EUB
SuperHub

European Building Sustainability performance and energy certification Hub

D4.3 – Principles and guidelines for public engagement and education

This project has received funding from the European Union's H2020 research and innovation programme under Grant Agreement No. 101033916.

Project no. 101033916

Project acronym: EUB SuperHub

Project title: European Building Sustainability performance and energy certification Hub

Call: H2020-LC-SC3-B4E-4-2020

Start date of project: 01.06.2021.

Duration: 43 months

Deliverable title: D4.3 – Principles and guidelines for public engagement and education

Due date of deliverable: 31. July 2024

Organisation name of lead contractor for this deliverable: University College Cork – National University of Ireland, Cork (*PARTNER NUMBER 9*)

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Dissemination level		
PU	Public	PU

Document History

History			
Version	Date	Reason	Revised by
01	31/07/2026	Draft	UCC
02	09/08/2024	To review	GEO
03	13/08/2024	Final	UCC

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Project partners

Partner number	Acronym	Partner name	Country	Country code
1	**GEO**	Geonardo Environmental Technologies Ltd	Hungary	HU
2	**HM**	Hochschule für angewandte Wissenschaften München	Germany	DE
3	**iiSBE**	International Initiative for a Sustainable Built Environment	Italy	IT
4	**UNI**	UNI – Ente Italiano Di Normazione	Italy	IT
5	**EIV**	Energieinstitut Vorarlberg	Austria	AT
6	**FeliCity**	Felicity-Tools Informatikai Szolgaltato Kft	Hungary	HU
7	**CaR**	Calabria Regione	Italy	IT
8	**CSTB**	Centre Scientifique et Technique du Bâtiment	France	FR
9	**UCC**	University College Cork	Ireland	IE
10	**EIHP**	Energetski institut Hrvoje Požar	Croatia	HR

Abbreviations

BER	Building Energy Rating (used in Ireland)
DAD	Decide-Announce-Defend
EE	Energy Efficiency
EEB	Energy Efficiency Buildings
EPBD	Energy Performance of Buildings Directive
EPC	Energy Performance Certificate
EPE	Education and Public engagement
MEHI	Magyar Energiahatékonysági Intézet
NGO	Non-governmental Organisation
nZEB	nearly-Zero Energy Building
PE	Public Engagement
STS	Science, Technology and Society
SUP	Single Use Plastic

Executive summary

A key goal of Work Package 4 is to engage the views and perspectives of key stakeholders and end-user communities on the project's methodology for assessment and certificate design being developed in the digital platform. Complementing this approach, effort in this work package also centres on the identification and characterisation of market actor roles and their needs across different scales of the building certification and assessment value chains. Consequently, this effort uncovers a greater understanding of the dynamics informing the public's perception and acceptance of current official, market-based energy performance certificate (EPC) programmes.

To achieve this, three complementary tasks frame the body of work undertaken to address these objectives. This deliverable is the third and final output from this effort. It presents on the work undertaken with stakeholders to establish what are the key principles to consider around public engagement and education relating to the EUB SuperHub methodology. It provides a guide on how best to communicate with key stakeholders (*e.g.*, NGOs, local people, businesses, community groups, decision-makers, and technical stakeholder groups). It utilises lessons learned from Task 4.1 and is informed by the critical review conducted in Task 4.2. This suite of complementary tasks also comprised of stakeholder surveys and in-depth interviews to develop an in-depth understanding of stakeholder perceptions and awareness in main project study areas: Austria, Croatia[1], France, Germany, Hungary, Ireland, and Italy, and supplemented by additional areas as appropriate.

This deliverable is the third of three complementary reports examining the public engagement and social acceptance of EPCs and their pertinence to the EUB SuperHub platform.

[1] Please note the reference to the Netherlands in the Description of Action (DoA) is an error and should have referred to Croatia.

1. Introduction

1.1 Background and context

Achieving sufficient energy efficiency developments to buildings across the EU necessitates significant changes in how the built environment is observed. There is a requirement to take a more holistic view of buildings, based on an in-depth understanding of societal trends and the dynamics driving the marketplace. Accordingly, energy performance assessments and certificates of buildings need to evolve to reflect the technological development and the needs of the society. Moreover, within the EU, they must be consistent throughout the Member States.

The EUB Superhub project arises from the premise that the next generation of energy performance certification should take advantage of the impending era of big data, where buildings can be observed with ever increasing levels of detail via a larger number of stakeholders, and with ever increasing amounts of available information on the operational use of buildings. The project supports the evolvement of the building certification process in the EU through the development of a scalable methodology to view, assess and monitor the buildings throughout their lifecycle. Consequently, this methodology proposes to capture some of the more complex aspects of the construction sector, such as embedded energy and related costs.

1.2 Purpose and structure of the document

The work presented in this report has been undertaken as part of a work programme devised for Work Package 4 of the EUB SuperHub project, titled '*Stakeholder involvement and social acceptance studies of EUB SuperHub*', which aims to address the following objectives:

- explore the views and opinions of end-user communities and key stakeholders on the EUB SuperHub methodology, specifically the unique assessment and certificate design to be implemented in a digital environment.
- identify and characterise the roles and needs of market actors throughout value chain(s) which deliver building- and district-level building certification and assessment.
- examine public understandings and social acceptance of the current market-based and official certificates.

This deliverable presents on the work undertaken with stakeholders to establish the key principles to consider around public engagement and education relating

to the EUB SuperHub methodology. It provides a guide on how best to communicate with key stakeholders (e.g., NGOs, local people, businesses, community groups, decision-makers, and technical stakeholder groups). It utilises lessons learned from Task 4.1 and is informed by the critical review conducted in Task 4.2. This suite of complementary tasks also comprised of stakeholder surveys and in-depth interviews to develop an in-depth understanding of stakeholder perceptions and awareness in main project study areas: Austria, Croatia[1], France, Germany, Hungary, Ireland, and Italy, and supplemented by additional areas as appropriate.

1.3 Structure of the document

This deliverable, '*Principles and guidelines for public engagement and education*', presents findings from a programme of research of mix methods comprising an in-depth review of the literature complemented by stakeholder surveys and in-depth interviews. The report is structured as follows:

1. Introduction: provides an overview of the EUB SuperHub project, including background and contextual information.
2. Methodology: details the methodological approach to data gathering as part of the project, referring to the use of surveys, interviews, and thematic analysis procedures.
3. Public Engagement Programmes: a review of public engagement, its relevance and its applicability
4. Stakeholder perspectives on public engagement around building energy: detailing the findings emerging from the stakeholder engagement
5. Principles for engaging the public around EEB & EPC

2 Methodology

2.1 Research approach

The aim of the research outlined in this report is to determine the principles and guidelines for public engagement and education about building performance certification in general, while also taking a particular focus on the EUB SuperHub methodology. This section outlines the methodology adopted for this work, and follows Crotty's (1998, 3) understanding of a research methodology which should comprise the "*strategy, plan of action, process of design lying behind the choice and use of particular methods and linking the choice and use of methods to the desired outcomes*".

The primary focus of the research is to work with stakeholders to establish principles for public engagement and education about the EUB SuperHub methodology to develop establish suitably applicable on communication with the various stakeholders, including NGOs, local people, businesses, community groups, decision-makers, and technical stakeholder groups.

Leveraging the engagements conducted in Task 4.1, and informed by effort Task 4.2, this work involved the implementation of targeted stakeholder surveys and in-depth interviews with the above highlighted cohorts to establish a better understanding of stakeholder perceptions and awareness, while also determining effective communication and public engagement strategies that can best communicate with stakeholders in developing a next generation of certificates (and assessments). This research is the third of three related tasks within a package of work exploring stakeholder involvement and social acceptance related to building certification. This work package was divided into three principal components.

- The first task involved a "*mapping of stakeholder interaction and identification of market actors' needs*" was reported in an earlier output[2]. In this work, a social constructivist epistemic view of knowledge was adopted, and a mixed methods approach to data collection and analysis was devised involving a review of literature, surveys, and in-depth interviews, coupled with a generic thematic analysis of resultant data.
- The second task comprised a desk study within which a review of literature formed the basis of knowledge generation. This literature review[3] was

[2] Dunphy, N. P., Quinlivan, L., & Lennon, B. (2023). *D4.1 – Mapping of stakeholder interaction and identification of market actors' needs.* A research output of the EUB Superhub H2020 Project.
[3] Lennon, B., Dunphy, N. P., Farea, A., & Covey, K. (2024). *D4.2 – Pragmatic and innovative approaches to public engagement and social acceptance.* A research output of the EUB Superhub H2020 Project.

informed by the surveys and interviews undertaken as part of the realisation of the other tasks within this package of work.

- The third task aims to establish principles for public engagement and education about the EUB SuperHub methodology and to develop guidance on communication and is reported on in this deliverable. The research approach in this work also took a social constructivist perspective and adopted a mixed methods methodology similar to that undertaken in the initial task.

As outlined above, the research reported in this document is one of three interlinked elements, which when taken collectively explore the social aspects of building certification. Deliverable 4.2 noted that within the science and engineering disciplines there remains somewhat of a bias towards taking methodological considerations for granted, with a majority of scientists and engineers continuing to hold a positivist perspective of the world grounded on 'fixed' facts and ordered with certain discernible laws. In this perspective, the so-called scientific method[4] (paradigmatic of objective research more generally), is considered by many as the only legitimate means of knowledge generation.

