

Research

Sustainability power to the people: BREEAM Communities certification and public participation in England

William Chantry¹ · Catalina Turcu¹

Received: 14 March 2024 / Accepted: 2 September 2024

Published online: 31 October 2024

© The Author(s) 2024 [OPEN](#)

Abstract

Incorporating public participation into planning and construction practice is challenging, however, it is seen as a prerequisite for the successful implementation of sustainable urban development. Sustainability certification schemes such as BREEAM have been instrumental in guiding practitioners and developers to plan, design and build to high sustainability standards, yet the evidence for how these standards draw on and are framed by public participation inputs and processes is scarce. This paper unpacks such evidence concerning the application of BREEAM Communities in England, by examining data from 12 certified developments, selected out of 28 such developments, which is then analysed through Chantry's heuristic of seven political spaces of citizen engagement. Overall, the study finds uneven levels of public engagement across the various political spaces of engagement. Requirements for public participation are stringent at the later 'proposal' and 'implementation' stages, with the potential to facilitate high-quality engagement. However, such requirements are vague or poor at the earlier 'information provision' and 'deliberation' stages, where the public should be provided with tools to generate realistic and informed proposals. The paper reflects on implications for BREEAM Communities processes and guidance and further extends Chantry's heuristic by adding two new political spaces, 'attitudes to participation' and 'timing of engagement'. This enhanced heuristic builds a more complete picture of the key politicised stages of the participation process during BREEAM Communities certification, and contributes to current theoretical and empirical debates on gauging the effectiveness of public participation in sustainable urban development not just in an English context but internationally.

1 Introduction

This paper explores how public participation is incorporated into the sustainability certification of design, masterplanning and infrastructure projects in England, with a particular focus on the Building Research Establishment Environmental Assessment Method for Communities (BREEAM Communities thereafter)—a sustainable certification scheme which scores projects against a list of criteria relating to the social, environmental and economic sustainability of spatial development—in order to unpack lessons for a global audience. The importance of 'public voice' in decisions about the development of the built environment has gained traction since the 1960's [1] and has become, more recently, a prominent preoccupation for urban planning theory and practice [2]. Participatory planning, or planning that accounts for voices from the bottom, is challenging and has been labelled as tokenistic, involving citizens only in trivial planning decisions [3], however, innovative models and methods to facilitate better participation are being developed all the time [4, 5].

With a realisation that our world is interconnected and finite and that the climate crisis requires sustainable urban transformation, the sustainability agenda has also risen to the fore in urban planning debates [6]. This has been marked

✉ William Chantry, will.chantry@gmail.com; ✉ Catalina Turcu, catalina.turcu@ucl.ac.uk | ¹University College London, London, UK.



Discover Sustainability

(2024) 5:371

| <https://doi.org/10.1007/s43621-024-00473-2>

in the built environment by the emergence of sustainability certifications: voluntary accreditation schemes that reward developers' sustainability efforts with a credit-based score. Building-level sustainability certification schemes such as BREEAM New Construction in the UK and LEED (Leadership in Energy and Environmental Design) in the US have been relatively well-used in the development sector since the 1990s [7]. More recently, however, neighbourhood-level options have been developed such as BREEAM Communities and LEED-ND (LEED for Neighbourhood Development) to allow for the evaluation of buildings but also other aspects that are integral to sustainable built environments such as 'spaces in-between' and 'services provided' [8]. Certification schemes provide an ideal platform to incorporate public participation into sustainability assessment, and BREEAM Communities is viewed as one of the most socially oriented and including the most stringent criteria for public engagement [9, 10]. However, critics argue that certification schemes are biased towards the environmental dimension of sustainability [11]; and often marginalize public participation, treating it as an ancillary rather than a core component of the development process [12] hence lacking substantive impact on decision-making processes and project delivery [13].

This paper interrogates further such views by asking the following research question: *How does BREEAM Communities facilitate, engage with and deliver on public participation requirements?* To answer, it applies Chantry's heuristic of *seven political spaces* [14] to a pool of BREEAM Communities-certified projects. In doing so, two important contributions are made. Theoretically, the paper tests the validity of an existing normative framework (Chantry's heuristic) for discussing the quality of public participation in urban development processes [14], developing it further, hence contributing to theory-building. While many models discussing public participation exist, Chantry's heuristic is unique to our knowledge by specifically contextualising such participation within spatial development processes such as urban design, masterplanning and construction. The heuristic also attempts to combine two key research lenses within participation frameworks. Empirically, the paper draws on a representative sample of BREEAM Communities-certified projects in England, thus offering a relatively robust indication of public participation quality on the ground.

Following this introduction, the paper consists of six other sections. Section 2 reviews debates on participatory planning and sustainability certification schemes, and introduces Chantry's heuristic as its analytical framework. Section 3 looks at the paper's methodological approach and Section 1 details the results. Section 4.3.1 discusses the findings and suggests further developments to Chantry's heuristic. Finally, Sect. 6 concludes the paper and draws implications for theory and practice on a global scale.

2 Participatory planning and sustainability certification

Planning is a highly political process which aims to reconcile different party interests over the use and development of land and, the participation of the public in planning processes has been signposted in many countries across the world as a lever for democratisation of such interests, especially since the rise of social rights and environmental justice movements in the 1960s [15]. Public participation in planning is a widely acknowledged planning principle today, but its implementation varies significantly across planning traditions. Developed countries often lead in institutionalizing participatory planning mechanisms, while less developed countries face more challenges but also exhibit innovative grassroots planning initiatives; with transition countries navigating complex paths, which balance authoritarian legacies of the past with aspirations for more inclusive and democratic planning practices. Conceptually, this has been discussed by scholars under various schools of thought including 'advocacy planning' in the 1960s, where planners negotiated on behalf of the public [1]; 'transactive planning' in the 1970s, which stipulated that in-person participation should occur to include the public voice [16]; 'communicative planning' in the 1980s whereby for high-quality public engagement to occur, all stakeholders should be treated equally, and sufficient time should be allocated to allow them to deliberate and reach a consensus [17]; and, more recently, 'collaborative planning' which views the public as an important actor in balancing power dynamics within the planning process and highlights how collaboration between interest groups can build mutual understanding across society, fostering more positive planning outcomes for all [18, 19]. Accommodating the public view and allowing for representation and democracy in planning processes is even more relevant today and a timely push-back to the rise of the neoliberal agenda which favours private sector interests over those of the public [20].

Many scholars, however, argue that these principles are overly idealistic, particularly in a neoliberal planning context where stakeholders are rarely given the absolute freedom to contribute their ideas and debate [21, 22]. It is unclear whether high-quality public participation can be achieved, with real-life engagement practice being challenged in many planning contexts [23, 24]. Eriksson and colleagues discuss the *who* and *how* of public participation, two contested

dimensions: 'who is involved' usually represents the already-privileged voices in society while the marginalised ones are excluded; and 'how engagement occurs' can be problematic, raising questions about the extent to which the public is involved [25]. The public can often be afforded little agency to make proposals [24] and can be manipulated to consider only certain ideas [26], giving other parties such as developers and planners the power to 'frame' the public views as 'extended self-interests' to devalue their importance [27]. Equally, public input can be limited by the timing of the engagement process, with developers choosing to conduct this after major project decisions have been made [27]. At the same time, sustainability-related debates around energy decentralisation and planning practice argue that public views do not always align well with wider sustainability concerns, as they are usually anti-development of any kind and anchored in locality [6, 15, 28]. Beierle and Koninsky argue that there is reason for guarded optimism regarding public participation in environmental planning, as the public is composed of diversified interests and perspectives which can counteract wider environmental concerns [29]; and Agyeman and Evans note that most environmental planning processes are framed by power dynamics that determine who gets to make decisions and who is excluded hence, marginalising local communities and failing to account for their knowledge and needs [30]. This is to say that public participation can sometimes be co-opted by powerful interests, leading to outcomes that favour certain groups over others [31]. This echoes findings from research in political ecology, which has found that government agencies and other powerful stakeholders strive to 'contain the heterogeneity of discourses' to ensure the collaborative process fits 'predetermined goals' [32].

Public participation, however, remains at the heart of planning scholarship. More recently, digital participation has been highlighted as holding the potential to enhance the breadth and depth of public participation [33, 34], despite potentially exclusionary applications, determined by the lack of access to the internet or inability to use the technology [35]. It is also acknowledged as an important dimension of sustainable places and communities [36, 37]. Hence, public participation requirements and mechanisms have been included in many tools and frameworks that support sustainable built environment practice, with sustainability certification schemes being one such example. These are voluntary accreditations that allow developers to display their sustainability performance and so, increase their credentials [38].

