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Citation for published version:

Saldivar X, Davis A, Wagner B, Valor C (2026;), "Rethinking the quadruple helix in place-based innovation: power, space and public experience". *Journal of Place Management and Development*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/JPMD-01-2026-0013>

Citing this paper

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and Development, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/JPMD-01-2026-0013>

The final version must be consulted at the journal

Abstract

Purpose: The paper explores how stakeholder governance dynamics shape public experiences in innovation district spaces. It addresses a gap in the public lifeworld by interrogating the quadruple helix model of innovation and its spatial consequences.

Design/methodology/approach: Qualitative interviews with community council representatives and residents in two Glasgow innovation districts were analysed thematically through the lens of social space theory.

Findings: From the public's perspective, innovation districts are governed unequally. This reinforces the production of districts as territorial enclaves and as spaces of urban colonisation, privileging institutional interests and capitalist logics while marginalising existing communities.

Originality/value: The study provides a public-centred critique of the quadruple helix model of innovation, linking power dynamics to lived spatial experiences. It conceptualises innovation districts as territorial enclaves and as colonial landscapes. Ultimately, it calls for more meaningful public inclusion to confront enduring urban divisions.

Keywords: innovation districts, social space, urban colonisation, capitalism, public experience

Paper type: research paper

1 Introduction

The emergence of innovation districts can be attributed to societies' pursuit of global economic competitiveness and inclusive growth opportunities (Yigitcanlar, Adu-McVie and Erol, 2020). Innovation districts are geographical areas composed of clustered live-work-play settings that aim to enhance entrepreneurial endeavours and regenerate existing environments (Webster, Thuriaux-Aleman and Khoury, 2021). Economically, innovation districts have been successful in achieving their purpose, with many cities adopting this model to foster urban rejuvenation (Bottero *et al.*, 2020). Yet despite these efforts, districts continue to grapple with their civic agenda of nurturing genuine social integration with the local place (Heaphy and Wiig, 2020; Fastenrath *et al.*, 2023). A closer examination of their key actors reveals that the public is typically first to experience the adverse effects of these spaces (Zandiatashbar and Kayanan, 2020; Kayanan, Drucker and Renski, 2022). This suggests power imbalances among stakeholders, although the nature of these disparities remains understudied due to limited research on public perspectives (Kneale *et al.*, 2024).

Innovation district governance is commonly conceptualised through the quadruple helix model of innovation (Carayannis and Campbell, 2009), which frames districts as collaborative arrangements among government, academia, industry, and the public. While the model underscores the importance of multi-stakeholder interaction, it largely assumes parity among actors and offers little insight into how power is exercised in practice (Wolf-Powers, 2022; Mulgan, Williams and McGee, 2024). Consequently, it provides a limited explanation for how stakeholder dominance emerges or how these relations shape everyday lived experiences within innovation district spaces.

To address this gap, this paper adopts social space theory (Lefebvre, 1991) as a critical lens to examine how governance arrangements materialise in space and affect public experience. As place-based initiatives, innovation districts may be understood as socially produced spaces that reflect and reproduce dominant ideologies and power relations (Massey, 2005; Harvey, 2012). Accordingly, this paper examines how the governance of innovation districts, as manifested in stakeholder relations, shapes the public's experiences within innovation district spaces. It seeks to (1) uncover the power relations and struggles underpinning these environments and (2) explain why such tensions persist. In doing so, the paper foregrounds the public lifeworld, mapping sites of negotiation and contestation to deepen understanding of how innovation districts might cultivate more meaningful social integration within their broader place contexts.

2 Literature Review

2.1 Collaborative partnerships: stakeholders in urban regeneration

Innovation districts have largely adopted the quadruple helix model of innovation (Carayannis and Campbell, 2009), a governance approach that emphasises the strategic relations of government, academia, industry, and the public in the running and development of these areas. While the model outlines stakeholder roles, it offers limited insight into how these alliances form and overlooks power dynamics among key players (Wolf-Powers, 2022; Kneale *et al.*, 2024). For this reason, the framework does not allow for understanding of how stakeholders are positioned relative to one another or which stakeholders' influence becomes more prominent in the management of innovation districts.

In practice, innovation district governance rarely reflects the parity implied by this model. Innovation districts are speculated to function similarly to smart or sustainable city initiatives, albeit in a more concentrated capacity (Heaphy and Wiig, 2020). From this perspective, governmental bodies are invariably involved through their policy and planning authority (Katz and Wagner, 2014). Universities function as stable, place-based institutions that generate research, employment, and human capital, while firms and knowledge workers are viewed as catalysts for urban regeneration and competitiveness (Taecharungroj, 2016; Pancholi, Yigitcanlar and Guaralda, 2019). Hence, these functions underscore the key influence of these players in moulding these spaces (Kayanan, Drucker and Renski, 2022). This is further echoed in the literature examining these stakeholders' responsibilities (Pancholi *et al.*, 2020; Bisani, Daye and Mortimer, 2022) and their subsequent role over the strategic direction and spatial design of innovation districts (Florida, 2014; Taecharungroj and Millington, 2023).

In contrast, past work shows that the public is consistently positioned as a subordinate stakeholder (Kayanan, Drucker and Renski, 2022). Despite being characterised as co-users of innovation and activators of district life (Carayannis *et al.*, 2018), research indicates that public involvement is negligible in the pre-production phases of innovation districts (Duarte and Sabate, 2013; Esmaeilpoorarabi and Yigitcanlar, 2023). As a result, the changes brought by these spaces frequently conflict with local interests such as rising property values and displacement pressures (Morisson and Bevilacqua, 2019; Zandiatashbar and Kayanan, 2020). While innovation districts are commonly justified on the grounds that economic growth will eventually trickle down to surrounding communities (Katz and Wagner, 2014), empirical evidence supporting this assumption remains limited. Although districts may generate employment opportunities, highly skilled roles are often not attainable for locals, as studies show that most are offered jobs as service workers (as opposed to knowledge workers) within

these spaces (Kayanan, Drucker and Renski, 2022). Furthermore, characterisations of communities as populators or end-users (Carayannis *et al.*, 2018) suggest that their presence is incidental rather than integral within district spaces.