We also noted that in the social sciences, the scientific method is of course used by many. However, there is not the same hegemony of thought and other research philosophies are acknowledged as having a legitimate role. Consequently, we have applied this approach with regards to the ontological and epistemological issues key to the research design in this work package. This includes accounting for any explicit and implicit assumptions held by the research team in establishing the overall research paradigm adopted for the work (Morgan & Smircich, 1980). Therefore, the research carried out in this work package is at its core concerned with the study of social phenomena. We also agree with Charmaz's critique (2003, 83) that when adopting a deductive quantitative approach there is a tendency for the "*qualities of human experience*" *to* be simplified into to "*quantifiable variables*" that miss the point that the world is essentially a social construction and one that is subjective to observers. In acknowledging that this social construction is constantly being interpreted and (re)negotiated within groups, the role for adopting purely objectivist approaches within social sciences become less useful. We therefore draw on an anti-foundationalist ontology, which holds that (social) reality does not have an objective existence, independent of the observer (Moses & Knutsen, 2012). Accordingly, within this work package, qualitative data gathering, and analysis techniques are used to understand the perceptions, attitudes, and

[4] Weinberg (2001) observes that most scientists do not understand the scientific method, rather they just do – he compares it to someone riding a bicycle, saying "*if they think too much about it, they are likely to fall off*".

practices that coalesce along the real estate value chain as they relate to energy performance certification and building assessment.

2.2 Methods of data collection and analysis

In line with its two complementary deliverables, this report takes an *anti-foundationalist ontology*[5] and a *constructivist epistemology*[6]. As such, we acknowledge that our understanding of the world does not simply arise as a somehow natural response to phenomenon, but rather they emerge from prior theories resulting from our collective efforts to categorise, explain, and narrate our experiences. A key aim of our effort in WP4 has been to uncover the rich, thick data informants can contribute through engaging in a qualitative methodological approach, which inherently focuses on the "*qualities of entities and on processes and meanings*" (Denzin & Lincoln, 2013, p17) as a means of qualifying (*i.e.,* describing, illuminating, explaining, and/or exploring) the subject being researched (Bearman 2019). Qualitative research can have a variety of functions including providing contextual meaning to an object/phenomenon; explaining the reasons for its/their existence; evaluating the effectiveness of its/their existence; and for generating theories explaining what may exist (Ritchie *et al.*, 2013). Of these, this report engages in a combination of these functions in so far as it seeks to establish a series of principles for public engagement and education about the EUB SuperHub methodology and to develop guidance on communication of these principles.

Informed by the earlier effort in Task 4.1, the range of qualitative research methodologies used for this report are so-called generic qualitative methodologies, *i.e.*, they are "*...not guided by an explicit or established set of philosophic assumptions in the form of one of the known qualitative methodologies*" (Caelli *et al.*, 2003, 4). Rather, our primary aim is "*... to discover and understand a phenomenon, a process, or the perspectives and worldviews of the people involved*" (*Ibid.,* 3). As a result, we adopted a mixed-methods approach comprising several complementary methods for gathering and analysing the data. Consequently, we were able to capture a diversity of insights that fed into the creation of the principles in section 538 of this report. The methods and techniques used include:

- A literature review
- In-depth interviews to provide the rich, thick data; analysis of which offers valuable in-sights.

[5] Holding that (social) reality does not exist independently of the observer.
[6] Holding that the socially constructed world needs to be interpreted.

- A survey to capture perspectives and opinions from a wider cohort of stakeholders.
- A thematic analysis of the collected data to assist in establishing principles that are most appropriate to the topic.

2.2.1 Literature review

An informed understanding of the issue/subject being studied is essential to the successful implementation of any research project. This can only be achieved through a systematic engagement with the pertinent literature on the topic, comprising the collection and synthesis of previous research (Atkins & Murphy, 1993; Knopf, 2006, Brendel *et al*., 2020), allowing the researcher to test existing theories, practices, and general knowledge of the topic being examined (Webster & Watson 2002). The literature review can often be seen as a precursor or part of the initial preparation stage of a project before the 'real' research begins. However, this attitude ignores the importance a good literature review brings to a project, both in terms uncovering heretofore unseen insights and for establishing new understanding (Webster & Watson, 2002; Torraco, 2005; Reddy, 2015). Examples of current literature review guidelines vary but can include those for narrative and integrative review (*e.g*., see Baumeister & Leary 1997; Torraco 2005; Wong *et al*. 2013), and for systemic review and meta- analysis (*e.g*., see Davis *et al*. 2014; Liberati *et al*. 2009; Moher et al. 2009).

These guidelines coalesce around what Snyder (2019) identifies as three broad categories of literature review namely, the systematic, semi-systematic and integrative review; each of which offer their own means for addressing a specific research question. Given the emergence of new theoretical frameworks and perspectives often arise from integrative literature reviews (Torraco 2005)., we adopted this approach for our own effort in WP4 into understanding stakeholder interaction and market actors' needs within the real estate value chain (D4.1) and for this report into establishing the key principles to consider around public engagement and education relating to the EUB SuperHub methodology.

Since the turn of this century, we have seen a growing scholarly interest relating to the dynamics of public engagement (Sandlin et al., 2010), though Lane (2020) links the practice itself back to the polities and city states of early antiquity. While most peer-reviewed articles and books on the topic have been written within the last two decades, we did find additional important, foundational works from before this time. To ensure that our analysis was integrative, we chose sources from scholarship widely, both geographically and in terms of those disciplines engaging in the topic including, but not limited to philosophy, education, political science, sociology, public administration, psychology, and the intersecting science-

technology-society (STS) studies. The search and analysis process focused on terms associated with public engagement and education. From these, we extracted themes and multiple interpretations from the literature, organising them within a coherent framework analysis. This search was systematic using similar search terms across multiple databases including Elsevier Scopus, Google Scholar and OneSearch academic library search engine, setting the search parameters in order of relevancy, citations, date, *etc.* It was also dynamic, deploying a forward and reverse snowballing approach from references found in the bibliographies from key articles and other articles linked to these. The lessons learned from this review informed the development of the survey and interviews.

2.2.2 Interviews

The interview has long been one of the primary research tools in the social sciences, allowing the researcher to engage with rich, thick data information (Denzin & Lincoln 2013). They also allow for the analysis of spoken words, the uncovering of unique and/or detailed views and perspectives and offer a space for interviewees to express their views in the way they wish to (della Porta, 2014). They are used to capture experiences and details that cannot be captured using only quantitative methods, including the contexts for holding certain perceptions or feelings on the topic being discussed. As such, "*an interview, whose purpose is to gather descriptions of the life-world of the interviewee with respect to interpretation of the meaning of the described phenomena*" Kvale (1983, 174). While they can take on various forms, we conducted semi-structured interviews given their usefulness in research that already has a predetermined focus and for their utility for not only finding answers to the questions asked but also for opportunities to explore those answers in greater depth (Bryman & Bell, 2011). Taking the lessons learned from the activities reported in Deliverable 4.1, we developed an interview schedule in advance to guide the conversation to those areas of most relevance to the research. The objective being to understand the informant's perspective, rather than extrapolate findings to make generalisations.

As such, the interview is best understood as 'a conversation' (albeit one which has very specific goals). Given the semi-structured format and subsequent agency entrusted to the participant, questions did not always follow the precise language set down in the interview guide but rather reflected the ebb and flow of the discussion and where necessary interviewees were asked additional questions for clarification and/or to explore new points of interest as they arose (Bryman & Bell 2011). This interactivity offers a notable advantage over other methods as it provides opportunities for researchers to establish greater context and obtain more complete responses to expected and emerging topics of interest, while at the same time ensuring mutual understanding is always maintained (Dörnyei 2007).

Consequently, interviews are an effective tool for establishing a greater depth of understanding of the topic being examined, especially when the selection process for the interviewees is systematic and adheres to the research questions (Mack *et al*., 2005).

2.2.3 Surveys

Another research tool deployed for this task is the survey and were used to gather information from specific cohorts of respondents with access to the internet. Essentially, involving the "*collection of information from a sample of individuals through their responses to questions*" (Check & Schutt, 2012, 160). Typically utilised in examining human behaviour and attitudes by the social and psychological sciences (Singleton & Straits, 2009) survey work can be qualitative (*e.g.,* comprising of open-ended questions), quantitative (*i.e.,* questionnaires with closed questions that can be numerically rated) or a mixture of both (Ponto, 2015). This method has been honed over recent decades in line with advancements in information and communications technologies resulting in online surveys becoming a notable favourite amongst researchers (Schonlau *et al.* 2002), particularly with those looking to utilise the flexibility, global reach, convenience, low administration costs and easy follow-up they offer (Evans & Mathur, 2005). In addition, online survey can assist in establishing controlled samples against which one can compare and analyse results. Surveys can range from informal, 'vox-pop' style interactions to more complex, audio-visual and digital formats depending on what is required. For this research, online survey work has been deployed to collect data relating to individuals' personal relationships with energy and their building's performance, their level of knowledge of the EPC programme operating in their respective countries, in addition to their perceptions (and appreciation) of the EUB SuperHub platform.

2.2.4 Thematic analysis

Finally for this section, we wish to highlight to the reader the importance of 'making sense' of the qualitative data is not a simple process, but invariably requires the researcher to engage in an iterative process of describing, interpreting, and theorising the information gathered. This has been done through thematic analysis, which is primarily used when analysing textual data to uncover emerging themes that may be present (Forman & Damschroder, 2008) through an iterative process of structuring, coding, elucidating meaning, and theorising (Saldaña 2013; Zhang & Wildemuth 2009). While thematic analysis has much in common with another older quantitative method, content analysis (Smith 2000), its key advantage here is in allowing for the research team to incorporate those subtleties and intricacies found in participants' phenomenological experiences that would otherwise be discarded using other methods (Braun & Clarke 2006). One should

note, that while recent advances in qualitative software has seen many researchers favour assistance from software packages (over conducting the thematic analysis manually), the software does not automate the analysis. Rather it facilitates organisation and visualisation of the data which the researcher must still code, interpret and analyse. Having said that, thematic analysis is an important research method for understanding the attitudes and perceptions of people, especially for uncovering the intersecting experiences and drivers that inform these. The qualitative interview data examined for this report has been analysed using thematic analysis, following the four-stage process outlined in Deliverable 4.1.

