Fabrik, and Unicorn) are located centrally in areas of importance to their organisation. Fabrik is in an area that is prominent in the cultural sector, and Embassy in an area designated for sustainability and the surrounding areas being of lower socioeconomic status. Unicorn is located within a central business district. For three cases (Arts, Creator and Nest), the location is determined by the previous uses of the sites; which has turned out to be significant. Arts and Creator have contributed positively to revitalizing the local community. For Nest the beautiful location is likely to draw in people.

*Market mediation.* Our case selection includes a mix of profit and non-profit organisations. The business models vary between the cases. Station is a standard for-profit organisation with revenues from long-term leases. Fabrik and Embassy are for-profit organisations that deliver other types of leases and memberships as well as long-term leases. Nest is run by a non-profit foundation with secured funding behind it and are offering co-working space for free for sustainability researchers, as well as longer-term leases with market rents. Nest has a goal to break even; however, this is not necessary for its survival, and it can, thus, run a deficit in order to reach the organisational goals. Unicorn, also a non-profit foundation, offers a membership discount for social impact entrepreneurs and relies on private partnerships in order to break even. Arts is a limited-profit organisation financed through a crowdfunding campaign, and it relies heavily on public sector subsidies. Some cases (Arts, Creator, Embassy, Nest and Unicorn) host restaurant services and/or organise events and guided tours that can bring in revenue. Nest, Embassy and Fabrik include spaces that can be utilised by the general public at no cost. Surprisingly, this is not the case at Creator despite the strong anti-consumerism traits.

*Consumer involvement.* Three of the cases (Embassy, Nest and Unicorn) provide a facilitator service. The main task is to create content and collaboration. Three cases (Arts, Creator and Fabrik) have something similar to a facilitator, although, in the case of Arts, the role is more focused on facilitation of services rather than community building, and for Fabrik, it is focused on the community building rather than services. At case Creator the café operators create events and offer activities for tenants and for the general public. At Arts and Fabrik, where the role of the facilitator is less prominent, the tenants are responsible for organising much of the collaboration and content. At Station there is no facilitator or content present. Cases Arts and Creator exhibit a very grassroots way of doing things and a do-it-yourself attitude is prominent throughout the organisation. On the other hand, even though case Unicorn offers a range of services, there is still a strong sense of ownership and responsibility for the space. Case Station is very much self-service with the users even purchasing their own coffee beans to bring to the break room. The services that are provided vary between all cases, e.g., Unicorn provide specialist equipment (e.g., green screen) at no cost, whilst Arts provide supplies and specialist equipment (e.g., furnaces) at a cost.

*Type of accessed space.* All cases, due to the nature of the study, include a physical object, space, as the accessed object. However, two cases (Embassy and Nest) have strong online presences and have to date only existed as a virtual space for the end-users. Both cases will have strong content focus in the physical space as well as online, and some of the online community it is thought will cross-over to the physical, but far from all. This enables the content to be delivered to a wider audience without expanding the physical space. There is also a strong sense of community despite it only being online to date. Station has no online presence at all. The remaining cases do have an online presence, but typically not a two-way conversation (Arts, Fabrik, Creator and Unicorn).

*Function of accessed space.* The motivation for using a space is in most cases experiential (Arts, Creator, Embassy, Fabrik, Nest and Unicorn). Both the sharing experience and the

physical site itself contributes to the vibe or buzz. The vibe is often the sought experience in these cases, where experience design was presented as just as important as the physical space. The cases in this study have a larger emphasis on the vibe and buzz rather than the physical space when it comes to promoting the organisations' concepts. The motivation, as well as promotion, for using a space is only mostly functional for case Station. The experiential aspect at Station relates only to the community experience, and not a combination of community and content, which can be seen in the other cases.

*Political consumerism (antimarket).* Based on our findings, it seemed relevant to separate two kinds of political consumerism: one focused on anti-commercialism, and one on sustainability issues. Three of the cases (Arts, Creator and Nest) are reappropriating sites from private or commercial use. Case Nest is committed to have an event space open to the general public. It is interesting that cases Arts and Creator have strong anti-consumerism and sustainability values, yet they lack spaces open without a cost to the general public. Interestingly, two of the for-profit cases (Embassy and Fabrik) will include some non-commercial spaces open to the general public, such as courtyards, parks, co-working and a city library. Station is the only case that exhibits no traits of antimarket in its business model and is purely filling a market gap.