Accreditation schemes such as BREEAM in the UK and LEED in the US have experienced a relatively high uptake since the 1990s. While these two are relatively established and popular with developers worldwide, others exist such as CASBEE in Japan, DGNB in Germany, Miljöbyggnad in Sweden, Green Star in Australia, Green Mark in Singapore, TREES in Thailand and so on. They are voluntary, credit-based tools for assessing sustainability performance, across a number of dimensions including environmental, social and/or economic aspects, and facilitating informed decisions for sustainable development in the built environment [7]. It is argued that they contribute to the operationalisation of sustainable development in the development sector while adding a premium to property values [7, 39], but also encourage sustainable practices more widely across the building industry, better environmental performance [40] and provide developer access to financial incentives such as tax rebates, grants, and reduced insurance premiums [41]. But they come with their own limitations. They can be biased towards environmental dimensions of sustainability, followed by social and economic [11], promoting the use of 'light green' sustainability strategies that fail to account for contextual specificity [42]; and are subjective, that is to say that different schemes and assessors can produce different scores for the same building [43, 44]. Moreover, since accreditation is threshold-based, developers can 'manipulate' scores to achieve the maximum result with minimal costs, i.e. aim for credits that are easy to implement at the expense of those with greater benefits sustainability-wise or aim for the lowest necessary credits to reach a threshold [45]. The development of certification criteria has mirrored wider developments in sustainability discourse since the early 1990s and Turcu offers a detailed discussion of their types, classifications and specific focus within the wider claim of sustainability [7]. Namely, prioritising environmental sustainability criteria such as energy use, pollution and biodiversity, to start with, and followed by economic sustainability aspects such as number of jobs and business activity; most criteria being easy to quantify and drawing on already existing data. Increasing attention to social sustainability aspects since the late 1990s and early 2000s has put criteria such as public participation at the heart of sustainability accreditation and BREEAM Communities is perhaps the first to include such 'social' requirements [10].

BREEAM Communities was launched in 2009, to certify the sustainability performance of large-scale residential and mixed-use developments, in a three-step assessment process: 'establishing the principle of development'; 'determining the layout of the development'; and 'designing the details' [46]. Much of the relevant literature is descriptive and case-study-based. Comparisons exist between BREEAM Communities and LEED-ND certified developments, examining indicators, weightings etc. [11]; and more critical views refer to its contextual inadequacy and recommend a better use of public participation to improve contextual relevance [47, 48]. BREEAM Communities certification is done across six dimensions, ranging from 'energy' to 'ecology', and including 'governance' which is broken down into four further criteria aimed at gauging public participation throughout the development process (see the following section for more

detail) [46]. Despite the inclusion, however, there is little evidence of how effective these criteria are at work in the UK or elsewhere. One exception is Oliver and Pearl's study which discusses one BREEAM Communities development in Malmo, Sweden [49]. They find that the public has been given little opportunity to influence the project because public consultation was conducted too late in the process [49]. This paper aims to contribute to the debate on the efficacy of BREEAM Communities criteria for public participation.

The level and quality of public participation is not always easy to assess, but several conceptual frameworks do exist. The first important example is Arnstein's ladder of citizen participation, which ranks public engagement on nine levels: manipulation, therapy, informing, consultation, placation, partnership, delegated power and control [50]. Since Arnstein, scholarship concerning public participation frameworks has developed along two broad lines: 'ladder' studies that have directly taken inspiration from Arnstein's work and further tried to operationalise public participation including Hart's ladder of children participation, and Pretty's typology, among others [51, 52]; and 'politicising' studies which have built on Arnstein to emphasise the agency-power dimension of public participation, such as Treseder's degrees of participation, White's typology of interests, Shier's pathways of participation, Badham's and Davies' matrix of participation and Reed et al.'s wheel/theory of participation [53–57].

While the first category of participation framework-based studies are important as a metaphor and present useful graphical illustrations of participation quality, they do not engage much with the numerous relational complexities that contribute to good quality participation which have been highlighted in both planning and political ecology scholarship [24–27, 30–32]; namely, issues of power, conduct and intention. It is here where the second category of 'politicising' frameworks add value, by examining the contradictions between the aspiration of access to power and status by the powerless, and the potential for restriction and control by the powerful. It is also this second line of inquiry that this paper aligns with, however, fewer participation framework-based studies have looked at the politics of public participation in the built environment context. One exception is Chantry's heuristic of citizen engagement, initially created for the context of smart city planning [14]. Chantry categorises engagement across seven distinct yet interlinked 'political spaces' (selection, design, information, deliberation, formation, discourse and implementation) which are shown in Fig. 1, each integral to the overall quality of participation and each able to afford citizens different degrees of control [14]. Each political space is further nuanced across five degrees of public participation, rated from 1 (the lowest) to 5 (the highest). In other words, the higher the cumulative score across the seven political spaces, the higher the extent and quality of public participation in the planning process [14]. Visualising and examining these multiple 'spaces' of engagement as distinct facets of public participation allows a more granular analysis to be achieved, combining the graphical illustration and appreciation of relational complexities from both categories of studies described above. For this reason, alongside its explicit focus on participation in built environment planning, Chantry's heuristic provides the conceptual and analytical framework for analysing the quality of public participation in BREEAM Communities processes in what follows.

3 Methodology

This paper builds on a mixed-method research design, with a predominant focus on qualitative data, which was developed in three stages. First, a scoping survey was conducted across **all** BREEAM Communities-certified and registered developments in England, to ensure representation of findings. Second, 12 certified developments were selected and, third, interviews with 8 BREEAM Communities assessors were conducted using Chantry's heuristic to guide the interview protocol and analysis of data [14]. These are discussed in more detail below.

The scoping survey entailed a quantitative analysis of the frequency and range of BREEAM Communities certifications in England. Data was collected where available on location, name of developer and BREEAM Communities assessor, type of development and certification scores, to understand the spatial distribution of such certified developments and identify their broad characteristics. To do so, the Greenbook Live database was searched in August 2022 [58]. Greenbook is a live database, powered by the British Research Establishment (BRE), the creator of BREEAM Communities certification scheme, which is updated daily. In total, **28 projects** were identified as BREEAM Communities-certified with 31 BREEAM Communities named assessors.

In terms of project selection, all 31 BREEAM Communities assessors were contacted via email with **eight** agreeing to participate in the study (coded Assessor 1–8). All interviewees had assessed at least one BREEAM Communities project listed in the database, with some assessing more than one. In total, 12 projects were assessed by the eight interviewed assessors (see Table 1).

Fig. 1 Chantry's seven political spaces of citizen engagement [14]

Citizen selection	+1 Selection by stakeholder	+2 Selection by stakeholder and external administrator	+3 Citizen self-selection	+4 Selection by external administrator	+5 Random selection
Design of engagement content	+1 Designed exclusively by the stakeholder	+2 Designed by stakeholder and independent administrators	+3 Designed by independent administrators	+4 Designed by independent administrators, citizens consulted	+5 Design led by citizens
Information provision	+1 Information provided exclusively by the stakeholder	+2 Mostly provided by stakeholder, some provided independently	+3 Mostly provided independently, some provided by stakeholder	+4 Provided exclusively by independent administrators	+5 Provided by independent administrators and citizens
	+1 Minimal time given to information provision	+2 Limited time given to information provision	+3 Considerable time given to information provision	+4 Substantial time given to information provision	+5 Extensive time given to information provision
Deliberation	+1 Minimal time/space given to deliberate	+2 Limited time/space given to deliberate	+3 Considerable time/space given to deliberate	+4 Significant time/space given to deliberate	+5 Extensive time/space given to deliberate
Proposal formation	+1 Citizens are participants, learners. No active input.	+2 Citizens are feedback-givers to specific ideas	+3 Citizens are vision-makers- no concrete proposals made	+4 Citizens give proposals responding to specific prompts	+5 Citizens autonomously give detailed proposals
Discourse production	+1 Discourse exclusively produced by stakeholder	+2 Discourse produced by external administrators with the stakeholder	+3 Discourse produced by stakeholder and citizens	+4 Discourse produced by external administrators	+5 Discourse produced by the external administrators and/or citizens
Proposal implementation	x0 No citizen proposals are implemented, citizens are ignored	x1 Citizen proposals largely ignored, few proposals indirectly influence policy	x2 Some citizen proposals indirectly influence decisions, few original proposals are implemented	x3 Multiple original proposals are implemented, choices made by the stakeholder	x4 Most original proposals are implemented, citizens vote on which to administer

The eight BREEAM Communities assessors were interviewed to provide an understanding of the amount and quality of public participation in each project. The interview protocol followed Chantry's heuristic, asking interviewees questions about the criteria for selecting the public for consultation, the design of the public consultation and information provided, deliberation and proposal formation processes, as well as overall discourse and implementation of project proposals. Additional questions were asked to gauge the assessors' experiences of the BREEAM Communities assessments and to understand whether there were other factors, external to Chantry's heuristic, that influenced the extent and quality of public participation. During the interview process, it was clear that discourse production and proposal implementation would not be sufficiently covered to assess, the former due to the need for detailed documents not always in the public domain and the latter because of the same reason as well as the fact that multiple BREEAM Communities projects were not completed at the time of interview. This should be addressed in further research, perhaps specifically examining these spaces of engagement.

The interviews were selectively transcribed and relevant sections were coded with Atlas.ti, a software programme which orders, codes and compares text, to draw out patterns from the data [59]. Etic codes, analytical tags derived from Chantry's heuristic, were generated, including 'information', 'consultation' and 'feedback'. Emic codes, those emerging organically from the interview transcript, were also generated such as 'developer attitude', 'assessor attitude', 'mandatory' and 'time'. This permitted a structured yet flexible approach to data analysis [60]. While the etic codes helped reinforce the utility of the analytical framework, the emic codes informed the development of additional political spaces of public participation outside such framework, strengthening further its contextualisation and application potential. The development of these spaces also supports findings from the existing literature [20–23, 27].