3 Public Engagement Programmes: their relevance and applicability

3.1 Introduction

Coinciding with the shift in attitudes to public engagement has been a growing recognition of the importance around preventing, or limiting, societal opposition to strategic infrastructure projects. Such opposition has become somewhat of a hallmark of sorts in recent years and consequently attention has grown on how projects should achieve (at least some degree) of societal buy-in[7]. In should be noted that the necessary infrastructure at scale must involve some degree of just 'social acceptance' by societal actors, but this acceptance may feel imposed by some and a form of passive acquiescence by others (Dunphy *et al*., 2022). Instead, we should be looking at ways that foster greater 'social acceptability' of new technologies, certification programmes, *etc.* that foster not only the public's 'acceptance of decisions but also public acceptability within the decision-making process *i.e*., what might be described as fairness' (Dunphy & Lennon, 2020).

Education and public engagement (EPE) is another term that has become increasingly common in the communication material of governments, public agencies, and other public actors to describe the process of two-way dialogue where information is given to the public providing context and key information designed to inform their consideration on a particular issue or decision. However, while it can be easy to call for public engagement (see also dialogue) on difficult and/or challenging policy topics implementing these so that they are meaningful for stakeholders is not without its difficulties (Grogan, 2014). Indeed, engagement is not always equally practiced amongst different societal stakeholders (Head, 2007; Reed *et al*., 2018), though this is increasingly being recognised by policy makers and

[7] Refers to not only the broad acceptance by the public of new regulations, technologies and/or strategic infrastructure projects, but also (more critically) the acceptance by communities set to host such infrastructure.

other state actors as an issue (*e.g.*, see Catchments.ie, 2019; Boyle *et al*., 2022). This evolution in thinking has been captured by Dunphy *et al*. (2023), who give an example from Ireland, where Science Foundation Ireland research centres have adjusted their approach to public engagement over recent years. This has seen PE changing from being something that was part of their remit to do (i.e., ranging from a box-ticking exercise to something more, depending on the individual centres) to being something that "is actually a means to an end in that we know that our research can be more impactful if we are doing it in collaboration with those partners and end users and policymakers" (*ibid*).

Increasingly, the norm in recent decades can be characterised by some form of public involvement in decision-making, particularly in relation to environmental and planning issues but also around energy. Examples include public hearings, education, information dissemination, public advocacy and advisory boards (Richardson & Razzaque, 2006). Dunphy *et al*. (2022) suggest this shift from primarily DAD approaches (*i.e*., 'decide- announce-defend') to a more inclusive and responsible rearrangement that comprise 'consult-consider-modify' (Dunphy *et al*., 2021). It should also be noted this approach is often not only carried out to ensure smooth completion of individual projects, but it is also done as a means for projecting a good image (and consequently broaden public support for) of a particular technology/initiative or indeed the wider sector (Aitken *et al*., 2016). As such, public experience from one project (especially if it is negative) can have knock on consequences for future responses to similar projects and/or companies (Richardson & Razzaque, 2006). Clearly, the consequences of poor public engagement will have significant knock-on effect not only within the locale of the proposed project but, given the reach of modern communication platforms to transcend both space and time, also impact communities far beyond the original site of contention (Dunphy *et al*., 2021). Increasingly, government programmes/initiatives, like energy performance certification, are not immune to this and without proper oversight run the risk of falling foul of unintended negative responses from those citizens they have been designed to assist.

The public's response to new initiatives or programmes often follows a U-shaped curve of approval with strong initial support (especially in principle, *e.g*., all the participants we spoke with acknowledged the importance of having standardised energy performance certification), which may decline as the initiative is rolled out, before increasing again once fully operational and any initial problems are ironed out. A recent example of this can be seen in the rolling out of the deposit return scheme for plastic bottles in Ireland, which was introduced this year[8]. This circular

[8] See the Re-turn website for more information: https://re-turn.ie/

economy initiative was introduced in February 2024 in accordance with the EU's Single Use Plastics (SUP) Directive as part of its recycling targets of 77% by 2025, and 90% by 2029. Prior to implementation, public approval for such as scheme was generally positive or neutral on the topic. However, once the scheme was introduced there was an uptick of dissatisfaction as inevitable operational issues arose as the return points and machines were installed and with the transition more generally (particularly in relation to the new bottle cap design that accompanied it). However, once these initial issues were resolved attitudes to the scheme have since improved[9].

This U-shaped pattern of acceptance have been replicated elsewhere, most notably for this report around renewable energy deployment (*e.g.*, for wind farms see Hallan & González, 2020) and building upgrades. As such, it should be acknowledged that local opposition is not always intractable or insurmountable, but rather follow certain paths depending on the causal factors that have led to the opposition in the first place. One strategy by developers have used in the past has been to point to perceived popular support for a technology/service at the (supra)national level to dismiss or diminish concerns expressed at the local level. However, this strategy invariably has on led to further alienating of local people who may have initially been more open to accommodation had they experienced a more collaborative engagement on the part of the developer[10]. Also, such approaches by project leads not only impact public acceptance relating to a specific project, but it also has knock-on impacts to attitudes on future projects and campaigns (Mullally *et al.*, 2018) as a result. As noted by Dunphy *et al.*, (2022) the dip in support during the implementation stages of a programme/project followed by improved societal attitudes once complete or operational suggests not all opposition is due to the technology or service being rolled out, but rather can arise from perceptions of injustice in the decision-making process itself (Warren *et al.*, 2005).

Therefore, a thoughtful well-planned education and public engagement (EPE) programme can make a meaningful contribution towards addressing and even counter the many causal factors that can emerge to stoke opposition to, and diminish societal acceptance of, potentially contentious programmes/projects. Whitmarsh *et al.* (2019) suggests that a significant first step for engaging the public

[9] For an interesting account of public attitudes to recycling and deposit return schemes in Whitehead, Co. Antrim (N. Ireland) see Dempster *et al.* (2021).

[10] An illustrative example of this can be seen with the Corrib Gas controversy during the 2000s and 2010s in Ireland, where the concerns of local people to a proposed and eventual onshore gas pipeline were not adequately addressed by the developer. Indeed, the mishandling of those initial concerns led to significant protests that had international significance and impacted national debate in Ireland ever since (for more information on this case study see Garavan, 2008; Siggins, 2010; Slevin, 2019; Lennon *et al.*, 2022).

is to understand their perceptions and motivations and points to Fiorino's (1990) distinguishing of three key rationales for public engagement:

- Normative: the idea that projects should involve those individuals who have a stake in the decision (*e.g.*, communities/stakeholders affected).
- Substantive: a belief that involving the public will improve the decision-making quality by incorporating diverse knowledge and values.
- Instrumental: used as a tool for achieving a specific goal, (*e.g.*, increase societal acceptance, foster trust in experts, developers and/or government[11].

Across all three rationales, we suggest is the importance of establishing and maintaining trust between the project leads and those affected publics. Otherwise, the frameworks put in place to facilitate engagement will become ineffective and may negatively impact the goals of the project lead or the service that the engagement programme is meant to facilitate.

3.2 Public(s) and the Importance of Trust

As Petts (2008) notes, the assumption that trust is confirmed rather than conditional is particularly common with governments in the recent past which have often almost taken for granted that there is always a positive relationship between public engagement, suggesting it is a false hope. As such, and given the complexities involved, an enduring trust is very unlikely to emerge from public engagement alone and project leads must be conscious of what Stebbing (2009) describes as the 'trust gap' or 'trust deficit'. Indeed, Aitken *et al*. (2016) suggests it is time to move beyond rather superficial descriptions of trust and instead examine more fully the contexts informing public trust/mistrust in order to achieve what they describe as 'trustworthiness'. This is especially important for public engagements that involve a high degree of interdisciplinarity. Though, it should be noted Parkins *et al*. (2017) highlight the potentially positive impact a combination of general trust and scepticism can have in motivating public engagement, especially if this is coupled with a high degree of transparency on the part of the project lead.

The modern understanding of the term 'public' emerged during the seventeenth century, as the struggle to establish property rights between assets held by the crown/sovereign and those held by private landowners (Horwitz, 1982). The term as it was then understood operated within a rather strictly defined legal understanding but has now somewhat broadened out in the public discourse.

[11] See also Whitmarsh *et al*. (2009), who point to stakeholder feedback in their research suggesting that fora for the co-production of knowledge between citizens and experts has significant knock-on positive impacts with regards to social acceptance.

Appreciations of term now differ depending on which discipline one engages with (*e.g.*, corporate public relations, public pedagogy, sociology, political science, *etc.*), so much so that there have been calls for greater clarity when using the term. Hartman (2017, p.9), for example, has pointed to "how little sociologists have theorized the notion of 'the public' in talking about public sociology". This ambiguity has itself translated to the project management and policymaking arenas, with practitioners often shaping engagement programmes in terms of their own ideas of what 'the public' is or what it should be. Consequently, this variation in approaches has resulted in those most affected stakeholders in the process having to experience numerous contradictions regarding the expectations being made of them. In turn, this has also informed their own expectations of those leading those engagement programmes that have been designed to appeal to them. It is now widely accepted that 'the public' cannot be considered a homogenous bloc of people sharing the same opinions, but rather there are many and varied publics depending on the topic and the focus (Michael, 2009; Cotton & Devine-Wright, 2012).