Innovation district governance thus appears to operate through a hierarchical configuration in which government, academia, and industry form a technocratic alliance, while the public occupies a peripheral position. Yet, it still does not fully explain why these relations endure. Innovation district research has mainly focused on these technocratic collaborators while neglecting to explore the public lifeworld (Kneale *et al.*, 2024), with studies limited to measuring perceptions (Esmaeilpoorarabi *et al.*, 2020a; Esmaeilpoorarabi *et al.*, 2020b), their spatial usage (Gao and Lim, 2023), or how residents are ultimately affected by these developments (Bevilacqua, Pizzimenti and Maione, 2017; Zandiatashbar and Kayanan, 2020). Hence, examining public experiences may help understand why these exclusionary patterns prevail and how power is enforced, rejected, or negotiated in these spaces. To structure this approach, social space theory is used as a theoretical lens, as explained next.

2.2 Social space and the new geographies of (un)even development

Social space theory conceptualises space as a social product shaped by ideology, power, and struggle rather than as a neutral container for economic activity (Lefebvre, 1991). According to this perspective, space is continuously produced through interactions between dominant institutions and everyday practices, resulting in environments that both reflect and reinforce existing social relations. Lefebvre's framework foregrounds the socio-spatial dialectic, emphasising how space is conceived by planners and institutions, perceived through material and symbolic forms, and lived through everyday experiences (Soja, 1996).

In contemporary urban contexts, the production of space is deeply embedded within capitalist systems (Harvey, 2012). Innovation districts emerged as part of a broader history of capitalist urbanisation that reorganises space to facilitate accumulation, investment, and competitiveness (Kayanan, 2019). Thus, innovation districts can be understood as iterations of older urban strategies that prioritise economic productivity and value extraction through concentrated, mixed-use development (Charnock and Ribera-Fumaz, 2011).

This is reinforced by the conception of innovation districts as locales that encourage commercial expansion (Katz and Wagner, 2014). As geographical developments, districts require the accumulation and control of land, enabling planners to determine the spatial organisation, aesthetic character, and permissible uses of space (Elden, 2013; Kayanan, 2019). This territorialisation underscores the conversion of space into income-generating

landscapes, in which workspaces, housing, and leisure amenities are designed to attract investment and mobile capital (Florida, 2014; Rolnik, Amadeo and Rizzini Ansari, 2022). Through global replication, innovation districts increasingly resemble abstract spaces, characterised by standardised design, branding, and functionality, often detached from local histories and social contexts (Joss *et al.*, 2019).

This concentrated development strategy yields two prevailing perceptions. On one hand, innovation districts are frequently celebrated for accelerating urban regeneration, revitalising underused areas, and supporting new forms of economic activity (Webster, Thuriaux-Aleman and Khoury, 2021). On the other hand, their territorial character has been criticised for intensifying socio-spatial inequalities, driving gentrification, and fostering exclusionary environments (Kneale *et al.*, 2024; Mulgan, Williams and McGee, 2024). Hence, while districts promote openness, this does not necessarily ensure access for existing communities. These tensions are further reflected through everyday lived struggles, as spatial control allows certain stakeholders to privilege their interests while marginalising others (Lefebvre, 1991). Innovation districts, much like smart cities and regeneration initiatives, often operate through top-down governance structures that treat citizens as consumers rather than active agents capable of shaping urban outcomes (Cardullo and Kitchin, 2019). This dynamic produces feelings of powerlessness among residents, who frequently perceive decisions as predetermined and consultation processes as tokenistic (Rijshouwer, Leclercq and van Zoonen, 2022).

Nevertheless, marginalisation does not imply total subjugation. While residents may wield less power, they retain the capacity to resist, contest, or disengage from these spaces through both overt and everyday practices (Soja, 1996). For instance, during the construction of 22@Barcelona, locals organised and protested against the demolition of heritage sites, ultimately leading to their preservation (Duarte and Sabate, 2013). Moreover, districts often lack vibrancy due to public reluctance to fully embrace these developments (Yigitcanlar *et al.*, 2024). In this sense, public experience becomes a critical site through which the limits and contradictions of innovation district governance are expressed.

Applying the lens of social space theory, it is argued that power dynamics are at play within innovation districts. Beyond exploring how these relations manifest through these spaces, it is crucial to examine how the interplay of power and governance structures enables or delimits community empowerment and negotiation. Therefore, interrogating these mechanisms is integral to deepening understanding of urban form and of why public struggles persist.

3 Method

3.1 Research design

A qualitative design is adopted as the aim of the study is to explore how stakeholder relations shape public experience within innovation district spaces. This approach investigates the public lifeworld and seeks to convey interpretive knowledge (Denzin and Lincoln, 2018). Within an interpretivist paradigm, reality is understood as socially constructed, subjective, and value-laden (Burrell and Morgan, 2017). This study reflects these positions by presenting an account of participants' realities, highlighting multiplicity and subjectivity. It is also acknowledged that researcher and participant values shape interpretations. Reflexivity and rigour throughout the research process were thus reinforced.

Homing in on this specific case, Glasgow was the chosen city for several reasons. First, it is home to the first innovation district in Scotland through the Glasgow City Innovation District (GCID, 2025). Second, while Glasgow is a relatively small area, it has two city-based innovation districts (as shown in Image 1), namely Glasgow City Innovation District (GCID) and Glasgow Riverside Innovation District (GRID) (GCID, 2025; GRID, 2025). Table 1 below provides further detail on these districts. In addition, the city is one of the fastest-growing innovation ecosystems in Europe (Glasgow City Region, 2024). Third, in contrast, Glasgow is characterised as having one of the highest concentrations of deprivation in the UK, a condition that persists today (SIMD, 2020). This showcases an interesting dichotomy between these innovation strategies and the city's past and current state. Finally, Glasgow's innovation districts draw on wider urban district models, from Spain's 22@Barcelona to Massachusetts' Kendall Square (GCID, 2025), rendering this case broadly representative.

Table 1. Profile descriptions of Glasgow's city-based innovation districts (Glasgow City Region, 2023; GCID, 2025; GRID, 2025).