4 BREEAM Communities and public participation

4.1 The 'big' picture

BREEAM Communities was developed by BRE (Building Research Establishment) in 2009 (since updated in 2012) as a neighbourhood sustainability certification scheme [11, 46, 48]. The scheme assesses large mixed-use and residential developments across six themes: governance; social and economic well-being; resource and energy; land use and ecology; and transport and movement [38]. Developers accrue credits that add up to a rating: Unclassified (< 30), Pass (30–44), Good (45–54), Very Good (55–69), Excellent (70–84) or Outstanding (85+) [46]. Some credits are mandatory, meaning they are necessary to receive any classification. Each of the six categories contributes different weights to the overall classification; Governance holds a 9.3% weighting. Within Governance there are four criteria, each attributed with 'credits' contributing to the overall certification score (see Table 2). These criteria appear broad, failing to explicitly address key determinants of good quality engagement identified in the literature, including participant agency, power imbalances between stakeholders, engagement timing and participant inclusion [21–27].

The total of twenty-eight BREEAM Communities-certified projects registered with Greenbook Live is a small number when compared with BREEAM-certified projects since 1990, which stands at 1239 [61],—this can be explained by the 20-year head-start of BREEAM on BREEAM Communities, but also by the complex nature of BREEAM Communities assessments. The spatial distribution of BREEAM Communities projects is uneven across England, with the majority in the South-East of England (16). The concentration of projects in Hampshire (10), and Eastleigh in particular, as well as Bristol (2), can be explained by their local authorities' respective decisions to make BREEAM Communities a mandatory part of the planning approval for developments over a certain size (Assessor 2 and Assessor 5). Half of the projects (11) received scores above the Pass threshold, as Outstanding (3), Excellent (5), Very Good (2) and Good (1). The other half (10) was rated as '0% Pass'—where a project was certified at Step 1 but either ceased to fully certify for Stage 2 and Stage 3 or were still undertaking assessment (Assessor 6). In terms of type, the certified projects were either residential (12) or mixed-use (8).

All twelve projects employed some form of public engagement initiative or had detailed consultation plans with intent to do so, enabling an assessment of each project's performance on the first five political spaces on Chantry's heuristic [14]. There was a significant overlap in the type of engagement techniques used across the projects, which resonates with Faulconbridge's reference to generic 'light green' techniques for community participation [42]. Low maintenance techniques included letter drops, used to reach out to marginalised groups who would otherwise not hear about a project

Table 1 The twelve BREEAM Communities projects certified by the eight interviewed assessors that were examined in this paper

Project	Location	Developer	Type of development	Score	Assessor Code
Pylands Lane	Eastleigh, Hampshire	Ashill Developments	Residential	89.1% Outstanding	Assessor 2
North Stoneham Park	Eastleigh, Hampshire, SO50 9HP	Highwood Land LLP	Mixed-Use	75.9% Excellent	Assessor 2
Boorley Green	Eastleigh, Hampshire, SO31 8GQ	Ashill Developments	Mixed-Use	74.6% Excellent	Assessor 2
Pembers Hill Park	Fair Oak, Hampshire SO50 7EA	Pembers LLP	Residential	70.1% Excellent	Assessor 3
Crowdhill Green	Fair Oak, Hampshire	Blor Homes/Linden Homes	Residential	70% Excellent	Assessor 1 Assessor 3
Worcester 6 Business Park	Worcester, Worcestershire, WR3	Stoford Developments	Commercial	56.2% Very Good	Assessor 8
One Horton Heath	Horton Heath, Hampshire, SO50	Horton Heath Limited	Mixed-Use	0% Pass	Assessor 5
Battersea Power Station	London, SW11 5BN	Battersea Project Land Company Ltd	Mixed Use	0% Pass	Assessor 4
Clarence Road	Bristol, BS4	N/A	N/A	N/A	Assessor 6
Fishponds	Bristol, BS16	N/A	N/A	N/A	Assessor 6
Bristol Zoo Gardens	Bristol, BS8	N/A	N/A	N/A	Assessor 6
Redcliff Quarter	Bristol, BS1	N/A	N/A	N/A	Assessor 7

and its consultation events (Assessor 1, Assessor 7 and Assessor 8); and questionnaires, which were delivered to residents' doors, containing information about the project with space to submit feedback for collection (Assessor 3 and Assessor 4).

In-person engagement events were used by all twelve projects. They were either framed as charettes, workshops, meetings or consultations. However, all contained similar activities: a presentation about the project, created by the developer or architect and either delivered by themselves or an independent PR company (Assessor 1—8); and display boards with site plans or potential designs for participants to look at (Assessor 1; Assessor 8). After digesting this information, participants were able to ask questions to developers, architects and other experts such as ecologists or transport planners in attendance, although it was more common for only the developer and architect to be present (Assessor 6; Assessor 8). There would also be a verbal opportunity to submit feedback to the developer (Assessor 1; Assessor 2; Assessor 6; Assessor 8). These events were often open invites, relying on the community actively seeking to attend (Assessor 2), with a minority relying on online participation techniques (Assessor 6).

Each project has been placed on Chantry's heuristic in Fig. 2. The highest scoring project was One Horton Heath (17), followed by Battersea Power Station and Pembers Hill Park (both 16), and Boorley Green, North Stoneham Park and Pylands Lane (all 15). All remaining projects received a score of thirteen, aside from Redcliffe Quarter which received twelve. Across the political spaces of citizen selection and design of engagement content, all projects scored similarly. The differentiating political spaces were information provision, deliberation and proposal formation. Concerning information provision, Battersea Power Station had over fifty-five events exclusively delivered by an independent engagement consultant, Cascade, ensuring that community members received knowledge and guidance that was unable to be directly manipulated by the developer (Assessor 4). Meanwhile, many other projects like Worcester 6 Business Park and Crowdhill Green contained presentations delivered directly by the developer or their contracted architect (Assessor 3; 8). The projects that scored higher under deliberation and proposal formation developed engagement formats that were more primed for co-design and open conversations than feedback-giving. For example, One Horton Heath established a 'Local Development Forum' that engaged Parish Councillors, youth leaders, residents and school leaders with the project design team over twelve sessions (Assessor 5). This enabled community members to develop detailed, considered proposals that would be more likely to be incorporated into the final project. Meanwhile, the Redcliffe Quarter contained no space for deliberation; instead, the community were 'briefed' and then asked for feedback via a community group meeting, an online form or posted letters from the letter drop (Assessor 7). Below is a detailed overview of the projects' assessment within each political space.

Table 2 Four criteria of BREEAM Communities that relate to public participation

Criteria	Description	Status	Credits available
GO01 Consultation Plan	Ensuring that ‘the needs, ideas and knowledge of the community are used to improve the quality of stakeholder engagement, throughout the design, planning and construction process’ [36]	Mandatory for step 1	1
GO02 Consultation and Engagement	Ensuring that ‘the needs, ideas and knowledge of the community and key stakeholders are used to improve the quality and acceptability of the development throughout the design process’ [36]	Mandatory for step 2	2
GO03 Design review	Ensuring that ‘the masterplan’s design is reviewed by the community and other key stakeholders, ensuring that it supports a vibrant, healthy, functional and inclusive development’ [36]	Voluntary	2
GO04 Community management of facilities	Ensuring communities are supported to take an ‘active involvement in developing, managing and/or owning selected facilities’ [36]	Voluntary	3

4.2 Political spaces of public participation

All projects assessed in this research employed a similar citizen selection technique, allowing any participant to participate at their own discretion by choosing to turn up. Design of engagement content presented a similarly uniform picture, with all projects designed by either the developer exclusively or alongside external consultants. In terms of information provision, almost all projects included information provision that was primarily delivered by the developer, limiting objectivity; just one project (Battersea Power Station) indicated that the majority of information provision was provided by external stakeholders. All except one project (Redcliffe Quarter) gave some time for participants to deliberate, but only one (One Horton Heath) provided extensive space to deliberate; most projects failed to provide sufficient time or stakeholders to deliberate with. Within proposal formation, six projects only allowed participants to act as feedback givers; whereas four projects allowed participants to make wider comments and submit broad ideas. Only two projects went as far as affording participants the ability to make concrete proposals about specific project elements.

Citizen selection is integral to engagement quality as it determines whether a range of people/communities is/are included in consultation [14]. All of the BREEAM Communities projects discussed by assessors employed a form of self-selection, achieving +3 on Chantry’s heuristic [14]. Much of the engagement events took the format of town hall meetings, where participants could turn up on their own accord to learn about the project, ask questions and deliver their feedback (Assessor 1, 2, 4, 6 and 8). This was often coupled with letter drops, encouraging hard-to-reach groups to attend (Assessor 1, 8). This follows the BREEAM Communities technical manual (GO01 Consultation Plan) which recommends that developers must account for an “*approach that ... targets and provides for minority and ‘hard to reach’ groups*” [46]. Whilst this represents a proactive attempt to include a diversity of voices, these methods still relied on participants making an active choice to come to the engagement if they were interested or available. One interviewee highlighted a more efficient technique in an engagement process they had experienced outside the BREEAM Communities projects they assessed: “*going out and meeting these groups*” at their local places and bringing the consultation process to them, whether this is at a youth centre, a supermarket or a shopping complex (Assessor 2). This method requires community members to make less of an active effort and difficult-to-reach or marginalised groups are more likely to get involved.