Any cohort of citizens can be considered a public or community, within which there are multiple micro-communities depending on the social, temporal, spatial contexts, *e.g.*, within the community or public engaging in energy performance certification there are professional communities of regulators, business owners, and users all engaging with each other in some capacity or other. In addition, other publics coalesce around different aspects that intersect the public and private spheres of one's life, *e.g.*, we can categorise these in terms of one's gender, ethnicity, class, or sexual orientation/identification that can all inform to different degrees how one experiences or perceives different energy technologies (Dunphy et al., 2017) and the official public engagement programme related to them. These intersections are further complicated by the different roles individuals play, or are expected to play, over the course of their day, *e.g.*, as government officials, business leaders, energy planners, citizens. Therefore, when using terms like 'public' are being used we need to ask `which public' and `whose public' is being referred to (Savage, 2013), particularly given how much attitudes to public participation and the plethora of online tools designed to facilitate this have changed in recent years (Healy, 2017). Ripatti-Torniainen (2018) suggests the characteristics of what is 'a public' can be derived from the primary characteristics to which it is best understood, *e.g.*, in terms of accessibility a public is that which is seen or heard as such (Arendt, 1958). While this is primarily assigned to people, a public may also represent both a process and a product. Cayton (2008, p.2), for example, point to "where a common good transcending the particular and private was discussed, ratified, and promoted, as well as the results of those deliberations" can all be wrapped up in the term.

However, we should note for this report our focus on the public has less to do with abstract or theoretical discourses and more to do with how publics are envisioned by those practitioners conducting public engagement programs. To understand how one conceptualises the influences on the public when conducting an EPE, the work we have engaged in for the EUB SuperHub H2020 project and elsewhere has led us to try and capture this phenomenon using a typology of three different publics in accordance with the varying levels of influence they might have on the decision-making process. The three notable publics when considering public engagement around EPCs are: the passive public, the participatory public, and what we term the empowered public.

3.3 Types of Publics

3.3.1 Passive Publics

In recent years, there has been a growing awareness amongst government actors (Chilvers & Burgess, 2008), but also project leads (Owens & Cowell, 2011), that at least some form of public engagement must be entered into if a project is to have any degree of stakeholder buy-in (*e.g.*, see McMahon, 2021). This first typology of the passive public reflects the perspectives and attitudes of those holding a top-down perspective and are referred to as passive because as members are very often restrained on how and when they can participate in the decision-making process. Engagement here, can best be understood as being somewhat performative with any interaction being largely representative rather than inclusive of the greater public (Michael, 2009). As such, the passive public usually emerges from very controlled, selection processes conducted by programme administrators or project leads.

Members are specifically chosen because of their representative qualities using targeted surveys (which are themselves rather limited and limiting) or focus groups to identify appropriate candidates that align to the organisers' expectations and biases. This conundrum has been noted for some time, *e.g.*, Dewey (1927) notes how a public is essentially a group of individuals bounded together by circumstance usually beyond their control and it is this boundedness that appeals to programme administrators given the ease at which they can be reached *etc*. To better understand this boundedness and how it works, Smith *et al*. (2021) examined three different case studies across three industries/sectors to determine how the public was perceived by practitioners in each. The industries each has a long history of 'public engagement' to varying degrees and comprised electricity transmission and distribution, chemicals, and renewable energy. What is notable in this study is that, while representatives from each industry did acknowledge the importance of conducting public engagement they rarely if ever referred to 'the public' or outlined what they meant by the term when carrying out engagement programmes for the

companies they worked for. By and large, the focus is invariably on 'the consumer', or 'the customer' – both of which signified what the practitioners understood as being 'the public' – who needed to be 'informed' *etc*. The assumption being once better informed the likelihood for protest would diminish as a result. However, many scholars have suggested this can described more as 'engagement theatre' (Kamols *et al*., 2021) than any real effort to engage with the public. Indeed, Monno and Khakee (2012) have described how the often-tokenistic approach to participatory planning taken by some practitioners can be seen as such given the distortion of its purpose and philosophy. Engagement with the passive public comprises merely of the perfunctory distribution of information about a project or programme, and the decision making has already been decided by technical experts and permitting bodies.

The participants in Smith *et al*.'s three case studies all pointed to the three primary motivations described in section 3.1 above, namely: the normative (frame as the ethical thing to do), the substantive (all the public needs is the 'correct' information) to set the conditions for, the instrumental (whereby an informed public will more likely accept the proposed project). However, while all three motivations were acknowledged, it was the instrumental that preoccupied the project designers. Hindmarsh and Matthews (2008) refer to this disjuncture between what is said and what is actually done as 'deliberative speak', where the use of rhetorical language is used strategically to reflect deliberative principles (*e.g*., terms like 'inclusive', 'informed', 'transparent', and 'participatory' are used) without applying the processes and practices required to achieve them. An example of this would be a 'community consultation' is used to describe what was essentially an information dissemination event, where the 'consultation' element of the activity was curtailed to invited members of the public commenting on what has already been decided upon. All this raises the issue of authenticity, which the public is already very much mindful of and when not properly accounted for can lead the passive public becoming more of a resistant public.

3.3.2 Participatory publics

Another conceptualisation of publics that has seen considerable interest by scholars in recent years can be described is the 'participatory public' and involves people coming together to form a representative group of the wider population being impacted by a proposed project or intervention. What sets it apart from the previous cohort is in the expression of agency in both the decision-making and participation processes. Rather than being confined to the role of passive receivers of information, or indeed participants in a box-ticking exercise to satisfy the bare minimum of corporate public relations obligations, this public is more active and engaged and is a closer expression of Dewey's (1927) ideas of democracy in action.

Indeed, as Habermas (1991) alludes to, it can describe those cohorts of people who stand up to institutional or governmental power and who expect their voices to be heard. Increasingly, it is those voices that are being sought by more progressive project leads. One sector where you will increasingly see this public is within third level institutions, which experienced a 'participative turn' in recent decades (King & Rivett, 2015) with educators who were intent on moving beyond the unidirectional flow of information model (*i.e.*, from the lecturer to the student) where the student is a passive recipient to a more a collaborative information exchange with their publics.

As Saltmarsh and Hartley (2011) note, the university is increasingly taking on more responsibility for those communities they engage with (often through its sustainability programmes) to address common issues or concerns trough democratic means that foster "a healthier society and a stronger, more robust democracy" (*ibid*, p. 4). Michael (2009) has described this approach as a shift away from the more passive assumptions of promoting a 'public understanding of science' (PUS) to the more active and collaborative 'public engagement with science' (PES). As Mohr (2011) describes in her assessment of the types of publics and how they are constructed, points to the differing possesses that evidently push citizens into predetermined roles (*e.g.*, some approaches prioritise the role of the consumer when referring to their conception of what is a public – this also assumes a greater expectation of passivity on the part of the public as a result; whereas other more collaborative approaches identify the public as comprising of citizens – with the assumption of a greater degree of agency that comes with this). Indeed, the growing interest in deliberative democracy methods of engagement on the part of national governments (e.g., in Canada and Ireland) which requires people to actively listen, consider, deliberate, participate in debates, assess the options, potentially compromise, and propose solutions is considered more acceptable than more traditional democratic expressions (Felt & Fochler, 2010). As Michael (2009, p. 622) suggests, the participative public must deliberate on key issues "through formalized mechanisms of voicing", which is not an easy process for participants or facilitators of an EPE programme, particularly with regards to the time it takes do properly (Brooks *et al*., 2020).

A key benefit of this approach is that by viewing the public as rational actors able to debate and consider complex problems, the democratising impact on contested societal discourses is both wider and deeper and offer better outcomes for those actors responsible for public engagement (Sintomer, 2018).

3.3.3 Empowered publics

The third public we point to is further along the democratising process. However, while also receiving considerable interest in the literature one should note that this

public – like the other expressions discussed above – does not simply 'emerge' but is also very much consciously created by those with the power to do so. Having said that, when supported correctly, empowered publics can be considered a higher expression of citizen power and participation than the others. The role an empowered public can make to making societal change is considerable and given the goals of energy performance certification programmes in changing how we perceive and interact with energy, especially since more than the other it has real decision-making power. Rather than adopting an advisory role, the empowered public has greater agency whether it concerns policy change or project/programme implementation. This can be understood as having a certain ownership stake in the process, which can range from decision-making to having a financial stake.

While the passive public is most often envisioned by business leaders and their aligned government actors, the participatory appears to be favoured more by some social science scholars and government actors interested in strengthening democratic processes. Other social scientists, activists, public groups and non-governmental organisations appear to favour the fostering of empowered publics to meet the many social and environmental challenges facing us. The intention here being to instigate specific changes rather than merely protest or enable the automatic approval of policy etc. The empowered public helps to identify the causes of a societal problem and create targeted policies to counter them. Their members are invested and motivated by a passion to resolve the issue that animates them (Peltola *et al*., 2018).