*Political consumerism (sustainability).* Two cases signal sharing as environmentally sustainable (Embassy and Fabrik) and also engage in other sustainability actions, such as reuse and recycled materials. Three cases (Creator, Nest and Unicorn) have sustainability as their core organisational values; however, they do not signal shared spaces as environmentally sustainable as such. All our cases apart from Embassy are located in adapted and reused existing sites. Notwithstanding this, only three cases signal adaptive reuse as environmentally sustainable (Arts, Creator and Fabrik). Case Station is non-political, also in the environmental sustainability perspective. However, even this case is environmentally sustainable as a result of space efficiency from shared spaces, and, e.g., CO<sub>2</sub> savings from adaptive reuse. Whilst the cases have different goals, approaches and practices related to sustainability, the outcomes are not that different, with all of the cases delivering environmental sustainability.

## 5. Discussion

This study set out to establish an access-based consumption framework in the spatial context. We found that for the access-based framework to accurately conceptualise shared spaces, a new sub-dimension should be included: temporality in terms of the organisation. Furthermore, we suggest dividing political consumerism related to decommercialization (antimarket sentiments) and sustainability (environmental ideals). We also suggest renaming the extremes associated with the dimensions to better fit the spatial context. Table 5 introduces the suggested novel framework for access-based consumption in the spatial context.

**Table 5.** Access-based consumption in the spatial context.

<i>Drop-in space</i>	<b>Temporality (access)</b>	<i>Membership or lease usage</i>
<i>Flexible and short lease</i>	<b>Temporality (duration)</b>	<i>Long lease</i>
<i>Fixed</i>	<b>Temporality (organisation)</b>	<i>Fluid</i>
<i>Serial sharing</i>	<b>Anonymity (interpersonal)</b>	<i>Community and collaboration</i>
<i>Satellite location</i>	<b>Anonymity (spatial)</b>	<i>Central location</i>
<i>Profit business model</i>	<b>Market mediation</b>	<i>Non-profit business model</i>
<i>Self-serviced space</i>	<b>Consumer involvement</b>	<i>Serviced space</i>
<i>Physical space</i>	<b>Type of accessed object (material)</b>	<i>Virtual or hybrid space</i>
<i>Functional space</i>	<b>Type of accessed object (function)</b>	<i>Experiential space</i>
<i>Commercial space</i>	<b>Political consumerism (antimarket)</b>	<i>Decommercialized space</i>
<i>No sustainability motivations</i>	<b>Political consumerism (sustainability)</b>	<i>Signalling sharing as sustainable</i>

The emergence of the temporality of the organisation dimension indicates that, shared space concepts are almost inherently fluid. Some of the dynamics were created through hybrid solutions in terms of physical space and a virtual community. The strong virtual presence can be thought to enable the fluidness of the organisation and enable it to be more dynamic and innovative as suggested by Gressgård [48]. As an example, the cases of Nest and Unicorn are similar in many of the dimensions, yet the hybrid solution at Nest might allow it to have a less central spatial context, and might also allow the organisation to be more dynamic.

The hybrid solutions make it evident that the connection and collaboration can be present in the virtual space, which supports the notion that camaraderie found in physical spaces also can be found online [26]. It is intriguing that, even in the spatial context, the physical space is not a prerequisite for a community. On the other hand, it seems impossible for a shared space to show extreme anonymity in the same way as, e.g., carsharing or the sharing of holiday homes. In other words, a joint space shared at the same time cannot be a complete society of strangers. The closest to a “society of strangers” in the context of shared spaces would be if the sharing was taking place at different times, i.e., serial sharing [10,33]. However, this study included no cases of such sharing.

It seems to be typical for shared spaces to offer both drop-in use and longitudinal usage as well as short- and long-term leases or memberships. Only one case offered only longer-term leases. The other cases had a combination of activities and types of spaces, some of which were better suited for one-time visits, such as cafés and restaurants. The presence of a café has previously been found essential in the co-working context by, e.g., [32,37].

According to Belk [26], whether a shared space is considered true sharing will depend on whether the inclusion of cost is adhered to when categorising. All cases have cost attributed to most of their spaces, regardless of the market mediation dimension. If the notion of cost was a defining factor for the level of true sharing (e.g., [2,25,26]), all our cases would be considered sharing/pseudo-sharing hybrids. However, non-profit organisations would be closer to true sharing than those for-profit. Should cost not be considered a hindrance for true sharing (e.g., [3,28,29]), the for-profit cases classified as hybrids (Fabrik and Embassy) would instead be classified as “sharing in” due to their prosocial motivations. We found that cases exhibited high levels of prosocial motivations at the same time as having a cost, and even profit, attached to it. Thus, we propose classifying the sharing of space as access-based, as suggested by Eckhardt and Bardhi [2], which provides a more accurate description as this removes the issue of cost from the sharing phenomenon.