The **design of engagement content** is important as it determines how the community can participate and which project areas they can comment on [14]. All projects contained engagement activities designed so that citizens could contribute in at least some capacity. Some engagements were designed by independent consultants and delivered independently, such as Cascade delivering Battersea Power Station’s engagements (Assessor 2, 4, 5). This meant that developers were unable to directly input into the format of the engagement, say, by reducing or augmenting the time

allocated to discussions or talking about certain topics. However, it is hard to determine exactly how independent the facilitators were in designing the engagement, as they were still contracted by the developer. For this reason, all projects were limited to +2 on Chantry's heuristic [14]. The BREEAM Communities compliance notes (GO01 Consultation Plan) demonstrate that engagement design is at least somewhat quality-assured, stating that the developer's Consultation Plan is required to highlight 'points at which the community and other stakeholders can usefully contribute' and include 'information relating to their level of involvement'; while the overall consultation process is required to cover certain themes, including 'impacts of the development upon the surrounding community' and 'design quality' [46]. For this reason, no projects received the lowest score on Chantry's heuristic [14].

Giving citizens access to impartial and plentiful **information** is essential to ensure public participation produces good outcomes [14]. Information provision ranged in quality across the projects. All 12 projects provided some form of information, such as verbal presentations, information boards in consultation spaces or letters delivered to citizens' houses (Assessor 1, 2, 3, 4, 5, 6, 7 and 8). However, some interviewees indicated that it was the developer or those employed by the developer who delivered presentations and produced the information (Assessor 6, 8), meaning citizens were at risk of receiving narrowly framed information. Equally, some engagement formats provided very minimal information to citizens with letters, for example, allocating minimal space for sufficient details to be included (Assessor 4). Without sufficient prior knowledge of the project, it may have been hard for citizens receiving this letter to contribute [14].

Deliberation is equally important to engagement quality, determining the ability of key stakeholders (including citizens) to debate with each other and produce well-refined ideas. Most projects ranked poorly in terms of deliberation quality, as the style of engagement activities and poor provision of information gave little space for citizens to discuss ideas with each other or the developers, limiting their ability to refine their ideas before thinking of proposals. Assessor 6 noted that:

"If someone has a point but perhaps isn't communicating it very well...you want to have the opinions but you want someone there with the technical know-how, with the evidence, with research to kind of guide them a little bit".

Even when there was a type of meeting whereby citizens could spend time asking questions to developers and speaking with each other, in many cases not all relevant project team members were present. In one project only the developer, architect and transport consultant were present, but an ecologist would have been useful to answer relevant questions (Assessor 6). In another project, it was stated that a local authority planner might have been useful to comment on the feasibility of the public's requests alongside the developer in the room, as much of the conversation between developers and planners happened outside of the public eye (Assessor 1). One interviewee reported "private feedback sessions" organised by the developers and local authority (Assessor 8). This fragmentation of stakeholder conversations meant that citizens were unable to access all relevant stakeholders to know the overall direction of the discussion, and therefore fit their ideas within proposals or planning requirements. One Horton Heath was an exception, as the project developed a 'Local Development Forum' with residents and other community representatives, allowing them to discuss with each other and the design team over 12 sessions before making proposals (Assessor 5).

Proposal formation represents the moment at which citizens give their ideas about a project to developers, arguably the principal concern of the engagement process [14]. Projects were ranked as +2, +3 and +4 on Chantry's heuristic. The town-hall events allowed citizens to act as feedback-givers, responding either broadly or specifically to prompts from presentations and display boards, meanwhile questionnaires and letters delivered to citizens allowed for similar quality of proposal making but without the prompts. More advanced activities were described as 'workshops', whereby citizens had more time and ability to work with stakeholders to produce more detailed proposals (Assessor 3, 4, 5). Even so, some workshops afforded more agency to participants than others, with Pembers Hill Park and One Horton Heath demonstrating that concrete proposals could be given. Again, compliance with BREEAM Communities ensured that all projects avoided a score of +1, as GO02 Consultation and Engagement requires that "knowledge of the community and key stakeholders are used to improve the quality and acceptability of the development" in at least some form [46].

Discourse production is an important aspect of engagement quality, as it determines how engagement outcomes are framed, with the potential to influence citizens and further engagement that follows [14]. However, this political space sits outside the BREEAM assessment process; there were no specific requirements within the manual stipulating the control or regulation of discourse produced in the consultation process. Instead, this political space lay at the intersection of one or a combination of stakeholders, including local authorities, developers and consultants. Hence, it was outside the scope of the research, as it was unable to be gained from BREEAM assessor interviews and would have required an extensive and additional review of engagement documentation. Interviewing all the stakeholders involved in discourse production and reflecting on its 'construction' and power dynamics, and any subsequent implications for public engagement

Citizen selection	+1	+2	+3 All projects	+4	+5
Design of engagement content	+1	+2 All projects	+3	+4	+5
Information provision	+1	+2 Crowdhill Green Pembers Hill Park One Horton Heath Worcester 6 Business Park Zoo Gardens Fishponds Clarence Road Pylands Lane North Stoneham Park Boorley Green Redcliffe Quarter	+3 Battersea Power station	+4	+5
	+1	+2 Crowdhill Green Worcester 6 Business Park Redcliffe Quarter Zoo Gardens Fishponds Clarence Road	+3 Battersea Power Station Pembers Hill Park One Horton Heath Pylands Lane North Stoneham Park Boorley Green	+4	+5
Deliberation	+1 Redcliffe Quarter	+2 Crowdhill Green Pembers Hill Park Battersea Power Station Worcester 6 Business Park Zoo Gardens Fishponds Clarence Road Pylands Lane North Stoneham Park Boorley Green	+3 One Horton Heath	+4	+5
Proposal formation	+1	+2 Crowdhill Green Worcester 6 Business Park Redcliffe Quarter Zoo Gardens Fishponds Clarence Road	+3 Battersea Power Station Pylands Lane North Stoneham Park Boorley Green	+4 Pembers Hill Park One Horton Heath	+5
Discourse production	+1 n/a	+2 n/a	+3 n/a	+4 n/a	+5 n/a
Proposal implementation	x0 n/a	x1 n/a	x2 n/a	x3 n/a	x4 n.a

Fig. 2 An indicative ranking of the BREEAM Communities projects according to Chantr'y's political spaces of citizen engagement heuristic [11]

framing, is a potential direction of future research in which the relation to 'official attitudes of engagement' (discussed below) can be built on. This also indicates that BREEAM Communities should look to incorporate requirements relating to discourse production in public participation.

Proposal implementation is the final political space on Chantry's heuristic [14]. This is the stage at which the public voice is turned into concrete action. Due to the fact that some projects had not fully completed at the time of interviews, an assessment of proposal implementation quality was also infeasible in this research. To do so, a more granular understanding of the substance of public sentiment and how they were incorporated into each project would have been required, including research into developer documentation which is not in the public domain. Even so, it is reassuring to know that the BREEAM Communities guidance (GO02 Consultation and Engagement) requires high levels of transparency here and requires developers to provide consultees with a summary of how their questions and concerns were addressed, including clear explanations of why some were considered while others rejected [46]. Furthermore, when discussing anecdotally this stage of engagement, assessors had mixed experiences with proposal implementation quality. In one good practice project, the developer clearly listened to and addressed the public's concerns: from early on it was clear that citizens wanted to address youth unemployment in the area, so developers included in the masterplan a youth training academy to give local young people access to skills and training (Assessor 4). However, interviewees were wary of the power developers hold and there was scepticism towards developers' willingness to take on the public's suggestions, especially if they were high-cost (Assessor 1). It would therefore appear that BREEAM Communities' stipulations can still fail to prevent reasonable requests from being ignored. A thorough examination of developers' responses to public concerns and suggestions is another potential direction for future research that can shed more light on how public ideas are accepted or rejected throughout the development and how this relates to 'official attitudes to engagement' discussed below.

4.3 New spaces of public participation

Chantry's heuristic was useful in assessing the in-engagement factors affecting public participation quality in BREEAM Communities projects. However, due to the nature of its conception, stemming from document analysis [14], the heuristic did not include more contextual factors that were found in this research and highlighted in the literature. When looking outside the bounds of Chantry's model and producing etic codes from the interview data, two additional factors affecting engagement quality became clear: official attitudes—of developers, assessors and local authorities—to engagement and engagement timing, both of which impacted the quality of public participation across different projects. Almost all projects implied the importance of official attitudes in some way, but the most obvious stakeholder influence was the developer, with all Assessors implying the significance of their influence. Three Assessors explicitly identified the importance of the local authority, whilst only Assessor 2 identified the importance of assessor attitudes. Regarding engagement timing, six Assessors discussed the timing of engagement activity when describing participation in their project, but only two Assessors identified this as a key determinant of public participation quality.