We suggest the previously described publics align with Dewey's (1927) understanding of publics, while we wish to highlight a less known contemporary of his, Walter Lippman, who also theorised on what constitutes a public. Writing about Lippman, Hartman (2017) points to the types of coalescing factors that lead to actual organisation and decision-making in contemporary societies, which do not appear to happen through the actions of individual citizens (in democratic countries at least), but rather take place collectively through large organisations and bureaucracies run by elected officials and institutional administrators. An example of this can be seen in the global response to the COVID-19 pandemic, with governments taking drastic measures in response to a perceived existential threat. The gradual shift in focus from government to governance in social organisation and decision making has seen a greater space for non-governmental bodies to take up a role in the process. Indeed, government actors have at times come into opposition with those same societal actors who would ordinarily be allies them[12]

[12] An example we suggest illustrates this was the Corrib Gas controversy mentioned in Footnote 11, above.

(Boyask & Vigurs, 2018). This type of public has in many ways less to do with concerned individuals and more to do with the multitude of motivated actors we mention above, who act as a counterweight to those in authority (Ripatti-Torniainen, 2018).

Another fundamental difference empowered publics have compared to passive or participatory publics is that the later already exist even before an EPE programme administrator has even begun to plan what type of programme she envisages. Whereas the empowered public is formed or created for a specific purpose by groups and civic organisations already operating within the community (Wolff, 2001), and who already have established relationships with other like-minded actors and have greater agency than individual, less-informed citizens. This type of public has received growing scholarly attention and has been framed as a kind of intermediary at the grassroots level (Boyle *et al*., 2021) who engage in effective ecologies of participation (Chilvers *et al*., 2018). Admittedly, these publics can be more difficult to identify or align to a specific public engagement programme, given the multiple intersecting causes and effects that comprise public life. However, as Boyask and Vigurs (2018, p. 222) allude to it, these publics operate in tandem with the social contract between the citizen and the state "that organize themselves around different sets of principles, and at times, interact with the public participation process of state". Therefore, it is important if we are to have an effective public engagement programme around energy performance certification we need to consider and plan effectively on how best to engage across these publics.

4 Stakeholder perspectives on public engagement around building energy

Building stakeholders (including occupants) were engaged through a mixed methods approach as outlined in Section **Error! Reference source not found.**, involving a survey supplemented by semi-structured interviews. Section 4.1 below provides a background to the survey and a presentation of the qualitative data gathered therewithin, Section 0 comprises a brief overview of the supplementary interview process, and Section 4.3 provides a summary of the findings from an analysis of the survey and interviews.

4.1 Surveying across the focal countries

An online survey was used to collect perspectives on engaging the public around building energy ratings and certification. The survey, a copy of which is included as Appendix 3, was designed to capture: perceptions of public engagement on energy performance certificates (EPCs); insights on approaches to public engagement around EPCs; and views on public engagement principles. Opinions were sought from a variety of building stakeholders, including occupants from across the focal countries of the EUB SuperHub project, supplemented by additional areas where appropriate. The survey was disseminated through a combination of social media messaging[13] and direct canvassing. Forty-six responses were collected from this survey from across the focal countries, *viz.,* Austria, Croatia[1], France, Germany, Hungary, Ireland, and Italy as illustrated in Figure 1 below.

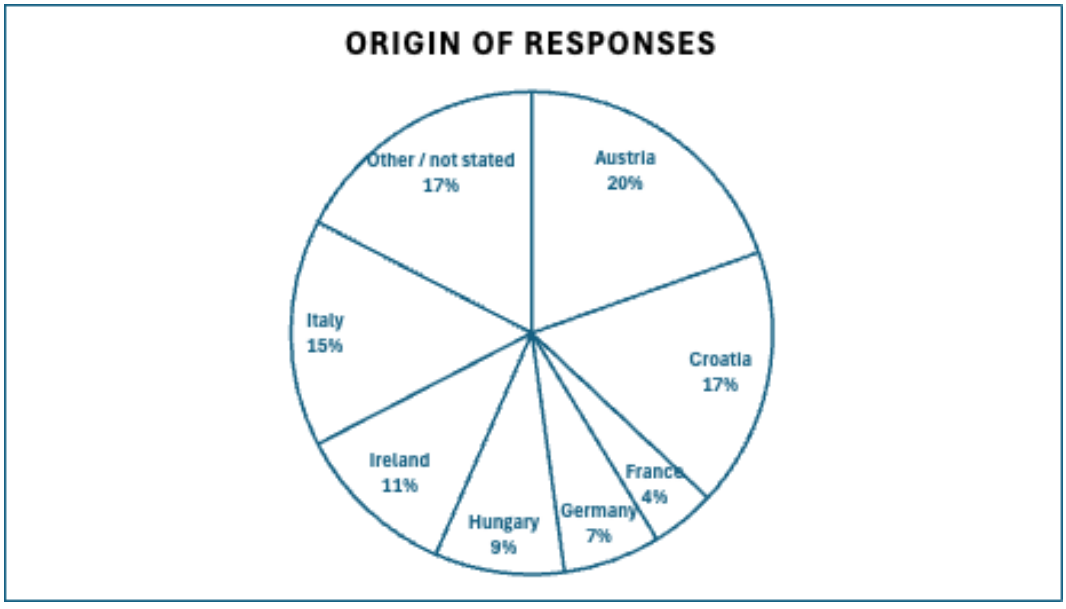


Figure 1: Geographical distribution of respondents

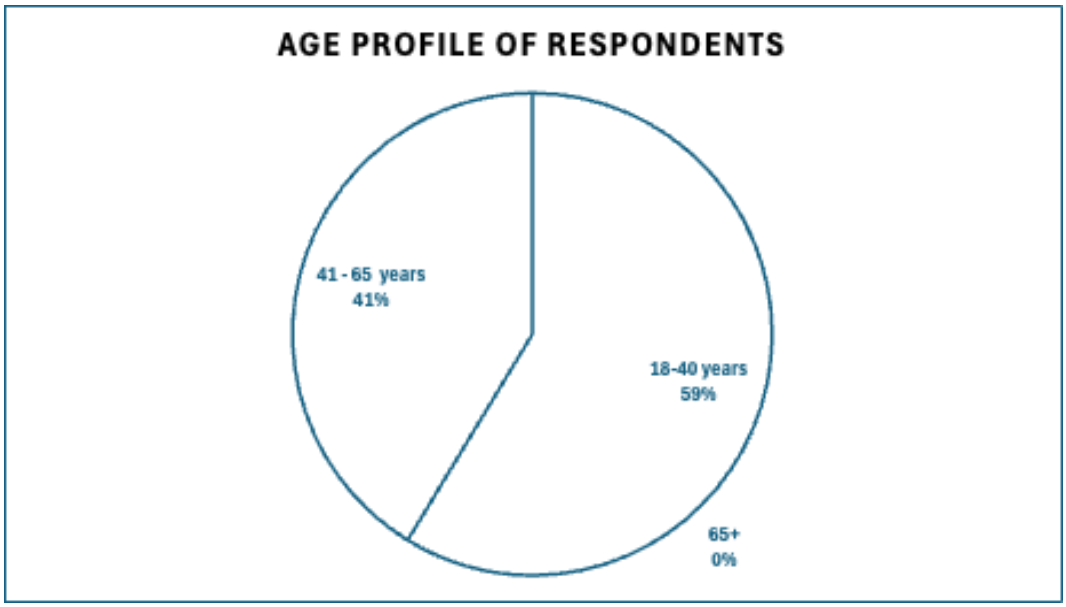
Opinions were gathered from all participating countries in addition to some additional areas. The analysis of these survey responses was informed by the results of an earlier

[13] The efficacy of social media engagement seems to vary depending on the platform, where once Twitter/X was quite effective, in recent years other platforms such as *e.g.,* Instagram & LinkedIn would appear to be more useful

survey on stakeholder interaction and identifying market actors' needs, which resulted in 100 responses from eight European countries, namely: Austria, Bulgaria, Finland, France, Germany Ireland and Italy[14], and informed by supplementary interviews as outlined in the following section. The findings from this engagement (as outlined in Section 4.3) fed into the development of public engagement principles relevant to the EUB SuperHub methodology as presented in Section 5.

Figure 2: Location of focal countries

The respondents to the survey had a relatively young profile are illustrated in Figure 3 below. Three-fifths of the responses were from people aged from 18-40, with the remaining respondents being aged between 41 and 65 years. While the online nature of the survey may have had some bearing on this leaning towards a younger cohort, it is not considered to be a dominant factor, given the widespread digital literacy, including amongst older groups, found in the focal countries. A more plausible explanation is that younger profile perhaps aligns with those active on, or at least interested in, energy efficiency buildings – therefore being more likely to respond. This also aligns with the fact that all respondents reported a university level education.



[14] As described in Dunphy, N.P., Quinlivan, L., Lennon, B., (2023). Mapping of stakeholder interaction and identification of market actors' needs. D 4.1 of the EUB SuperHub Project. (H2020 Agreement No. 101033916)

Figure 3: Age Profile of survey respondents

Almost 70% of respondents to the survey were male compared to approximately 30% female, demonstrating a significant gender imbalance. This is in stark contrast with the earlier survey referred to above, which had a roughly 50:50 split in responses – with female respondents in fact slightly outnumbering male. There is no particularly apparent reason for such divergence in gender response rates between the two surveys. It may be due to a gender differential in the roles adopted within the construction, renovation and realtor sectors. Although the survey was targeted at all building stakeholders, including occupants – there may have been a perception that the topic of building certification was a technical issues, best addressed by those in technical roles, which in that majority of professions still have an under-representation of women[15]. This is not withstanding that the survey related to public engagement, a professional area which has a far higher representation of women. While it would not be prudent to over-analyse a gender breakdown of a relatively small survey population size, it is an interesting datum, and could perhaps indicate that the public engagement around building energy certification has been understood heretofore as a technical communications activity, led by technical staff (which are typically male dominated). The survey respondents were asked to describe their interest in building energy certification. Of course, each of us has multiple over-lapping identities in home life, our professional work, voluntary activities, *etc*. It was interesting therefore to see which 'identity' the respondents indicated in response to this query. As shown in Figure 4 below, four-fifths of responses stated their interest in such certification was related to their work and/or study[16]. These respondents represent those interested engaging the public on this topic. Just less than one-in-ten indicated that their main interest was a building owner/occupant, and for just over one-in-ten, their interest was related to community groups and NGOs. That these two groups together, representing those to be engaged, accounted for one-fifth of responses was encouraging and contributed to some very useful insights.