The combination of the aesthetic attributes of the space and the content delivered an experiential space for all the cases apart from case Station, in line with the findings from Schorch [49]. The often-stated presence of a particular “vibe” in the spaces, aligns with the findings of Gillen and Cheshire [48]. The aesthetic of a space may be a larger part of the draw than the community in some instances; however, the space can be seen to add to the feeling of the place and the experiences to be had there, in a similar way as described by Schorch [49]. The combination of the vibe (aesthetics) and the tribe (community) were in most cases the main reason for using a shared space.

A community facilitator role was the most prominent service provided. The role enabled other services, such as events, which is in line with the role as described by Orel and Almedia [42]. Not surprisingly there is a large content focus for the cases that have a facilitator. Through creating a sense of community and facilitating collaboration, the spaces conceptualise value into experience [31]. The way in which an entity that facilitates sharing is described in existing research differs. Curtis and Lehner [25] suggest that this is due to differences in goals, approaches and practices. These often relate to the ideologies and organisational values [50]. Bardhi and Eckhardt [2] suggest self-sufficiency encourages the feeling of commitment and identification with the shared object, and Kyrö and Arto [37] suggest the same for an on campus co-working space. However, we found no evidence of differences in terms of serviced spaces creating less of a feeling of identity and commitment to the shared object.

One of the cases stood out when compared to the others. A for-profit organisation was situated on the opposite side of the scale of many of the dimensions. Meanwhile, other cases that are also for-profit, have high levels of political consumerism and are more similar to the non-profit organisations in terms of the other framework dimensions. There is a wide spread of antimarket sentiments in the cases that could be explained by a difference in ideologies and organisational values [50]. We suspect that instead of the market mediation, it is the level of political consumerism that might drive the intent for the other dimensions. Curtis and Lehner [25] suggest the goals of an organisation, which in turn are connected to the ideologies and values [50], are the reason for sharing organisations being described differently. Our findings support this idea.

Lastly, we found that the environmental sustainability aspect, through space efficiency, reuse and use of recycled materials, was mostly unintentional. Rather than environmentally sustainable as such, sharing was seen as a way to enable organisational values. Notwithstanding this, all cases exhibit a high level of environmental sustainability, including the one case that was entirely non-political. There was also a high level of social sustainability in most cases through the conservation of cultural heritage.

It should be noted that even though we are building on a framework from consumer research, our perspective is not that of a consumer, which in the spatial context would be the end-user of space. Rather, different stakeholders (end-users, but also owners, service providers, public officials) get to voice their views on how access-based consumption is organised in the spatial context. The focus is on the shared space itself.

The dimensions in the framework are neutral, and several of the cases fall on different places on the dimensions without affecting the value of the findings. In other words, the findings would have been of equal value if we found that access-based solutions in the spatial context are non-political, or that all solutions were short-term only. The presence of several authors at the interviews, as well the collaborative analysis and writing process further contribute to the objectivity of the findings. We also consider the dependability of the findings to be high because of detailed documentation of the research process and prudent data management practices.

The transferability of our findings has limitations, as we purposely sought extreme cases in order to gain rich data and examples. Moreover, transferability to other contexts is not the aim as we wish to contribute with new knowledge on access-based solutions in the spatial context specifically. Our case studies are from three different countries and different types of localities (small town, suburban, urban neighbourhood, central business district). This leads us to believe that our findings would apply in the spatial context in other geographical locations as well.

## 6. Conclusions

We suggest the access-based framework in the spatial context to include the following dimensions and sub-dimensions: (1) temporality (access); (2) temporality (duration); (3) temporality (organisation); (4) anonymity (interpersonal); (5) anonymity (spatial); (6) market mediation; (7) consumer involvement; (8) type of accessed space; (9) function of accessed space; (10) political consumerism (antimarket); (11) political consumerism (sustainability). This adapted framework should capture the nuances typical of shared spaces.

Future research could focus on how the physical object of sharing, even in the case of shared spaces, is being partially replaced with virtual and hybrid solutions. A hybrid solution also seems to enable the organisations delivering shared spaces to be more dynamic. Furthermore, the ideology of the organisation, particularly the political consumerism dimensions, seem to have an impact on the other dimensions, which should be researched further.

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## Appendix A

A full list of interviews, informants and other quoted documents with their respective anonymisation codes is presented in Tables A1 and A2.