4.3.1 Developer attitudes

Open-minded developers, with a genuine interest in delivering sustainability, were salient to the success of public participation (Assessor 3), while other developers treated the certification as a tick-box exercise so citizens' thoughts would not be comprehensively taken into account and engagements would be rushed (Assessor 4). Assessor 2 builds on this point, suggesting that developers can sometimes try to reduce the length of consultation to make it easier to sell the development:

“they may or may not want to do a more extensive consultation exercise [because] they don't want to stir up too much enthusiasm locally, in case they raise expectations and start being asked for things that they feel will make it too difficult to sell the site on to volume home builders”

Equally, developers who had a long-term stake in the land they were developing were more likely to treat the public engagement elements with sincerity, as they had a vested interest in keeping the local community happy (Assessor 2).

4.3.2 Assessor attitudes

Both the assessor and developer engage in a 'negotiation' at the start of the BREEAM Communities process, whereby they agree on the credits to go for and those to ignore (Assessor 1). As such, the assessor can influence the extent to

which developers conduct public engagement; if they have a sufficient level of knowledge, they would be able to recommend consultation techniques that produce high-quality engagement. The interviewee with the most certified projects believed that assessors are not pushing developers hard enough (Assessor 2). When developers submit public consultation plans, they should push back by saying: 'I don't think it's broad enough', 'I don't think you've considered these groups' or 'I don't think you've identified the sorts of places where you're going to get the right kind of feedback from' (Assessor 2). The same interviewee reported how they could influence the action taken on a public concern when the developer was vague about bus provision:

"I think they were saying you know a bus could be provided...you have to say a bus will be provided, it is being provided... it's got to be definite because if it's not definite it's likely to be...dropped...you've got the volume home builders coming in and if they can get out of doing something they'll get out of doing something" (Assessor 2).

4.3.3 Local authority attitudes

Many of the certified projects were completed under the jurisdiction of Eastleigh Borough Council, with ten out of 28 certified projects in the county of Hampshire. Eastleigh made BREEAM Communities a planning requirement for all major developments (Assessor 2, 5). Bristol also made BREEAM Communities a planning requirement, however, on multiple occasions the local authority deemed BREEAM Communities too arduous to complete for a medium-sized development, so they dropped it (Assessor 6). Therefore, even if BREEAM Communities is recommended in planning requirements, its application or lack thereof can rely on the local authority's discretion on a project-by-project basis. As a result, any engagement standards upheld by BREEAM Communities are liable to slip.

A granular exploration of the relationship between all stakeholder attitudes, discourse production and proposal implementation (the political spaces not assessed in this project) would be a valuable avenue for future research considering the identification above that these stakeholders hold a strong influence over public participation outputs.

4.3.4 Engagement timing

Timing is an important factor that affects the quality of public engagement [27]. Whilst BREEAM Communities provides a guideline for sustainable developments, all projects are also required to go through the planning process, which has its own requirements and timelines. BREEAM Communities is flexible as to the time at which public consultation should take place. Indeed, some assessors reported consultation processes happening before planning permission was granted (Assessor 4, 6) whilst others reported this occurring after (Assessor 1, 3, 7, 8). One interviewee reported how a developer commenced consultation very early in the design process, viewed as a key reason for the success of the process (Assessor 4), while another commented on how conducting public consultation post-planning permission presented problems, as *'the developer might agree with something the citizens have said and if they take it to planning, because they have to make changes to something, the planners might not agree with it'* (Assessor 1). Overall, it seems that introducing public consultation late in the development process reduces the quality and outcomes of engagement in BREEAM Communities-assessed projects, which compliments findings elsewhere [49].

5 Extending the Chantry heuristic

The analysis above has implications for how public consultation in BREEAM Communities, specifically, and sustainability certification schemes, more generally, are conceptualised and applied, adding to wider debates on public engagement in planning and built environment processes. Chantry's heuristic has provided a conceptual and analytical starting point for discussing public participation in BREEAM Communities processes, by looking at political spaces of citizen engagement which are each intrinsic to determining the extent and quality of public consultation [14]. It has been instrumental in highlighting political spaces that BREEAM Communities facilitates well, and those which were less well dealt with, across a representative pool of projects. For example, the heuristic identified that BREEAM Communities ensures that citizen selection is above minimum practice: self-selection, +2, being the minimum requirement for BREEAM Communities compliance. Contrastingly, the framework highlighted that the space of deliberation was rather less protected by BREEAM Communities, as developers were able to conduct engagement methods that provided minimal space for deliberation

(via methods like letter drops and feedback questionnaires), while discourse production and proposal implementation were unable to be mapped onto Chantry's framework due to project finalisation and documentation constraints.

However, additional factors that influence the quality of engagement have emerged during this analysis: *official attitudes to and timing of public consultation*, also noted by the literature on public engagement [24–27]. These add to Chantry's distinct 'political spaces' that bear influence at the start of the engagement process [14]. Engagement timing has been added to the heuristic (see Fig. 3), as the first political space, representing how the decision on when to engage happens before engagement activity has commenced. The lowest score is received for all engagements occurring after planning permission has been granted. Meanwhile, the highest score describes engagement that commences before planning permission and continues throughout the planning process. This addition aligns with Oliver and Pearl's findings that engagement conducted too late in the development process reduces the potential for the public's input [49]. The attitudes of 'officials' such as developers, assessors or local authorities is also added to the heuristic as a political space, reflective of how such attitudes can have an overarching impact on subsequent spaces such as citizen selection, information provision, deliberation and so forth. A low score for this political space describes officials who have a tick-box approach to engagement; an average score describes where some officials are keen to employ good-quality engagement. This might be a local authority, like Eastleigh, setting BREEAM Communities as a planning requirement, for example. A high score reflects a situation where all officials are determined to include the community voice in a wholesome way. This new political space better represents ideas promoted by Hansen and Falleth that stakeholders have important responsibilities, possessing the power to frame consultations to encourage 'extended self-interests' [27].

Two further adjustments are proposed to the heuristic in light of findings from the projects analysed in this research. A new political sub-space of *deliberation* is added to the heuristic; this assesses the extent to which citizens can deliberate with a range of stakeholders, including other citizens, developers and industry experts. Multiple assessors highlighted that the opportunity to converse with others, especially industry experts who might be able to help articulate a citizen's point clearly, was important (Assessor 1; Assessor 6; Assessor 8). This also aligns with Pretty's typology of participation and wider literature [17–19], which emphasizes the importance of collaboration and therefore the deliberative elements of engagement [52].

The *citizen selection* political space has also been further refined to acknowledge the difference between *self-selection* (+ 2) with potential 'usual suspects' outcomes, and *stakeholder selection* (+ 3) whereby a stakeholder actively attempts to incorporate diverse voices. The + 4 box has also been edited to reflect the view highlighted by Assessor 2, that proactively seeking citizens in their local spaces is a progressive form of citizen selection. This replaces 'selection by external administrator', which was deemed unnecessary due to the presence of 'random or demographically proportional selection' in the + 5 box, a more progressive form of selection than merely by an external administrator. These changes to citizen selection not only utilise findings in this research, they also better reflect Erikssen et al.'s findings that already privileged voices continue to be privileged in participation if passive selection techniques are applied [25]. The extended Chantry heuristic (Chantry.02) together with all changes discussed above are illustrated in Fig. 3.

Overall, the paper finds that BREEAM Communities has limited success in facilitating high-quality public engagement. Indeed, there are strong requirements for engagement design, proposal formation and proposal implementation; and such aspects have performed better on Chantry's heuristic [14]. However, BREEAM Communities is less effective at facilitating good-quality citizen selection, information provision and deliberation, as well as addressing timing and official attitudes; and has little consideration for discourse production, with no specific requirements in the manual to ensure public agency over discourse. Criteria relating to proposal implementation appear at least somewhat empowering for the public, but further research is needed to determine whether this is the case in reality.

Citizen selection is generally covered by the BREEAM Communities manual and requires developers to show how marginalised groups would be contacted and included. However, it could be indicated further how to bring the consultation to the public by, for example, hosting events at a local youth centre, park or public facility. *Information provision* receives little attention in the BREEAM Communities technical manual, with the only reference to the use of jargon which should be 'avoided for the consultation exercise' in Compliance Note 4 of GO 01 Consultation Plan [46]—this can be strengthened by requiring that the public is given detailed information about the project; such information should be provided by expert but independent advisors and illustrated with good practice examples from similar projects. *Deliberation* is even less unpacked in the BREEAM Communities technical manual—to address such limitation, the manual could stipulate that extensive deliberation should be included in at least one participation technique, whereby citizens can converse with each other as well as industry experts, developers and local authority officials at the same time. *Discourse production* currently sits outside the BREEAM Communities assessment process and more research is required to determine the output of proposal implementation requirements. This should be incorporated into any further research.