	Glasgow City Innovation District (GCID)	Glasgow Riverside Innovation District (GRID)
Establishment	2019	2019
Location	Glasgow City Centre	Glasgow West End
Leadership	University-led	University-led
Partners	University of Strathclyde Glasgow City Council, Scottish Enterprise, Glasgow Chamber of Commerce	University of Glasgow Glasgow City Council, Scottish Enterprise

Key Clusters	Advanced manufacturing, space, and engineering	Health and life sciences, critical technologies, and creative industries
Global Organisations	1,600 firms, including: Pfizer, Barclays, Channel 4, Offshore Renewables Energy Catapult	700 acres of land, with businesses including: Thales UK Ltd., BAE Systems, Panthera, Chemify
Funding and Investments (<i>both districts split funds or take a share</i>)	£27.2 million UK Shared Prosperity Fund (2022-2025) £1.08 million Glasgow City Council (2024-2025) £30 million Innovation Accelerator Extension (2025-2026) £160 million Glasgow City Region Investment Zone (2025-2026) (with additional £300 million from private sector investments)	

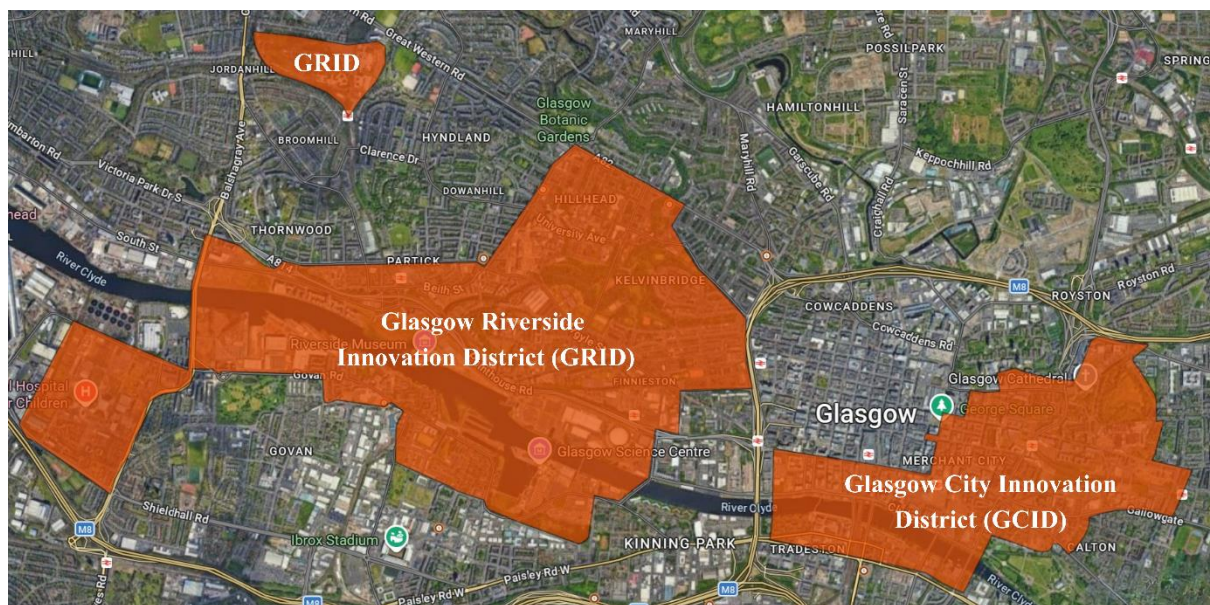


Image 1. Map of Glasgow's city innovation districts and their boundaries (Invest Glasgow, 2025).

3.2 Interview procedure

In choosing participants, a purposive sampling technique was utilised to ensure relevant insights were obtained (Campbell *et al.*, 2020). Community councils were approached as they are community-led organisations that represent the wider views of their residents and are recognised bodies that articulate neighbourhood interests (Brennan, 2023; Glasgow City Council, 2025). These groups are geographically based, with Glasgow having 92 active community councils as of May 2025 (Glasgow City Council, 2025). Further narrowing this down, the researcher focused on councils within and directly adjacent to Glasgow's innovation districts as they are likely to be more affected by these initiatives. A 1.5-mile radius was established, leading to the identification of 30 councils. The researcher then contacted these groups with a project brief and a call for participation. Interviews were

primarily held in community centres, within university premises, or online. All were audio-recorded for data analysis. To protect anonymity, professional roles are not reported. A total of 30 interviews were undertaken across 14 community councils between 15th April and 28th August 2025 (see Appendix 2: Participants list). In addition, supplementary data sources such as field notes from observations and events, documents, and reports were used to corroborate the interview findings. Triangulation was essential to strengthen the information gathered and guide data interpretation (Saunders, Lewis and Thornhill, 2023).

Semi-structured interviews were conducted with open-ended questions developed around the conceptions, perceptions, and lived aspects of space (Lefebvre, 1991) (see Appendix 1: Interview questions). The first set of questions explored public involvement in the planning of innovation districts. The second examined which district spaces felt welcoming or uninviting and why. The final set focused on how participants experienced these developments and their impact on everyday life. The interview questions were pilot-tested with several individuals to further refine and clarify them. While the questions guided the interviews, they were adapted to the flow of the conversations.

3.3 Data analysis

Interviews were transcribed and pseudo-anonymised for confidentiality purposes. This also helped the researcher familiarise and predetermine codes and possible themes. NVivo 14, an analytical software package, was utilised to categorise codes. Thematic analysis was used to assess the data, as it is a method for “interpreting patterns of meaning (‘themes’)” (Clarke and Braun, 2017, p. 297). Following the six-step thematic analysis process (Braun and Clarke, 2006) (see Appendix 3: Six-step thematic analysis process), the researcher methodically selected quotations, identified keywords, organised codes, developed themes, defined these findings in relation to the concepts employed, and finally, generated a report that reflected these interpretations. While guided by this systematic analysis, the process was by no means linear. Multiple rounds of readings and coding cycles were conducted to reinforce rigour (Byrne, 2022). Moreover, interview transcripts were independently reviewed by another researcher to enhance the credibility of the analysis. After several rounds, two main themes, namely *‘Territorial Enclaves’* and *‘Urban Colonisation’*, were uncovered, along with sub-themes drawn from recurring statements voiced by participants. The coding frame (see Figure 1) showcases how governance and stakeholder dynamics materialise in space from the public's perspective. These themes are understood as outcomes of institutional

subordination and manifestations of power asymmetries, which are further elaborated through the conceptual framework in the succeeding section.