[15] This something that is also reflected in the gender breakdown of the interview participants in Section **Error! Reference source not found.**.

[16] This aligns with the fact that all respondents to the survey had university level education, indicating a somewhat educated, (relatively) affluent group. Which is in keeping with the type of people that are (currently) more likely to be interested in EPCs

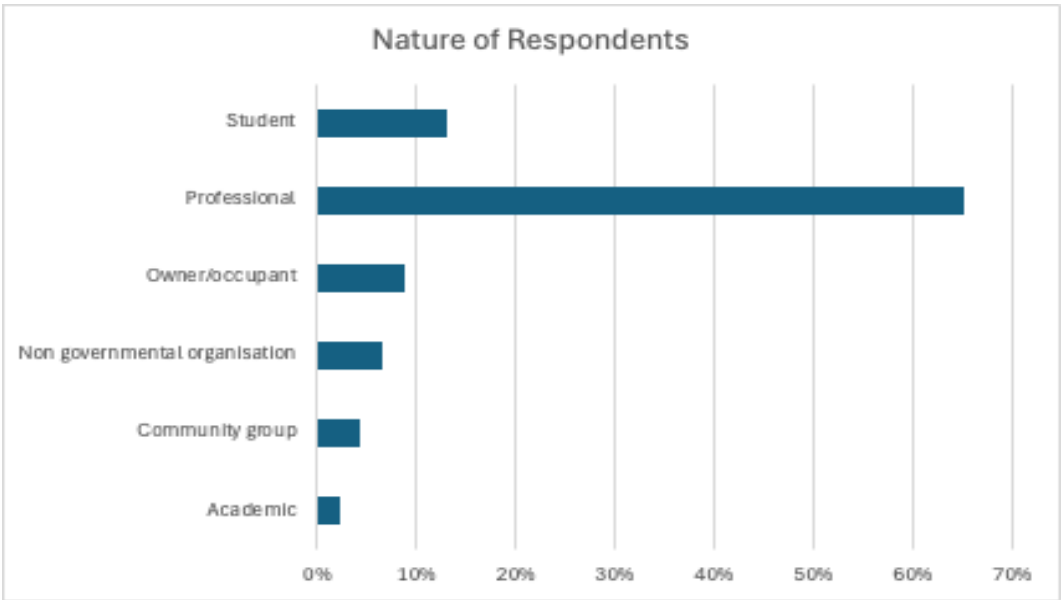


Figure 4: Self-descriptions of roles in relation to buildings

As can be seen in Figure 5 below, over half of those responding to the survey had some knowledge of energy performance certificates – One-third said they were somewhat familiar with EPCs and a further 28% professed to be very familiar. Less than one-quarter said they were not familiar or not very familiar, with some 15% expressing a neutral response. This level of familiarity is in keeping with the high proportion of professionals responding and the fact that the respondents choose to 'self-select' in completing the survey.

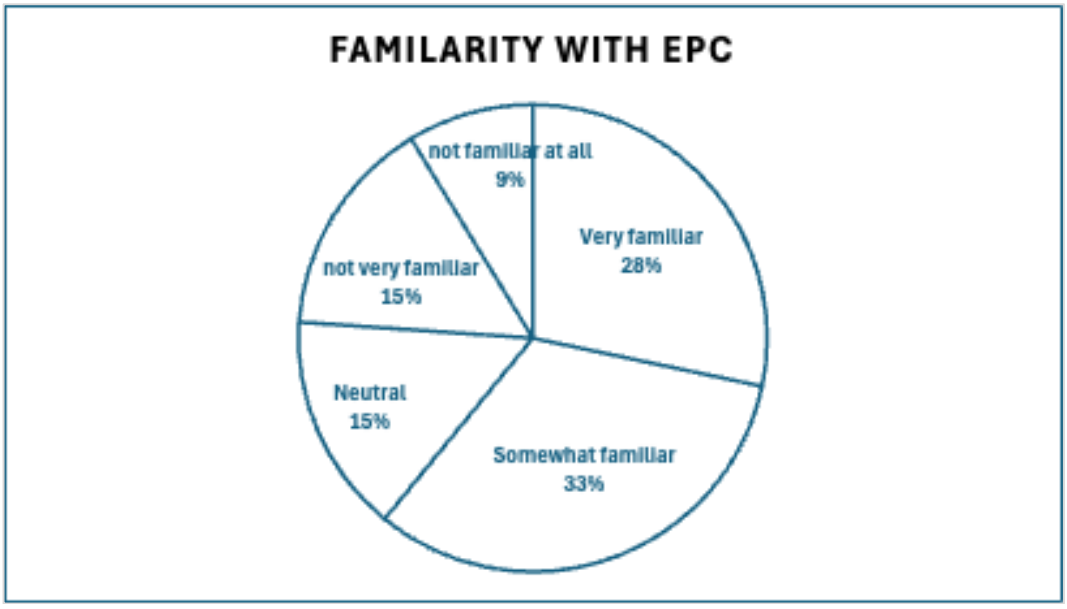


Figure 5: Familiarity of respondents with energy performance certificates

Interestingly, notwithstanding their familiarity with EPCs, just half of respondents indicated that energy performance certification was important to their work as shown in Figure 6 on the following page. However almost 70% saw this importance of EPCs to work increasing in the coming years.

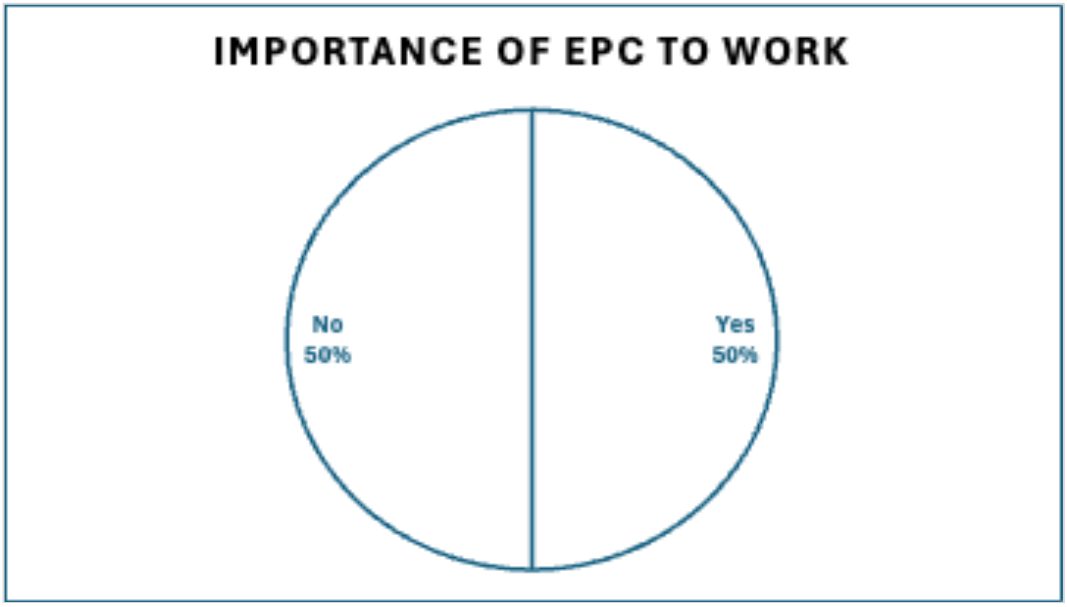


Figure 6: Importance of Energy Performance Certification to respondents' work

As shown in Figure 7 below, almost three-in-five respondents reported having obtained an energy performance certificate for a building that they lived in or owned – indicating a good deal of real-life experience with EPC processes.

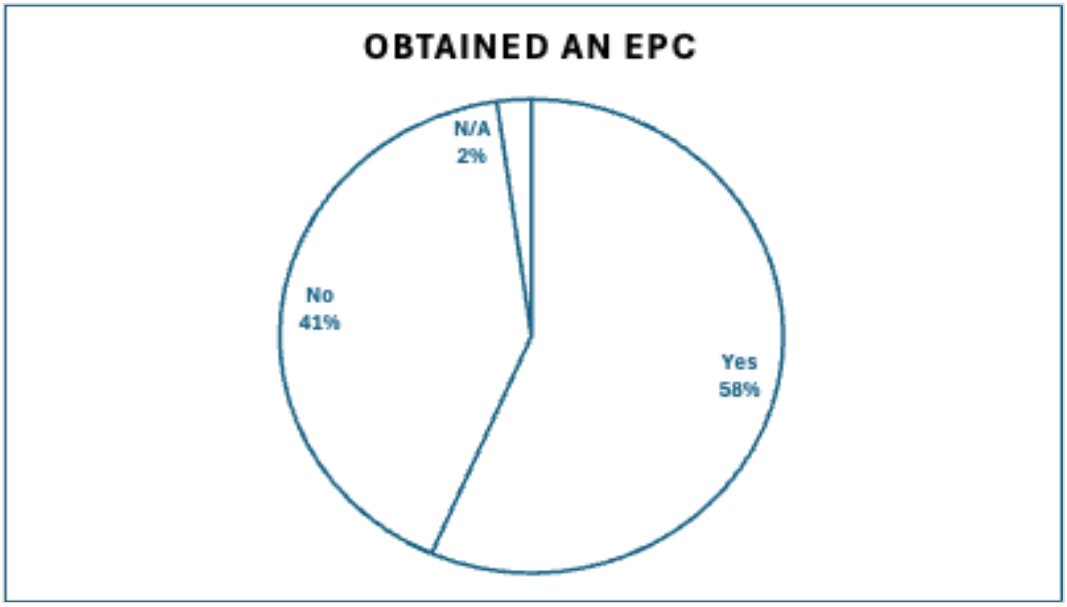


Figure 7: Respondents who have obtained an energy performance certificate for a building

Figure 8 below, details the sources of information trusted by respondents when they seek information on buildings and energy. There is strong trust placed in government agencies with over half of response indicated that that would be their 'go-to' place to get such information.