Furthermore, the BREEAM Communities guidance does not include any stipulation on *timing of engagement*; the certification should require that at least part of the public consultation occurs before planning permission is granted; and be explicit that the earlier the public is consulted the better the final outcomes are. To ensure more positive *official attitudes* towards public consultation but also a better understanding of discourse production and proposal implementation, BREEAM Communities assessors can be trained to be aware of the different good-practice techniques in public engagement and of the importance of information provision, deliberation, discourse production and proposal implementation in such engagement. They can then pass on this expertise to other stakeholders, including developers and the local authority. Figure 4 shows how the suggestions above can enhance the quality of public participation in BREEAM Communities certification. As seen, citizen selection, information provision and deliberation can be strengthened, ensuring that public participation receives at least three out of five points in these political spaces.

Whilst the data presented in this paper provides a valuable insight into public participation and BREEAM Communities whilst facilitating the critique of Chantry's heuristic, further research could be conducted to strengthen insights. Most BREEAM Communities projects were only assessed by one sustainability consultant, but triangulation of project assessments against Chantry's heuristic with more individuals would have reinforced the reliability of scores. For this reason, the ranking of projects in Fig. 2 has been kept as 'indicative'. Future research could look to interview other stakeholders in the participation process, such as local authority representatives. Triangulation via document analysis of specific participation activity records would also provide this reinforcement, although issues of public accessibility remain.

Two political spaces, discourse production and proposal implementation, were unable to be fully assessed in this research due to document access and project timeline constraints. This does not mean that the political spaces did not exist for these projects; as demonstrated in section four, there was evidence of proposal implementation at Battersea Power Station. Rather, these political spaces are harder to access for analysis as relevant evidence is often scattered in multiple locations and formats, and it is not always publicly available. The more elusive nature of these political spaces provides further justification for future research, as they are currently less well-understood yet arguably just as important facets for public participation quality. This type of research would warrant a granular approach, to ensure that the appropriate volume of evidence could be included. Further research using this framework in a different context may find different political spaces, or confirm these findings in identifying the nine political spaces below. In particular, the concept of transparency has been highlighted in the literature (27, 31–32) and in future research this could be identified as a unique political space, or perhaps something that can be embedded across existing political spaces. This paper has successfully furthered the international reach of Chantry's heuristic, testing a Canadian-conceived framework in an English context, but further investigations into the international relevance of the framework would be welcomed in future scholarship.

Sustainability certification schemes have been found to provide somewhat of a one-size-fits-all approach, failing to adapt to the specific dynamics of local populations [11, 42]. However, this is not to say that the findings in this paper do not have international relevance and transferability. BREEAM Communities is the only certification scheme at the neighbourhood scale that has an 'international' version [11], and whilst the manual for each global project is adapted and approved by the BRE on a case-by-case basis, it is likely that the general principles underpinning participation requirements will be similar to those analysed in this paper. So far, BREEAM Communities projects have been completed in places as diverse as Oman, Norway and Poland [61].

Regarding participation more generally, as has been argued before [9], the core values of participation should be maintained across geographies whilst respecting local traditions and cultures. Specifically, principles like inclusivity, diversity and public agency have been shown as important indicators of good-quality engagement across the globe [57]. This paper reinforces these claims, whilst also highlighting that information provision and deliberation are vital aspects of the participation process in which these issues need to be considered, as *who delivers relevant information to participants* and *how the discussions are facilitated* has a lasting impact on the overall agency, inclusivity and outcomes of the participation process.

6 Conclusion

This paper has aimed to explore how the BREEAM Communities certification incorporates public participation. BREEAM Communities was found to have mixed success at facilitating high-quality public participation in 12 developments, assessed by eight assessors, and employing Chantry's political spaces of citizen engagement framework [14]. It found that BREEAM Communities is effective in facilitating relatively high-quality *proposal formation* and *proposal implementation*. The public was often able to give their suggestions about a project and developers were forced to justify why

Fig. 3 An extended Chantry heuristic: nine political spaces of citizen engagement

Engagement timing	+1 <i>Public consultation occurs after planning permission is granted</i>	+2 <i>Public consultation occurs after Outline Planning Application is submitted</i>	+3 <i>Public consultation is paired up with the outline planning application.</i>	+4 <i>Public consultations commence when a draft masterplan is ready.</i>	+5 <i>Stakeholders initiate preparations for public consultations well before starting the development of the masterplan proposals</i>
Official attitudes to engagement	+1 <i>Most stakeholders see public consultation as a tick-box exercise</i>	+2 <i>Some stakeholders are keen to gain community sentiments/ideas</i>	+3 <i>Some stakeholders are keen to gain community sentiments and suggest methods to do so effectively</i>	+4 <i>Stakeholders agree a strict and inclusive criteria for public consultation</i>	+5 <i>All stakeholders have well-established tradition of engagement and work together with local communities.</i>
Citizen selection	+1 <i>Selection by stakeholder, no attempt to attract diversity</i>	+2 <i>Citizen self-selection</i>	+3 <i>Selection by stakeholder or external administrator with attempts made to incorporate diverse voices</i>	+4 <i>Proactive inclusion of citizens via engagement at local public places</i>	+5 <i>Random or demographically proportional selection</i>
Design of engagement content	+1 <i>Designed exclusively by the stakeholder</i>	+2 <i>Designed by stakeholder and independent administrators</i>	+3 <i>Designed by independent administrators</i>	+4 <i>Designed by independent administrators, citizens consulted</i>	+5 <i>Design heavily influenced by citizens</i>
Information provision	+1 <i>Information provided exclusively by the stakeholder</i>	+2 <i>Mostly provided by stakeholder, some provided independently</i>	+3 <i>Mostly provided independently, some provided by stakeholder</i>	+4 <i>Provided exclusively by independent administrators</i>	+5 <i>Provided by independent administrators and citizens</i>
	+1 <i>Minimal time given to information provision</i>	+2 <i>Limited time given to information provision</i>	+3 <i>Considerable time given to information provision</i>	+4 <i>Substantial time given to information provision</i>	+5 <i>Extensive time given to information provision</i>
Deliberation	+1 <i>Minimal time/space given to deliberate</i>	+2 <i>Limited time/space given to deliberate</i>	+3 <i>Considerable time/space given to deliberate</i>	+4 <i>Significant time/space given to deliberate</i>	+5 <i>Extensive time/space given to deliberate</i>
	+1 <i>No fellow stakeholders present, citizens unable to discuss with others</i>	+2 <i>Citizens can discuss with other citizens, no developer present</i>	+3 <i>Citizens can discuss with other citizens and few stakeholders present</i>	+4 <i>Citizens can discuss with other citizens and multiple stakeholders</i>	+5 <i>Citizens can discuss with other citizens, multiple stakeholders and industry experts</i>
Proposal formation	+1 <i>Citizens are participants, learners. No active input.</i>	+2 <i>Citizens are feedback-givers to specific ideas</i>	+3 <i>Citizens are vision-makers- no concrete proposals made</i>	+4 <i>Citizens give proposals responding to specific prompts</i>	+5 <i>Citizens autonomously give detailed proposals</i>
Discourse production	+1 <i>Discourse exclusively produced by stakeholder</i>	+2 <i>Discourse produced by external administrators with the stakeholder</i>	+3 <i>Discourse produced by stakeholder and citizens</i>	+4 <i>Discourse produced by external administrators</i>	+5 <i>Discourse produced by the external administrators and/or citizens</i>
Proposal implementation	x0 <i>No citizen proposals are implemented, citizens are ignored</i>	x1 <i>Citizen proposals largely ignored, few proposals indirectly influence policy</i>	x2 <i>Some citizen proposals indirectly influence decisions, few original proposals are implemented</i>	x3 <i>Multiple original proposals are implemented, choices made by the stakeholder</i>	x4 <i>Most original proposals are implemented, citizens vote on which to administer</i>

Engagement timing	+1 <i>Public consultation occurs after planning permission is granted</i>	+2 <i>Public consultation occurs after Outline Planning Application is submitted</i>	+3 <i>Public consultation is paired up with the outline planning application.</i>	+4 <i>Public consultations commence when a draft masterplan is ready.</i>	+5 <i>Stakeholders initiate preparations for public consultations well before starting the development of the masterplan proposals</i>
Official attitudes to engagement	+1 <i>Most stakeholders see public consultation as a tick-box exercise</i>	+2 <i>Some stakeholders are keen to gain community sentiments/ideas</i>	+3 <i>Some stakeholders are keen to gain community sentiments and suggest methods to do so effectively</i>	+4 <i>Stakeholders agree a strict and inclusive criteria for public consultation</i>	+5 <i>All stakeholders have well-established tradition of engagement and work together with local communities.</i>
Citizen selection	+1 <i>Selection by stakeholder, no attempt to attract diversity</i>	+2 <i>Citizen self-selection</i>	+3 <i>Selection by stakeholder or external administrator with attempts made to incorporate diverse voices</i>	+4 <i>Proactive inclusion of citizens via engagement at local public places</i>	+5 <i>Random or demographically proportional selection</i>
Design of engagement content	+1 <i>Designed exclusively by the stakeholder</i>	+2 <i>Designed by stakeholder and independent administrators</i>	+3 <i>Designed by independent administrators</i>	+4 <i>Designed by independent administrators, citizens consulted</i>	+5 <i>Design heavily influenced by citizens</i>
Information provision	+1 <i>Information provided exclusively by the stakeholder</i>	+2 <i>Mostly provided by stakeholder, some provided independently</i>	+3 <i>Mostly provided independently, some provided by stakeholder</i>	+4 <i>Provided exclusively by independent administrators</i>	+5 <i>Provided by independent administrators and citizens</i>
	+1 <i>Minimal time given to information provision</i>	+2 <i>Limited time given to information provision</i>	+3 <i>Considerable time given to information provision</i>	+4 <i>Substantial time given to information provision</i>	+5 <i>Extensive time given to information provision</i>
Deliberation	+1 <i>Minimal time/space given to deliberate</i>	+2 <i>Limited time/space given to deliberate</i>	+3 <i>Considerable time/space given to deliberate</i>	+4 <i>Significant time/space given to deliberate</i>	+5 <i>Extensive time/space given to deliberate</i>
	+1 <i>No fellow stakeholders present, citizens unable to discuss with others</i>	+2 <i>Citizens can discuss with other citizens, no developer present</i>	+3 <i>Citizens can discuss with other citizens and few stakeholders present</i>	+4 <i>Citizens can discuss with other citizens and multiple stakeholders</i>	+5 <i>Citizens can discuss with other citizens, multiple stakeholders and industry experts</i>
Proposal formation	+1 <i>Citizens are participants, learners. No active input.</i>	+2 <i>Citizens are feedback-givers to specific ideas</i>	+3 <i>Citizens are vision-makers- no concrete proposals made</i>	+4 <i>Citizens give proposals responding to specific prompts</i>	+5 <i>Citizens autonomously give detailed proposals</i>