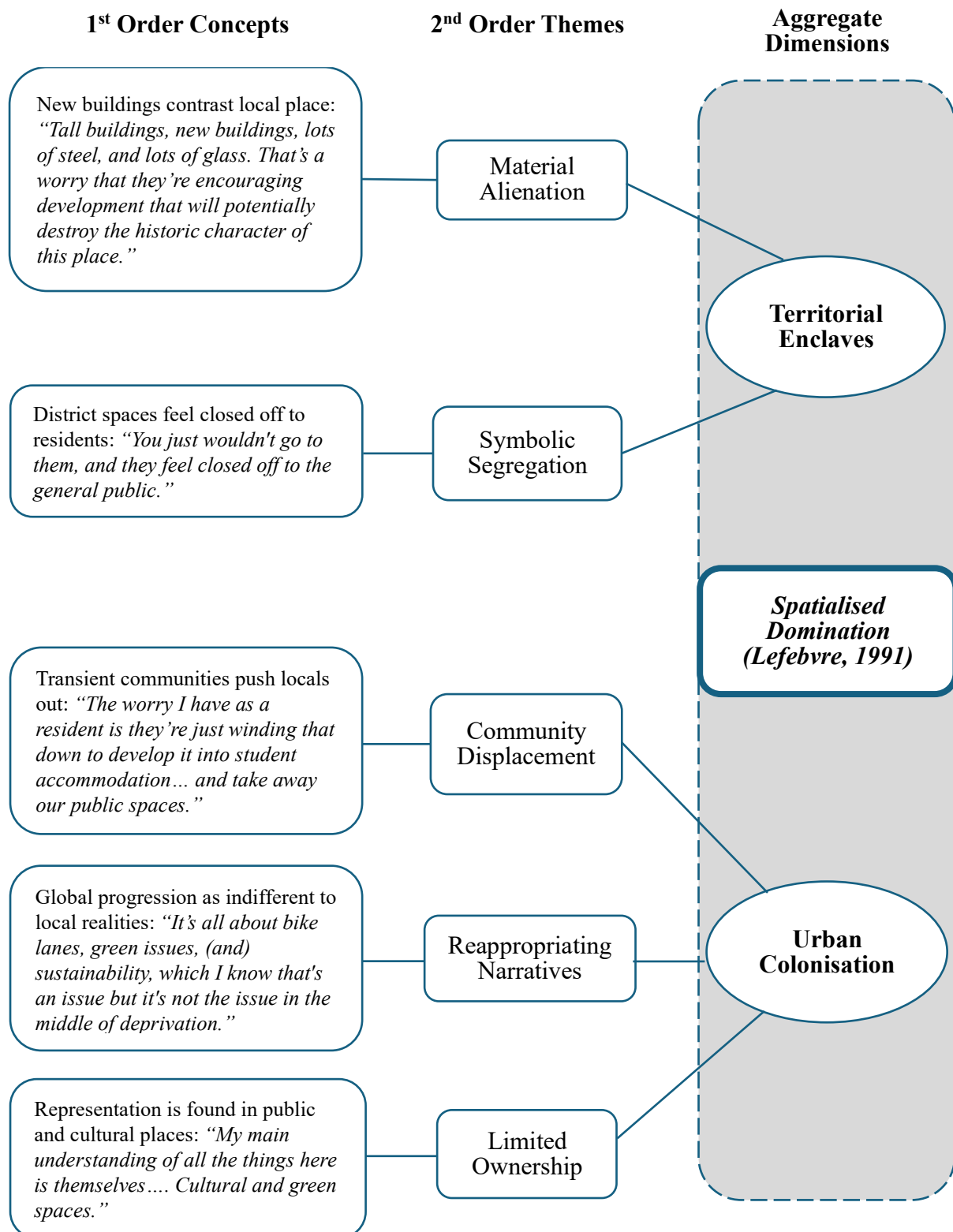


Figure 1. Coding frame illustrating negative public experience within innovation district spaces
(Source: Authors' own work).

4 Findings and Discussion

As experienced by the public, the governance model of innovation districts reveals power imbalances among stakeholders that sustain and expand a capitalist ideology. Accordingly, the Findings are organised to first foreground the alliances forged among what are seen by the public as the powerful players and then trace how these arrangements translate into spatial forms and everyday life. Guided by the critical lens of social space theory (Lefebvre, 1991), each theme mirrors the effects of these unequal collaborations, demonstrating how they crystallise into territorial enclaves and as landscapes of urban colonisation that give rise to negative public experiences (see Figure 2). While connected, these processes capture distinct modalities of power, tracing a movement from separation to incursion. Territorial enclaves describe how districts segregate and form socio-spatial silos within the city, hardening boundaries that divide public groups. Urban colonisation, in turn, cements these silos by replacing foundational communities that preceded them. In this way, marginalisation operates through the progressive effacement of what came before.

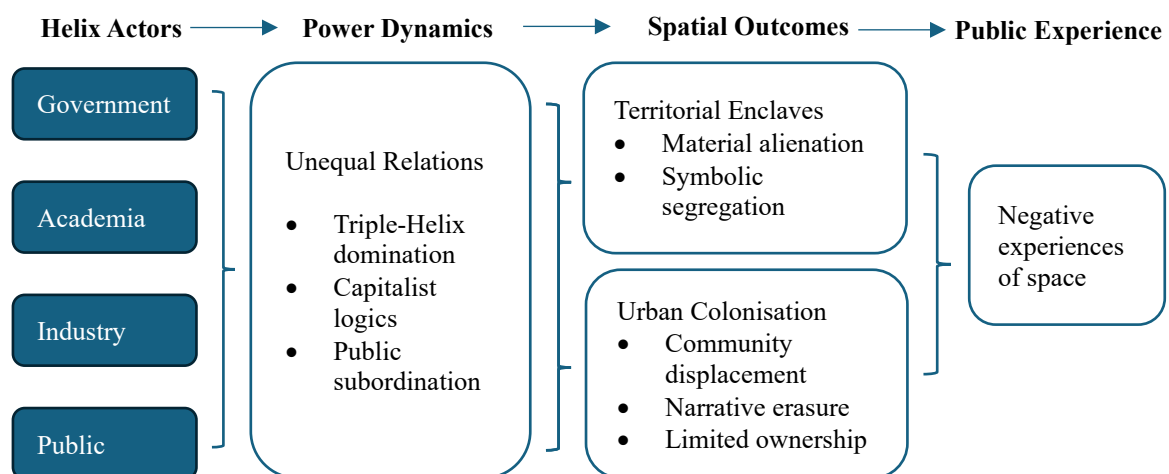


Figure 2. Conceptual framework linking stakeholder dynamics to spatial outcomes and experience
(Source: Authors' own work).