**Table A1.** List of interviews and informants.

Code	Date	Duration	Language	Role	Type 1	Type 2
<b>Case Nest</b>						
<i>Nest_N1</i>	26 March 2021	62 min	English	End-user, concept creation	Virtual	Single
<i>Nest_N2</i>	29 March 2021	55 min	English	Owner–Developer	Virtual	Single
<i>Nest_N3</i>	28 April 2021	74 min	Finnish	Developer’s consultant—construction	Virtual	Single
<i>Nest_N4</i>	28 April 2021	61 min	Finnish	Developer’s consultant—design	Virtual	Single
<i>Nest_N5</i>	12 May 2021	65 min	English	Developer’s consultant—content	Virtual	Single
<i>Nest_N6</i>	19 May 2021	39 min	English	Service provider	Virtual	Single
<i>Nest_N7</i>	23 June 2021	54 min	English	End-user	Virtual	Single
<i>Nest_N8</i>	30 September 2021	36 min	English	Service provider	Virtual	Single
<i>Nest_N9</i>	07 October 2021	42 min	English	Public official	Virtual	Single
<b>Case Station</b>						
<i>Station_N1</i>	15 April 2021	26 min	Swedish	Service provider	Virtual	Single
<i>Station_N2</i>	16 June 2021	44 min	Swedish	Owner	Virtual	Single
<i>Station_N3</i>	28 September 2021	46 min	Swedish	End-user	Physical	Single
<i>Station_N4</i>	30 September 2021	24 min	Swedish	End-user	Physical	Single



Table A1. Cont.

Code	Date	Duration	Language	Role	Type 1	Type 2
<b>Case Arts</b>						
<i>Arts_N1</i>	29 April 2021	25 min	English	End-user	Virtual	Single
<i>Arts_N2</i>	29 April 2021	5 min	Swedish	End-user	Physical	Group
<i>Arts_N3</i>	29 April 2021	See N2	Swedish	End-user	Physical	Group
<i>Arts_N4</i>	29 April 2021	12 min	English	End-user	Physical	Single
<i>Arts_N5</i>	29 April 2021	13 min	Swedish	End-user	Physical	Single
<i>Arts_N6</i>	29 April 2021	45 min	English	Owner, service provider	Physical	Single
<i>Arts_N7</i>	29 April 2021	10 min	English	Service provider	Physical	Single
<i>Arts_N8</i>	29 April 2021	49 min	Swedish	Public official	Physical	Group
<i>Arts_N9</i>	29 April 2021	See N8	Swedish	Public official	Physical	Group
<i>Arts_N10</i>	10 June 2021	33 min	Swedish	Public official	Virtual	Single
<i>Arts_N11</i>	09 August 2021	21 min	Swedish	Public official	Virtual	Single
<b>Case Creator</b>						
<i>Creator_N1</i>	25 March 2021	59 min	English	End-user, service provider	Physical	Single
<b>Case Unicorn</b>						
<i>Unicorn_N1</i>	18 May 2021	27 min	English	End-user, Service provider	Virtual	Single
<b>Case Fabrik</b>						
<i>Fabrik_N1</i>	22 October 2021	9 min	Swedish	Developer's consultant—sustainability	Physical	Single
<i>Fabrik_N2</i>	22 October 2021	32 min	Swedish	Developer's consultant—construction	Physical	Group
<i>Fabrik_N3</i>	22 October 2021	See N2 and N4	Swedish	Owner–Developer	Physical	Group
<i>Fabrik_N4</i>	22 October 2021	31 min	Swedish	End-user	Physical	Group
<i>Fabrik_N5</i>	22 October 2021	See N4	Swedish	Developer's consultant—construction	Physical	Group
<b>Case Embassy</b>						
<i>Embassy_N1</i>	20 May 2021	47 min	Swedish	Owner–Developer	Virtual	Single
<i>Embassy_N2</i>	02 June 2021	63 min	Swedish	Owner–Developer	Virtual	Single
<i>Embassy_N3</i>	04 June 2021	32 min	English	Service provider	Virtual	Single
<i>Embassy_N4</i>	08 June 2021	26 min	Swedish	Owner–Developer	Virtual	Single

Table A2. List of quoted documents.

Code	Case	Type of Document	Language	Pages
<i>Arts_D2</i>	Arts	Subsidy decision (Region)	Swedish	3
<i>Fabrik_D3</i>	Fabrik	Lease appendix	Swedish	2
<i>Unicorn_D1</i>	Unicorn	Webpage	English	N/A
<i>Unicorn_D2</i>	Unicorn	Organisation blueprint	English	10
<i>Creator_D1</i>	Creator	Webpage	English	N/A
<i>Creator_D2</i>	Creator	Webpage	Dutch	N/A

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