Fig. 4 The extended Chantry heuristic (Chantry.02) showing the levels of quality assurance that would be offered to each political space by the recommendations for BREEAM Communities

Discourse production	+1 Discourse exclusively produced by stakeholder	+2 Discourse produced by external administrators with the stakeholder	+3 Discourse produced by stakeholder and citizens	+4 Discourse produced by external administrators	+5 Discourse produced by the external administrators and/or citizens
Proposal implementation	x0 No citizen proposals are implemented, citizens are ignored	x1 Citizen proposals largely ignored, few proposals indirectly influence policy	x2 Some citizen proposals indirectly influence decisions, few original proposals are implemented	x3 Multiple original proposals are implemented, choices made by the stakeholder	x4 Most original proposals are implemented, citizens vote on which to administer
<p>Key</p> <p><i>Italics:</i> new additions to the heuristic</p> <p> : levels of citizen engagement that BREEAM Communities would mitigate against given recommendations in this paper</p> <p> : levels of citizen engagement that BREEAM Communities would permit given recommendations in this paper</p>					

Fig. 4 (continued)

the public's suggestions had or had not been implemented. Meanwhile, the political spaces of *information provision* and *deliberation* performed particularly poorly, indicating that current BREEAM Communities certification does not do enough to facilitate them.

The paper also sheds light on two new political spaces of public participation, important to its quality, which are specific to BREEAM Communities and additional to Chantry's heuristic [14]. It is found that *official attitudes* to engagement are an important determinant of effective public participation: if stakeholders are less motivated to engage citizens, engagement quality will suffer as a result. Another identified factor is the *timing* of the engagement process: if planning permission was already granted it was found to be harder for citizens' ideas to be embedded into project plans. Both factors are incorporated into an updated and extended version of the Chantry heuristic as distinct political spaces, which is tailored to the 'context' of public participation in BREEAM Communities certification processes.

To enhance the efficiency of public participation mechanisms and processes in BREEAM Communities the following recommendations are made. First it is suggested that an explicit requirement for extensive and impartial provision of information is inserted into the compliance notes and technical manual. Second, that a similar stipulation for extensive, multi-stakeholder deliberation is included. Third, to insert a requirement to have at least one event 'brought' to citizens, instead of requiring them to actively attend. It is also recommended that assessor training emphasizes and unpacks their role as negotiators with developers, in addition to teaching them more about how to facilitate high-quality public participation processes. All these additional recommendations may increase the time and financial cost of BREEAM Communities for developers. To mitigate against this, and as suggested by our interviewees, local authorities may aim to make BREEAM Communities certification a compulsory requirement in their planning policies, hence prompting developers to consider public participation and BREEAM Communities more seriously and incorporate certification costs from the outset (Assessor 1; Assessor 2; Assessor 5). This would make BREEAM Communities a more useful tool, ensuring that the public is empowered to participate in creating and delivering sustainable urban development from an informed perspective.

Broader lessons from this paper can be directly relevant to an international audience. Both BREEAM Communities and Chantry's heuristic are structured frameworks for public participation, and despite their limitations of rigidity, both can provide baselines for evaluating and building public participation programmes globally. Particularly in Chantry's heuristic, there is a certain degree of flexibility built into the framework, with no requirement or assessment of specific participation techniques used to achieve good quality engagement in each of the political spaces. Yet importantly, the framework still provides a standardised method to compare different participation programmes. This makes it a valuable

reference point by which to assess programmes in different local contexts. In developing countries and emerging economies, using these frameworks also has a capacity building role where public participation in planning processes may still be evolving [62]. It is vital to test Chantry's heuristic (and now Chantry 0.02) in real projects to ensure the ever more effective capture of participation's complexity and richness. Therefore, further use and research into the international compatibility of the framework would be welcomed.

Beyond BREEAM Communities and Chantry's heuristic, it has been highlighted how output-focused facets of public participation, namely the proposal formation and implementation political spaces, can receive more attention than the inputs, such as information provision and deliberation; as demonstrated by Chantry's heuristic, this subsequently limits the quality of the outputs. We therefore call on practitioners internationally to consider these early-stage 'political spaces' more seriously when designing high-quality participation programmes that aim to empower and include the public voice.

Acknowledgements Thanks to Catalina for her guidance and collaboration throughout the research process. Thank you to my friends and family for their constant support, and finally thank you to Chiara—you inspire me.

Author contribution WC came up with the research concept, design and produced the first iteration unaided. CT then made substantial contributions via re-drafting and editing sections of the paper. Both authors reviewed and edited the manuscript heavily and both agree to be accountable for all aspects of the work.

Data availability Primary data (anonymised interview transcripts) has been provided as supplementary information to this manuscript. All other data used in this research is publicly available online here: <https://www.greenbooklive.com/>.

Declarations

Competing interests The authors declare no competing interests.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

References

1. Davidoff P. Advocacy and pluralism in planning. *J Am Inst Plann.* 1965;31:331–8. <https://doi.org/10.1080/01944366508978187>.
2. Kamaci E. A novel discussion on urban planning practice: citizen participation. *ICONARP Int J Arch Plan.* 2014;2:1–19.
3. Innes JE, Booher DE. Reframing public participation: strategies for the 21st century. *Plan Theory Pract.* 2004;5:419–36. <https://doi.org/10.1080/1464935042000293170>.
4. Evans-Cowley J, Hollander J. The new generation of public participation: Internet-based participation tools. *Plan Pract Res.* 2010;25:397–408. <https://doi.org/10.1080/02697459.2010.503432>.
5. Radil SM, Anderson MB. Rethinking PGIS: Participatory or (post) political GIS? *Prog Hum Geogr.* 2019;43:195–213. <https://doi.org/10.1177/0309132517750774>.
6. Turcu C. Responsibility for sustainable development in Europe: what does it mean for planning theory and practice? *Plan Theory Pract.* 2018;19:385–404. <https://doi.org/10.1080/14649357.2018.1478116>.
7. Turcu C. Sustainability indicators and certification schemes for the built environment. *Routledge Handbook of Sustainability Indicators:* Routledge; 2018.
8. Sharifi A, Murayama A. Neighborhood sustainability assessment in action: cross-evaluation of three assessment systems and their cases from the US, the UK, and Japan. *Build Environ.* 2014;72:243–58. <https://doi.org/10.1016/j.buildenv.2013.11.006>.
9. Sharifi A, Murayama A. Viability of using global standards for neighbourhood sustainability assessment: insights from a comparative case study. *J Environ Plan Manage.* 2015;58:1–23. <https://doi.org/10.1080/09640568.2013.866077>.
10. Kaur H, Garg P. Urban sustainability assessment tools: a review. *J Clean Prod.* 2019;210:146–58. <https://doi.org/10.1016/j.jclepro.2018.11.009>.
11. Ameen RFM, Mourshed M, Li H. A critical review of environmental assessment tools for sustainable urban design. *Environ Impact Assess Rev.* 2015;55:110–25. <https://doi.org/10.1016/j.ear.2015.07.006>.
12. Innes JE, Booher DE. Reframing public participation: strategies for the 21st century. *Plan Theory Pract.* 2004;5(4):419–36. <https://doi.org/10.1080/1464935042000293170>.
13. Rydin Y, Pennington M. Public participation and local environmental planning: the collective action problem and the potential of social capital. *Local Environ.* 2000;5(2):153–69. <https://doi.org/10.1080/13549830050009328>.