4.1 Dynamics of domination and institutional subordination

All community councils reported having had little participation in planning Glasgow's innovation districts. P9 states: *"I didn't know much of the innovation district at all."* This sentiment is mirrored by most interviewees, with many becoming aware of these initiatives

through indirect channels. As P3 reports: *“That was the first time we'd known about it (Civic Grants Fund). It came up on my email.”* For some, knowledge of districts emerged through institutional proximity rather than civic engagement. As P27 adds: *“I’ve been aware of it as a University of Glasgow employee.”* In these cases, residents only learned about these projects after completion, reinforcing the top-down approach to innovation district governance. Only one community council within GCID’s borders has been consulted, with P24 declaring: *“We’ve had regular meetings with them for the last six years.... I’m not a fan. I’m scunnered¹ with them.”* He contends that, although they had district-level interaction, their concerns were largely ignored during its creation.

This experience is prevalent among participants who perceive these initiatives as dominated by key players, while their views are either relegated or treated as tick-box exercises. P2 proclaims: *“Who is really driving it? The big players are. Academia and the Council.... They can’t include us because they haven’t included us.”* Underlying this uneven hierarchy is the view that *“the majority of these types of initiatives will always put profit above everything else”* (P14). This prioritisation of capital gain arguably marginalises local needs (Lefebvre, 1991; Clark and Wright, 2018). Referring to past developments like innovation districts, P25 expresses: *“Even though you object... it still gets past”*, underscoring that consultations often appear symbolic rather than meaningful structures that shape outcomes. Not only does this signal powerlessness among locals, but it also reinforces their peripheral role in the planning of these areas. As P27 reveals:

“There are consultation processes that happen, and that’s the legality. You then put your opinions forward and those opinions are ignored or shut down and then the main players which are the universities or the (City) Council or the developers for these big developments... they seem to have the avenue to be able to win.”

Despite this exclusion, residents assert their legitimacy as stakeholders, particularly through their role as taxpayers. P19 simply claims *“it’s our money, it’s our taxes”* whereas P26 shares: *“We’ve paid for them But I feel... an investment in Glasgow is purely business.”* Thus, residents believe they are democratically entitled to shape these spaces yet are systematically unable to exercise this right. This reflects the perspective that citizens are devalued from their role as agents who can help mould these developments (Cardullo and Kitchin, 2019). Apart from this, residents continually struggle to enforce their powers beyond consultations. Participants describe themselves as *“people who’s got the will to give their free time”* (P13) and emphasise the challenge of public mobilisation. This places them at a disadvantage

¹Scunnered is a Scottish term that refers to being fed up, annoyed, or having a strong dislike for something or someone.

compared to other district stakeholders who are often better organised and financially equipped to pursue their goals (Kalliomäki, Oinas and Salo, 2024).

These institutional dynamics validate the public's subordinate and tokenistic function within innovation district governance. While limited public participation may stem from practical constraints, it may also serve to suppress public opposition and advance capitalist-driven agendas (Clark and Wright, 2018). The minimisation of community involvement, particularly, underscores who controls these landscapes and whose interests are considered first.

Moreover, the diverse and informal nature of the public further hinders them from fully exercising their legitimate agency towards these spaces. Interestingly, residents are acutely aware of these hierarchies, acknowledging innovation districts as technocratically managed businesses that privilege profitability over community welfare. This awareness fosters a resigned outlook, underlining how capitalism often perpetuates the perception that such developments are immutable despite their inherent malleability (Harvey, 1985; Lefebvre, 1991).

These patterns become more spatially pronounced in the public's experience of innovation districts as territorial enclaves and as mechanisms that enable urban colonisation. Both themes encompass the concept of spatial domination (Lefebvre, 1991) through a two-fold dynamic of excluding the public from these spaces (*'separation'*) and displacing those who reside within them (*'occupation'*). Given that innovation districts are business- and income-oriented, this further implies that these methods are driven by capitalist pursuits to maintain and amplify their power.

4.2 Districts as territorial enclaves

This theme explores how innovation districts establish boundaries that sever the public's connection to them. Although districts lack visible barriers (Drucker and Kayanan, 2024), separation is enacted through global aesthetics and symbolic cues that align these environments with particular social classes. These markers constitute forms of territoriality, whereby control over space creates divisions and limits permeability (Kayanan, 2019). A segregation is thus established, emphasising exclusivity and insider-versus-outsider logics. This produces a geography in which long-standing residents are cast as peripheral actors rather than constituents, thereby normalising feelings of alienation and non-belonging within these settings. In this case, this theme views districts as containers, separating the public from the design and use of these spaces, which in turn shapes them into exclusionary enclaves.

4.2.1 Material alienation

Participants consistently describe innovation district architecture as distinct from Glasgow's wider urban fabric. Characterised as "*new sparkly buildings*" (P4) with "*lots of steel and lots of glass*" (P8), residents share that this contrasts sharply with the city's traditional brick and sandstone landscape (Reed, 1993). While these styles may be visually striking, they are typically perceived as impersonal and contribute to individuals' feelings of isolation towards these areas (Lewicka, 2011). P29 mirrors this tension, stating: "*It just feels like somebody in the City Chambers has decided that Glasgow is going to look like New York.*" By comparing Glasgow to New York, they highlight the detachment of these spaces from the city's character. This underscores the global uniformity of these designs, in which contemporary architecture embodies a more standardised worldview (Jiang, 2024). Such homogenisation often erases local distinctiveness, generating environments that become indifferent or meaningless (Joss *et al.*, 2019). This detachment translates into spatial alienation, defined as the disconnection between local populations and newly built forms that disrupt established socio-spatial relations (Lefebvre, 1991).