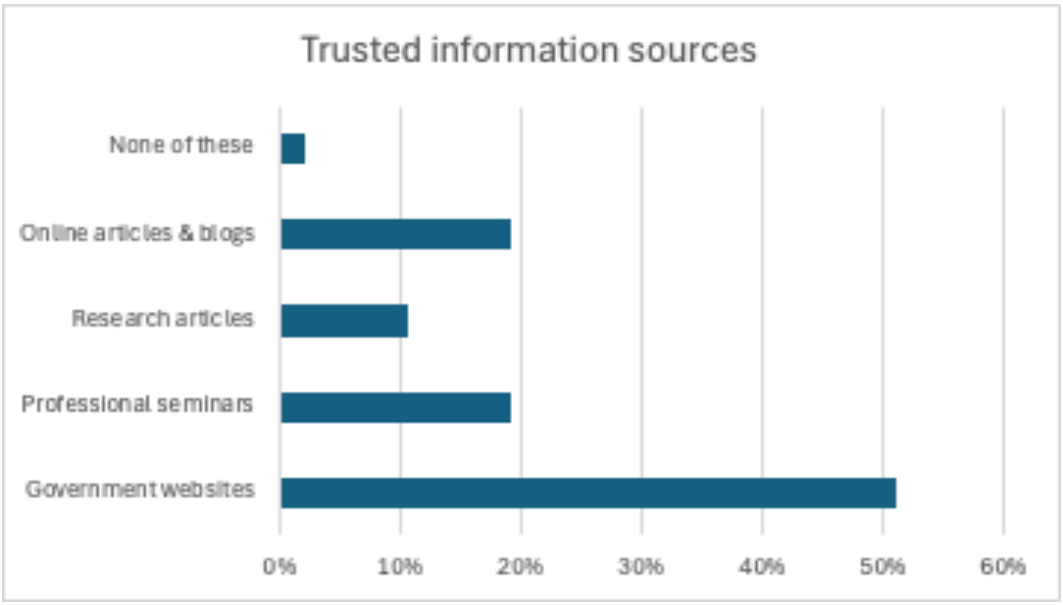


Figure 8: Trusted sources of information when looking for information about energy & buildings

Public information needs

There was strong support for the idea that there is a need for increased public awareness on energy efficiency and related environmental/climate impact issues. Ninety-five percent of respondents either agreed or strongly agreed with this proposition, with just 2% against, as shown in Figure 9.

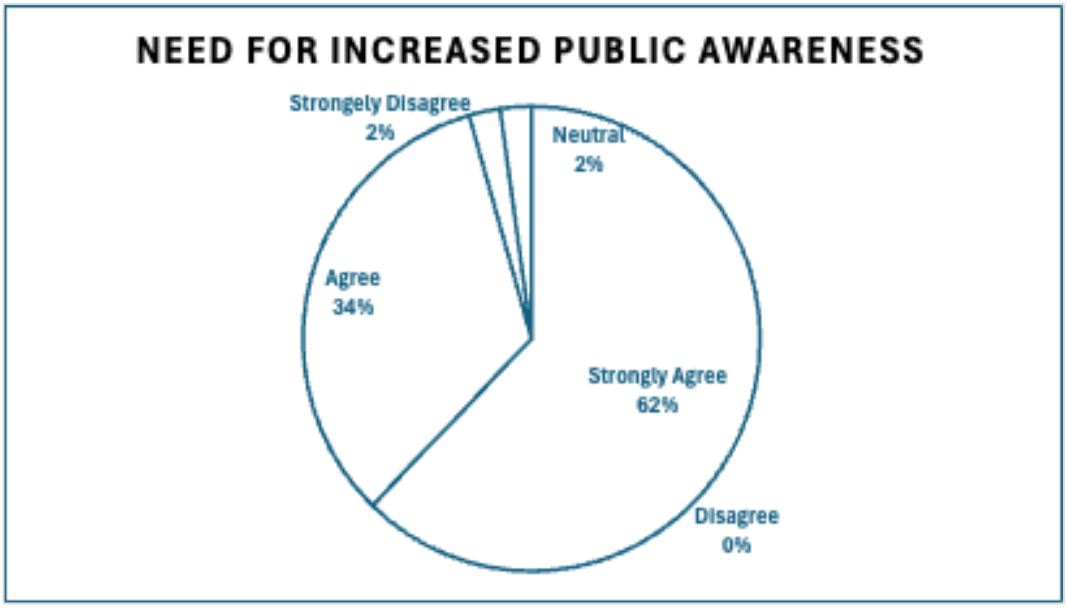


Figure 9: Opinions on need for increased awareness around building efficiency and related environmental impact

There was consensus that there was a need for increased information on energy efficiency ratings of buildings, with almost three-quarters strongly agreeing as shown in Figure 10 below. The difference (although not very large) in the support for this

proposition and the previous one is most interesting. It would appear that mention of the climate context in the previously query resulted in reduced support – demonstrating perhaps a hint of the climate culture wars so prevalent elsewhere.

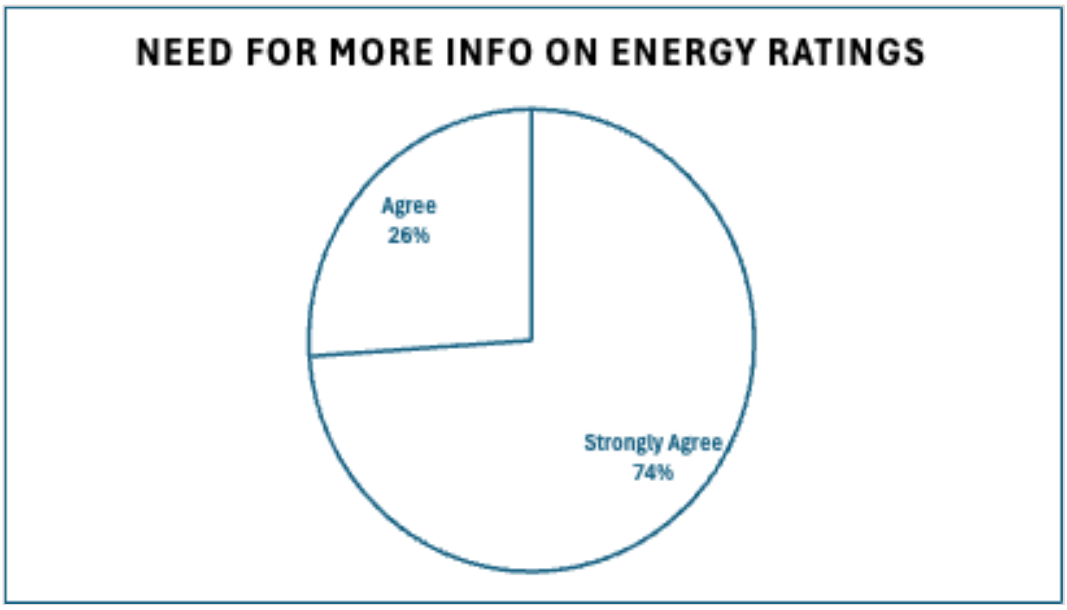


Figure 10: Opinions on need for increased information on building energy efficiency ratings

Leadership

Figure 11 below outlines the opinions of the respondents of who should lead public engagement around energy efficiency buildings and energy efficiency ratings. It is striking that just one respondent was of the view that this should be led by government / government agencies, indeed there was more support for the idea that is should be led by marketing consultants. One-fifth opined that industrial professionals should lead, and when combined with technical stakeholders and universities, we can see that two-fifths believe it should be led by (technical) experts. Over half of respondents suggested that such public engagement should be led by community groups or other non-governmental organisations. In short, these responses can be best summarised by saying that while there was strong support for an expert-led engagement, most respondents were of the opinion that the social and community sector should lead – reflecting perhaps issues of trust, and of local reach. The low level of support for government (at whatever level) led engagement is noteworthy (and perhaps even a little puzzling).

Figure 11: Respondents' views of who should lead public engagement around energy efficiency buildings.

4.2 Semi-structured Interviews

While the primary engagement method was the survey presented in Section 4.1, a series of interviews was undertaken to complement and supplement the findings emerging from the survey. The interviews were conducted using videoconferencing using the using Microsoft Teams platform.

The selection of the interviewees was not intended to be representative, rather the intention was to aim for a good diversity of participants. A total of eight interviews were conducted with six male and two female male informants from six countries, *viz.,* Austria, Croatia, Germany, Hungary, Ireland, and Italy. Five of the interviewees were involved in energy efficiency building in a professional capacity and three were building owners / occupiers. There was a mixture of both rural and urban dwellers represented in the interview group. Although a relatively small group of people, the selected interviewees provide a good diversity of context and experience to inform the study.