14. Chantry W. 'Built from the internet up': assessing citizen participation in smart city planning through the case study of Quayside. *Toronto GeoJournal*. 2023;88:1619–37. <https://doi.org/10.1007/s10708-022-10688-3>.
15. Turcu C. *Planning for sustainable development in the UK*. UK: Routledge; 2018.
16. Friedmann J. The transactive style of planning. *Retracking America: A theory of transactive planning*. 1973; 171–193.
17. Habermas J. *The theory of communicative action: Volume 1: Reason and the rationalization of society*, Beacon Press; 1985.
18. Healey P. Collaborative planning in a stakeholder society. *The Town Planning Review*. 1998; 1–21; <https://www.jstor.org/stable/40113774>
19. Healey P. *Collaborative Planning: Shaping Places in Fragmented Societies*. London: Macmillan; 1997.
20. Rydin Y. *Theory in planning research*, Springer; 2021.
21. Purcell M. Resisting neoliberalization: communicative planning or counter-hegemonic movements? *Plan Theory*. 2009;8:140–65. <https://doi.org/10.1177/1473095209102232>.
22. Parvin P. Democracy without participation: a new politics for a disengaged era. *Res Publica*. 2018;24:31–52. <https://doi.org/10.1007/s11158-017-9382-1>.
23. Hillier J. Agonizing over consensus: why habermasian ideals cannot be Real! *Plan Theory*. 2003;2:37–59. <https://doi.org/10.1177/1473095203002001005>.
24. Callahan K. Citizen participation: models and methods. *Int J Public Adm*. 2007;30:1179–96. <https://doi.org/10.1080/01900690701225366>.
25. Eriksson E, Fredriksson A, Syssner J. Opening the black box of participatory planning: a study of how planners handle citizens' input. *Eur Plan Stud*. 2022;30:994–1012. <https://doi.org/10.1080/09654313.2021.1895974>.
26. McCann EJ. Collaborative visioning or urban planning as therapy? The politics of public-private policy making. *Prof Geogr*. 2001;53:207–18. <https://doi.org/10.1111/0033-0124.00280>.
27. Hanssen GS, Falleth EI. Market-oriented urban planning—constraining citizen participation. *Local Gov Stud*. 2014;40:403–28. <https://doi.org/10.1080/03003930.2013.834254>.
28. Rydin Y, Turcu C. Revisiting urban energy initiatives in the UK: declining local capacity in a shifting policy context. *Energy Policy*. 2019;129:653–60. <https://doi.org/10.1016/j.enpol.2019.02.054>.
29. Beierle TC, Konisky DM. Values, conflict, and trust in participatory environmental planning. *J Policy Anal Manage*. 2000;19(4):587–602. [https://doi.org/10.1002/1520-6688\(200023\)19:4%3c587::AID-PAM4%3e3.0.CO;2-Q](https://doi.org/10.1002/1520-6688(200023)19:4%3c587::AID-PAM4%3e3.0.CO;2-Q).
30. Agyeman J, Evans T. Just sustainability: the emerging discourse of environmental justice in Britain? *Geogr J*. 2004;170(2):155–64. <https://doi.org/10.1111/j.0016-7398.2004.00117.x>.
31. Cooke B, Kothari U, editors. *Participation: The New Tyranny?* London: Zed Books; 2001.
32. Walker PA, Hurley PT. Collaboration derailed: the politics of "community-based" resource management in Nevada county. *Soc Nat Resour*. 2004;17(8):735–51. <https://doi.org/10.1080/08941920490480723>.
33. Toukola S, Ahola T. Digital tools for stakeholder participation in urban development projects. *Project Leadership Soc*. 2022;3:100053. <https://doi.org/10.1016/j.plas.2022.100053>.
34. Nadin V, Stead D, Dabrowski M, Fernandez-Maldonado AM. Integrated, adaptive and participatory spatial planning: Trends across Europe. *Reg Stud*. 2021;55:791–803. <https://doi.org/10.1080/00343404.2020.1817363>.
35. Turcu L, Andres L. Fast, smart and beautiful—but how green, sustainable and resilient? *Town Country Plan J*. 2021;90:29–33.
36. Turcu C. Re-thinking sustainability indicators: local perspectives of urban sustainability. *J Environ Plan Manage*. 2013;56:695–719. <https://doi.org/10.1080/09640568.2012.698984>.
37. Dianati V, Turcu C. Place (un) making through soft urban densification: exploring local experiences of density and place attachment in Tehran. *Int J Urban Sustain Dev*. 2023;15:63–79. <https://doi.org/10.1080/19463138.2023.2184825>.
38. Sullivan L, Rydin Y, Buchanan C. Neighbourhood sustainability frameworks- a literature review. *Centre for Urban Sustainability and Resilience (UCL)*. 2014.
39. Addae-Dapaah K, Chieh SJ. Green mark certification: does the market understand? *J Sustain Real Estate*. 2011;3:162–91. <https://doi.org/10.1080/10835547.2011.12091828>.
40. Newsham GR, Mancini S, Birt BJ. Do LEED-certified buildings save energy? Yes, but... *Energy Build*. 2009;41(8):897–905. <https://doi.org/10.1016/j.enbuild.2009.03.014>.
41. Lee WL, Kim J. Market-driven sustainable buildings: case study of green building certification systems. *Energy Policy*. 2008;36(8):2948–55.
42. Faulconbridge J. Mobilising sustainable building assessment models: agents, strategies and local effects. *Area*. 2015;47:116–23. <https://doi.org/10.1111/area.12148>.
43. Retzlaff RC. Green buildings and building assessment systems: a new area of interest for planners. *J Plan Lit*. 2009;24:3–21. <https://doi.org/10.1177/0885412209349589>.
44. Lee WL. Benchmarking energy use of building environmental assessment schemes. *Energy Build*. 2012;45:326–34. <https://doi.org/10.1016/j.enbuild.2011.11.024>.
45. Spinks M. Understanding and actioning BRE environmental assessment method: a socio-technical approach. *Local Environ*. 2015;20:131–48. <https://doi.org/10.1080/13549839.2013.838212>.
46. BRE. *BREEAM Communities Technical Manual*. Watford, UK: British Research Establishment (BRE); 2012.
47. Komeily A, Srinivasan RSA. need for balanced approach to neighborhood sustainability assessments: a critical review and analysis. *Sustain Cities Soc*. 2015;18:32–43. <https://doi.org/10.1016/j.scs.2015.05.004>.
48. Sharifi A, Murayama AA. critical review of seven selected neighborhood sustainability assessment tools. *Environ Impact Assess Rev*. 2013;38:73–87. <https://doi.org/10.1016/j.eiar.2012.06.006>.
49. Oliver A, Pearl DS. Rethinking sustainability frameworks in neighbourhood projects: a process-based approach. *Building Research & Information*. 2018;46:513–27. <https://doi.org/10.1080/09613218.2017.1358569>.
50. Arnstein SR. A ladder of citizen participation. *J Am Inst Plann*. 1969;35:216–24. <https://doi.org/10.1080/01944366908977225>.
51. Hart RA. Children's participation: From tokenism to citizenship. *Papers inness92/6*, Innocenti Essay; 1992.
52. Pretty JN. Participatory learning for sustainable agriculture. *World Dev*. 1995;23:1247–63. [https://doi.org/10.1016/0305-750X\(95\)00046-F](https://doi.org/10.1016/0305-750X(95)00046-F).
53. Treseder P. *Empowering Children and Young People: Training Manual*; Children's Rights Office: London, UK; 1997.

54. Shier H. Pathways to participation: Openings, opportunities and obligations. *Child Soc.* 2001;15:107–17. <https://doi.org/10.1002/chi.617>.
55. White SC. Depoliticising development: the uses and abuses of participation. *Dev Pract.* 1996;6:6–15. <https://doi.org/10.1080/0961452961000157564>.
56. Badham B, Davies T. The active involvement of young people. In: Harrison R, Benjamin S, Curran S, Hunter R, editors. *Leading Work with Young People*. London: SAGE Publications; 2007. p. 80–96.
57. Reed MS, Vella S, Challies E, de Vente J, Frewer L, Hohenwallner-Ries D, et al. A theory of participation: what makes stakeholder and public engagement in environmental management work? *Restoration Ecol.* 2017;25:1. <https://doi.org/10.1111/rec.12541>.
58. BRE. GreenBookLive. British Research Establishment (BRE). 2023; <https://www.greenbooklive.com/> Accessed: 9 Sept 2023.
59. Paulus TM, Lester JN. ATLAS ti for conversation and discourse analysis studies. *Int J Soc Res Methodol.* 2016;19:405–28. <https://doi.org/10.1080/13645579.2015.1021949>.
60. Glaser BG. Open coding descriptions. *Grounded Theory Rev.* 2016;15:108–10.
61. BRE. GreenBook Live: Certified BREEAM Assessments. 2015. <https://www.greenbooklive.com/search/buildingsearch.jsp?id=202§id=0&partid=10023&projectType=Communities&certNo=&productName=&companyName=&developer=&buildingRating=&certBody=&assessorAuditor=&addressPostcode=&countryId=0&postcode=&scale=7.5>. Accessed: 9 Sept 2023.
62. Brownill S, Parker G. Why bother with good works? The relevance of public participation(s) in planning in a post-collaborative era. *Plan Pract Res.* 2017;32(4):386–400. <https://doi.org/10.1080/02697459.2010.503407>.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.