This presents a significant challenge for innovation district planners. On the one hand, it has been well documented that target groups within districts prefer these contemporary, standardised landscapes (Florida, 2014; Taecharungroj and Millington, 2023). On the other hand, developers risk undermining the wider place if they neglect to consider local tastes (Kayanan, Drucker and Renski, 2022). This raises the question of whether a middle ground exists between these contemporary (global) and traditional (local) perspectives, although the findings reflect greater privilege for the former. For P29, the answer lies in these material infrastructures themselves and their links to capital accumulation as they assert: "*There's no height restriction, and I'm sure that pleases the developers – of people that will profit from building as high as they can.*" This deregulation was seen as transforming innovation districts into alienating enclaves that prioritise growth over belonging.

Beyond these aesthetic differences, participants also noted broader impacts on their surrounding areas. As P23 shares: "*Old heritage sites are being impeded over these massive buildings.*" P8 resonates this by adding: "*They're encouraging development that will potentially destroy the historic character of this place.*" All this implies that innovation districts exhibit, or even intensify, these placeless qualities, which ultimately magnify residents' sense of alienation.

4.2.2 Symbolic segregation

Surpassing these material demarcations are the symbolic boundaries that discourage the public from engaging with innovation district spaces. While these divides are linked to the view that these initiatives put profit above people, this negativity may be further rooted in an intangible yet pervasive barrier embedded within enduring social class divisions.

Participants consistently articulated a sense of misalignment between themselves and the socio-economic identities of innovation districts. Most identified as working-class, but did not see that identity reflected in district employment opportunities. As P25 states: *“The ordinary person on the street like me.... Am I getting a big fancy job?”* These perceptions resonate with findings that innovation districts primarily cater to knowledge workers and offer highly skilled jobs, excluding those outside these sectors (Kayanan, Drucker and Renski, 2022). Glasgow’s industrial past further shapes this identity (Cage, 2021). P3 reflects: *“Those shipyard jobs... were hugely successful,”* while P1 argues for *“more manufacturing in Glasgow.”* This history contrasts sharply with innovation-led agendas (Florida, 2014), reinforcing occupational and class divisions.

Furthermore, this symbolic inaccessibility is sustained through the inextricable connection of labour and access to income, networks, education, and ultimately space itself (Lefebvre, 1991). This signifies that the uneven distribution of privileges entrenches inequalities in opportunities (Harvey, 1985; Massey, 2005). For this case, innovation district spaces were described as *“closed off to the general public”* (P22), with university associations further widening this divide. As P6 notes: *“People say they wouldn't come because universities were for toffs².”* Innovation districts, therefore, tend to perpetuate or even exacerbate existing class divisions, revealing their exclusionary, socially elitist character.

Accordingly, respondents view innovation districts as territorial enclaves from which they are excluded. This is evident in the physical disconnection of these spaces from the wider place (excluded as neighbours) and from the activities going on (excluded as workers), which foster an ‘us’ and ‘them’ mentality (Lefebvre, 1991). These tensions reflect a form of Othering (Soja, 1996) which is further amplified by districts’ broader tendencies as urban colonisers, as explained next.

4.3 Districts as urban colonial landscapes

Deepening these tensions is the second theme of urban colonisation. Regarding spatial dispossession, urban colonial patterns are a direct reflection of traditional colonialism, in which foundational or indigenous communities are replaced or displaced by new populations (Blatman-Thomas and Porter, 2019). Gentrification is posited as a representation of this

²Toff is a British derogatory term for a rich or upper-class person.

practice (Alexander and Berbary, 2021). For innovation districts, this reassembly manifests as the erosion of communities, the marginalisation of local narratives, and the limited power of residents over their spatial surroundings. These dynamics reshape and reorient everyday environments, destabilising established community life and increasing precarity for long-standing residents. Hence, moving beyond containment, this theme highlights the invasive nature of innovation districts through their active restructuring of pre-existing environments.

4.3.1 Community displacement

The geographical feature of innovation districts pertains to their need to accumulate space (Kayanan, 2019). This arguably extends to practices of urban colonisation, given the evolving nature of space (Massey, 2005), and the fact that districts are inevitably constructed over past urban forms. This would mean that districts tend to reconfigure social realities, as evidenced by their gentrifying qualities (Morisson and Bevilacqua, 2019). This process of dispossession and expulsion is likewise felt by interviewees, who add that, beyond being priced out of these settings (Zandiatashbar and Kayanan, 2020), they contribute to the displacement of their communities and the marginalisation of public needs.

Participants repeatedly describe an influx of transient populations that mirror the profile of knowledge workers (Florida, 2014), who are reshaping the city's social fabric. Residents feel that districts and broader urban strategies prioritise housing and amenities catering to these demographics, often at the expense of long-standing communities. As P4 explains: *"The worry I have as a resident is (that) they're just winding that down to develop it into student accommodation... and take away our public spaces."* Similarly, district-adjacent services were perceived as exclusionary with P29 asking: *"What about the rest of us?... I want to have... something simple and it's as if we're asking for the moon."* These views were predominantly voiced by residents living within or near districts, suggesting proximity intensifies awareness of and exposure to uneven development. Describing it as an *"erosion of stable community"* (P2). P30 elaborates:

"They're changing the dynamics of the people that already live here. People want the city centre to do well, but it just seems that we're not having a say.... I don't think there's been an actual residential development built within the city centre in the last 10 years."

These accounts partially affirm Mulgan, Williams and McGee's (2024) claim that innovation districts erase pre-existing communities. While intentionality remains unclear, districts nonetheless follow logics of colonisation and replacement. Revitalisation discourses render pre-existing places and populations inconsequential, reproducing colonial patterns of land

reappropriation through denial or displacement (Simpson and Hugill, 2022). Lower-income and working-class households are typically displaced first (Elliott-Cooper, Hubbard and Lees, 2020), reflecting the classist nature of these processes. Such transformations can be understood as forms of systemic violence, whereby structural forces produce dispossession without overt intent (Baeten *et al.*, 2017). Negatively affected by these changes, residents are thus positioned as the subaltern Other in these spaces (Soja, 1996).

4.3.2 Reappropriating narratives

This subjugation is further bolstered through narratives of revitalisation that overshadow local experiences. Innovation districts are commonly portrayed as open, diverse spaces that foster urban development (Yigitcanlar, Adu-McVie and Erol, 2020; Webster, Thuriaux-Aleman and Khoury, 2021). While these visions suggest inclusivity and improved well-being, they often sanitise processes of occupation most acutely felt by displaced populations (Hinkson, 2017; Carnahan *et al.*, 2020).

Interviewees consistently challenge these idealised portrayals, arguing that districts either obscure or exacerbate persistent local problems. As P19 states: *“It’s all about bike lanes, green issues, (and) sustainability... but it’s not the issue in the middle of deprivation.”*

Likewise, for P15, such initiatives are largely irrelevant to those facing socio-economic hardship, sharing: *“If you’ve got someone going to a food bank, this probably is all meaningless to them.”* These insights underline that districts tend to overlook local contexts while obscuring inequalities behind their polished facades. Moreover, they reveal a politics of sanctioned visibility (Hinkson, 2017; Glover, 2019), where polished district imagery legitimises capitalist agendas while silencing local struggles (Carnahan *et al.*, 2020).

These carefully constructed stories, however, arguably remain precarious as, in the absence of genuine public consideration, fractures will inevitably appear. As P11 remarks: *“There’s definitely opportunity for it to be a good thing. It just needs to be considerate of the local picture.”* P1, however, is less pragmatic, cautioning:

“If you don’t get your basics right, all the good work you’re trying to do is pointless.... I think if you get those fundamentals right and build on that, you will reap greater prosperity and everything these innovation districts aspire to create.”

Their sentiment implies that meaningful urban prosperity requires confronting, rather than concealing, everyday problems. While enhancing the city’s profile through innovation districts may bring economic and symbolic value, they risk becoming superficial solutions

that sideline public concerns. The lasting success of these developments, therefore, hinges on their ability to address foundational needs and champion local voices.

4.3.3 Limited ownership

While innovation districts undoubtedly transform their surroundings, they do not entirely erase what came before. Threads of connection persist, anchoring foundational communities through third places such as green spaces, restaurants and cafes, and cultural landmarks. P2 comments: *“My main understanding of all the things here is themselves.... Cultural and green spaces.”* In other words, residents feel most attached to third places because of their continual use and habitation of these sites (Dolley, Bosman and Elgar, 2019). These places act as remnants of the pre-district landscape and provide continuity for foundational community identities. Their inclusion signals openness and historical acknowledgement, seemingly empowering locals to inhabit and shape communal environments (Lefebvre, 1991).

Yet beneath these apparent autonomies, it is argued that public mobility remains constrained and defined by technocratic elites. Restating sanctioned visibility, the presence of locals within district third places is contestably shaped by institutional systems that allow them to inhabit these spaces (Hinkson, 2017; Glover, 2019). Public engagement is largely confined to curated leisure spaces, reinforcing marginal ownership and exclusion from strategic or innovative domains. Framing limited access as empowerment obscures ongoing dispossession (Blatman-Thomas and Porter, 2019), with the illusion of agency serving as a pacifier or deflection from more assertive acts of spatial reclamation. Finally, these third places, while open to all, are also retained for the districts’ target audiences, reaffirming that locals become incidental beneficiaries of these areas rather than true agents.

In essence, innovation districts enact urban colonisation through regeneration processes that displace pre-existing peoples and spaces. These dynamics reproduce capitalist logics of spatial reorganisation oriented towards value extraction, determining who benefits and who is dispossessed (Simpson and Hugill, 2022). While districts present themselves as icons of progress, they simultaneously mask persistent inequalities. Like traditional colonialism, districts have the power to claim space, reframe narratives, and regulate access to their spaces. All of which positions the public as the subaltern Other.

Notably, these findings cannot be assumed to be generalisable as processes of territoriality and dispossession vary in degree depending on a multitude of factors. Nevertheless, this analysis provides a spatial lens on how urban initiatives that fail to

integrate diverse public voices risk reproducing conditions that marginalise certain groups within their own spaces. Referring to Glasgow's context, P23 shares: "*The motto is 'People Make Glasgow' and they've forgotten about us.*" Her statement poignantly captures this message that without a genuinely inclusive governance model, innovation districts will likely continue to leave long-standing communities disempowered and voiceless.

5 Conclusion

Innovation districts embody a deep urban paradox. On the one hand, they serve as initiatives that stimulate economic growth and regenerate declining environments (Webster, Thuriaux-Aleman and Khoury, 2021; Katz and Wagner, 2024). On the other hand, they alienate, displace, and marginalise the very people they claim to uplift. In pursuing modernity and new economies, they leave behind other groups that inhabit the wider place. Furthermore, beneath their polished façade lies a quieter story of erasure and the reinforcement of power that silences and dispossesses foundational communities. These tensions underscore the enduring struggles over urban space and the contentions between ideals of inclusion and capital mechanisms (Harvey, 1985; Lefebvre, 1991). Considering this study, the quadruple helix model of innovation appears less as a framework for balanced collaborations and more as an instrument that conceals power hierarchies, relegating certain actors to the margins. Foregrounding power, space, and public experience unveils how innovation districts, as place-based developments, materialise a deeper clash between growth-led urbanism and democratic city-making. Can such contradictions ever be reconciled, or are they an inevitable consequence of capitalist progress? Ultimately, innovation districts reflect this perpetual dilemma, revealing that while people may lay claim to space, spaces that emerge are not always built to claim all in return.

Theoretically, this study contributes a critical lens to the quadruple helix model of innovation (Carayannis and Campbell, 2009). By illuminating the uneven dynamics among key players, it contests normative accounts of this governance approach that portray stakeholders as equal collaborators in these spaces. Whereas some scholarship has alluded to these asymmetries (Heaphy and Wiig, 2020; Kayanan, 2022), this work advances the innovation district governance literature by directly incorporating the public perspective and adding qualitative insights that challenge trickle-down assumptions and the conflation of collaboration with parity. Moreover, utilising social space theory (Lefebvre, 1991) deepens theorising about barriers that prevent meaningful public participation and lead to negative consequences. While it has been asserted that districts present physical and social barriers (Pancholi,

Yigitcanlar and Guaralda, 2017; Mulgan, Williams and McGee, 2024), this study shows that such barriers are beyond issues of infrastructural connectivity or the proliferation of new elites. They are also tied to aesthetic alienation and the amplification of entrenched class disparities. In addition, it echoes research on urban colonialism (Blatman-Thomas and Porter, 2019; Alexander and Berbary, 2021) and furthers gentrification literature (Morisson and Bevilacqua, 2019; Zandiatashbar and Kayanan, 2020) by framing innovation districts as colonial-technocratic assemblages wherein dispossession not only pertains to material conditions but also results in emotional, identitarian, and cultural effects. The processes of territorial enclaves and urban colonisation also contribute to the operationalising of spatial domination, ultimately revealing how power imbalances are concretised within these spaces.

Rather than offering a concrete blueprint, this study calls for a fundamental rethinking of the ideological foundations of innovation districts, questioning assumptions that growth-led, top-down development inevitably leads to broader societal regeneration. Conceptualising districts as territorial enclaves and urban colonial landscapes suggests that genuine change requires more than expanding public engagement; it demands confronting whose futures are prioritised and whose claims to the city are recognised. At the very least, innovation districts should be more transparent about their objectives and beneficiaries, rather than promise inclusive social benefits while overlooking their asymmetrical consequences. Moreover, pursuing social justice would necessitate bottom-up approaches that challenge prevailing systems and support alternative or community-led visions of urban prosperity that celebrate long-standing communities rather than treating them as collateral for innovation.

The study has several limitations. Its focus on Glasgow's city-based innovation districts limits generalisability to areas with different spatial, ideological, or governance contexts. It is less applicable to innovation parks or out-of-town campuses, which are typically more peripheral and less connected to everyday community life. By contrast, city-based innovation districts are embedded within pre-existing neighbourhoods, where their socio-spatial effects are felt more directly by local populations. The findings are also situated within neoliberal contexts, reducing transferability to societies organised around different developmental models. Additionally, data reflects only public perspectives and should be seen as experience-based truths rather than objective realities. Community council outlooks are also shaped by their members' positionalities and may not capture all views within their communities. The sample was further skewed toward older demographics, with limited representation from younger people due to lower council involvement. Although knowledge workers were not excluded, none participated, which could be incidental or indicative of their detachment from

the local place. The findings, therefore, foreground foundational community experiences rather than a comprehensive account of all groups. One-time interviews also limit insight into how dynamics evolve, with a socio-spatial framework downplaying alternative interpretations.

Future studies can pursue several directions. First, research should examine inclusive governance frameworks, bringing to the fore the conditions that can stall or reverse enclaves and colonisation. Second, expanding the range of public perspectives to include diverse groups, from foundational citizens to transient populations, may help draw a more comprehensive picture of public connections and innovation district effects. Third, further inquiry may use longitudinal designs to assess the long-term impacts of these spaces. Fourth, incorporating other stakeholder views would offer a more holistic understanding of these processes. Lastly, studies can investigate innovation district narratives and how these representations may reproduce power, mask inequalities, or legitimise particular ideologies.

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Appendices

Appendix 1: Interview questions

How did you get involved in the development of the innovation district?

How do you think government and the private sector influence the planning of these districts?

How about local communities and the public?

From your perspective, what are the objectives of these districts?

Have there been instances of public resistance during the district's development? If so, how were they handled?

How do you use the district's spaces in your daily life?

How would you describe the accessibility of the district's spaces and buildings? What challenges, if any, do you face?

What does the district mean to you beyond its physical spaces? Why?

Are there places in the district that feel more or less welcoming? Why?

Have there been any efforts from the district to preserve and showcase the city's cultural and historical heritage? If so, in what ways?

How do you think the district's development has affected the city and community life?

Have you or the local community suggested different ideas for the district? How were these received?

From experience, how does the district respond to concerns or feedback from the local community?

Appendix 2: List of participants

Table 2. List of interviewees and their respective community councils.

Community Council	Participant	Role	Years of Residence
1	<i>P1</i>	Planning Liaison	40+ years
2	<i>P2</i>	Vice-Chair	70+ years
3	<i>P3</i>	Secretary	50+ years
4	<i>P4</i>	Planning Liaison	10 years
	<i>P5</i>	Community Engagement Officer	10 years
	<i>P6</i>	Publicity Officer	10 years
5	<i>P7</i>	Planning Liaison	40+ years
	<i>P8</i>	Secretary	35+ years
	<i>P9</i>	Community Engagement Officer	35+ years
	<i>P10</i>	Community Member	60+ years
	<i>P11</i>	Community Member	50+ years

	<i>P12</i>	Community Member	60+ years
	<i>P13</i>	Community Member	45+ years
	<i>P14</i>	Community Member	40+ years
	<i>P15</i>	Community Member	20+ years
	<i>P16</i>	Community Member	20+ years
	<i>P17</i>	Community Member	10 years
6	<i>P18</i>	Chair	40+ years
7	<i>P19</i>	Secretary	50+ years
8	<i>P20</i>	Secretary	40+ years
9	<i>P21</i>	Chair	45+ years
10	<i>P22</i>	Chair	10 years
	<i>P23</i>	Vice-Chair	25+ years
11	<i>P24</i>	Chair	25 years
12	<i>P25</i>	Vice-Chair	30 years
	<i>P26</i>	Chair	70+ years
13	<i>P27</i>	Vice-Chair	50+ years
14	<i>P28</i>	Chair	35 years
	<i>P29</i>	Secretary	40+ years
	<i>P30</i>	Vice-Chair	35+ years

Appendix 3: Six-step thematic analysis process

Table 3: Phases of thematic analysis based on Braun and Clarke (2006).

Phase	Description of the process
1. Familiarizing yourself with your data:	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes:	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.
5. Defining and naming themes:	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6. Producing the report:	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