The interviews were semi-structured and were analysed using a generic thematic analysis technique, this analysis supplemented the analysis of the survey responses and the findings of these analyses are included in Section 4.3 below. A copy of the interview schedule is included as Appendix 4.

4.3 Findings on public engagement around building energy

Role of the individual

When asked of the role(s) that individuals (could) play in contributing to energy efficiency, and how can they (could) make a difference in their daily lives, the responses were quire varied. Some respondents were quite sceptical of the impact of an individual with one respondent for examples opining "*In their daily lives… very little. Most individuals just try to get through their day*", while another suggested that they role was limited due to the "*structure of the energy system and the technologies in play.*"

Others took a more positive view of the role of individuals on energy efficiency, including responses like "individuals are the core actors", "*… their contribution is prime importance in energy efficiency*", "*There are a multitude of things that people can do …*". Other respondents perhaps were somewhere between these two view, acknowledging the potential of individuals to enacts change, but also noted that their agency may be limited due to structural issues. These varied responses illustrate the complexity of realising individual-focused change in building energy use. Although scepticism was expressed by some about the ability of individuals to achieve significant impact through behaviour change (in part to structural barriers), there was greater agreement that individuals can play a significant role through their purchasing and rental decisions including at the whole building level – hence the relevance of energy performance certification.

Personal experience of seeking information

Thirty-eight of the respondents related an experience where they actively sought information about energy efficiency for a building. Thirteen of these spoke about seeking information in undertaking activities within their profession life, one example being a respondent's contribution to the design of a Nearly Zero Energy Building Standard (NZEB)[17] office building, while another recalled their work on energy conversation in school building focusing on on heating, ventilation and air conditioning. In both cases, respondents sought to collect technical information to address the specific needs of their energy efficiency projects. The professional experiences shared were described rather minimally, while some information was provided on the type of information sought, there was limited details provided on the source of the information[18] – the implicit (albeit unstated) understanding being that the information was sourced through conventional commercial channels and online sources.

Twenty-five responses were related to respondents seeking information for buildings in their own personal life. This included obtaining energy performance certificate in advance of renting or buying a property, with one respondent saying, "*We are about to move to new building which is a 'green one' and this was a priority for us.*" Another on the other side of property transactions noted they had "*had to involve an expert to get an energy performance certification to be able to sell* (a property)." Another respondent recalled that when they had to fit out a kitchen in a new apartment, they paid particular attention to "*energy efficiency classes for all major appliances*" and were "*actually able to massively reduce my energy consumption by upgrading the appliances.*" One respondent described an issue they had with an EPC for a new apartment – although the EPC from the notary stated D, it was evident from living in the dwelling that it was flawed. As a result they "*paid for three subsequent energy audits, almost each of them ending up with a different note: from E to F*" this last

[17] NZEB buildings are those '*with a very high energy performance … where the nearly zero or very low amount of energy required is covered to a very significant extent by energy from renewable sources*' EU/2024/1275 Recast EPBD

[18] The one exception being display energy certificates (and presumably the associated advisory reports) relating to the actual energy usage of public buildings, mentioned in several responses.

contribution in particular highlights the needs for a transparent, robust and trusted system for energy certification.

EPC and related publicity programmes

The French government led energy reduction plan *Plan de Sobriété énergétique* was indicated as a good example of public engagement on energy efficiency. This major energy conservation plan was put in placed in 2022 to address the risk of energy shortage linked to the Russian invasion of Ukraine. In what appears to be a deliberate strategy, the plan has been discussed extensively on TV news and current affairs programmes. This use of traditional media news programming contributes to building trust – by facilitating a measure of debate on this so-called 'energy sobriety' plan – while at the same time building awareness of the plan and promoting uptake of its offerings. Sectoral working groups was established to promote specific aspects of the plan including on 'housing' and 'Establishments open to the public' in which stakeholders were engaged to drive the implementation of the plan. A comprehensive communications plan *Chaque geste compte* (every gesture counts) was developed and put in place to support the realisation of the plan, including *e.g.,* a dedicated website, tv advertisements[19], radio advertisements, postering, and a campaign across multiple social media platforms (Facebook, LinkedIn, Twitter/X).

Another example of good communication identified by the respondents was that associated with the Austrian klimaaktiv building standard. The standard was developed by the Austrian Energy Agency to make the quality of a building measurable and comparable. The standard is open source and available to anyone interested, for any building category, free of charge. There are no user fees for the building assessment on the declaration platform. The open source building standing is promoted and disseminated through a variety of communication channels including the state level energy advice centres. Multiple tools including *e.g.,* dedicated website, webinars, catalogues, brochures, guidelines, *etc*. There is also a klimaaktiv building programme partnership in which relevant actors *e.g.,* property developers, construction companies, planning authorities, NGOs, partner with the Austrian Energy Agency to promote and apply the standard within their sphere of influence. Over 80 such organisations have joined the partnership to date.

The work of the non-profit organisation, Hungarian Energy Efficiency Institute (MEHI – Magyar Energiahatékonysági Intézet) was also identified in this regard. The NGO acts as a knowledge hub facilitating information exchange between actors on energy efficiency. MEHI have developed a network of advisory officers offering a one-stop-shop[20] approach to building energy efficiency support in which technical, financial and legal advice is available through a single service. Key modes of communication include a dedicated website (including a document library, tools & calculators, database of

[19] See e.g., *Je baisse j'éteins je décale - programme de sobriété énergétique du gouvernement* https://www.youtube.com/watch?v=MWzSCnun9Tg

[20] The advisory centres were originally developed through an EU-funded project www.renohub-h2020.eu. Following the conclusion of the project MEHI are supporting the continuation of the centre's activities.

experts, *etc.*), Facebook presence, Instagram account, YouTube channel, in-person (and online) free consultations.

Effective communication channels

There was general agreement amongst the respondents of the value of a multi-pronged approach to communication and dissemination around building energy efficiency (including energy performance certificates). As one respondent quipped "*Being reminded of energy efficiency over and again through different channels is key*."

The use of infographics was mentioned by many of the respondents. Such graphics make it easier to understand information by visually presenting it in a structured manner. They enable a complex subject to be 'dissected', meaning that rather heavy topics can be communicated in an enjoyable manner. Although they can be time-consuming (and relatively expensive) to produce they have many advantages, including, better engagement, improved comprehension. Infographics can be used across a variety of communication modes including traditional press, videos and social media. When used online good infographics readily lend themselves to sharing across social media platforms. Moreover, infographics tend to have longevity, in that they have a long shelf-life, and their appeal lasts longer. The accessibility of information through use of infographics aligns with the desirability of communication that in words of one respondent "*doesn't imply too much effort from the recipient of the message*".

Social media platforms (Facebook, Instagram, Twitter/X, TikTok, *etc.*) and video sharing platforms (YouTube, Vimeo, *etc.*) were highlighted as effective means of reaching, and more importantly engaging people. They provide a good means of reaching relatively large audiences with the right strategies. The involvement of internet or media personalities[21] in social media campaigns will provide good reach and if used effectively can be very impactful, although they may be quite costly. Good levels of engagement without the use of these so-called influencers can be achieved though creative communications strategies – taking a stratified approach to address different subgroups. While text and links have a role to play the use of images (including the abovementioned infographics) and videos can lead to far greater engagement. The delivery of regular content is seen as critical in development engagement on social media, with short animations, 'how to' videos, and infographics identified as strong content in attracting users. In this respect it is important too to observe the different communication norms and expectations across the social media platforms – image-based posts on Instagram, short (usually humorous) videos on TikTok, long-form (more professional) posts on LinkedIn, *etc.*

The use of traditional media was identified by a significant proportion of respondents. Television and radio campaigns were mentioned in several responses – while many younger people would appear to have drifted away from traditional media to consuming online content, television is still an important source of importance for many – and particularly for the age groups that are likely to be the target of such

[21] Selected personalities should be selected to align with the profile of the desired target audience.

communications. Advertising on television (particularly for many people of a certain age) gives a credibility that is simply not the case for other platforms, while radio advertising, particularly at a local level gives a deep reach into communities that otherwise would be difficult to contact. Newspapers too (both local and national) can be a very good means of reaching people about such topics, particularly when targeting certain groups and used in combination with other modes of communication. Each of these more traditional modes of communication have an additional strength for communicating on building energy efficiency, energy performance certificates. Where the communications campaign can offer a meaningful 'story', there are opportunities to break into news and current affair programming on TV and Radio, and into the news sections and perhaps even the opinion pages of newspapers. As mentioned above with respect to the French *Plan de Sobriété énergétique*, coverage of this types in traditional media adds credibility, contributes to building trust, while at the same time building awareness and promoting participation and uptake.

Policy and regulations

The introduction of mandatory energy performance certificates for renting and selling buildings was identified by many respondents as having the most significant impact in increasing the public awareness of energy efficiency, and engagement with certification schemes and opening a dialogue on energy efficiency more generally. There were however some dissenting voices, one respondent opined the "*Individuals are mostly not interested in indicators. Comfort and costs are important to them, they do not pay attention to or understand the indicators that are expressed in EPCs*", while another spoke how the housing crisis (lack of available housing in their country) meant that the energy performance of a building was a low priority when buying or renting properties.

Practices in public engagement

Some respondents differentiated between older and younger peoples noting that in their opinion the modes of communications that work best were "*for younger generation: social media, website and blogs, for older generation: brochures and flyers, public meetings, educational workshops.*" While this is likely to be underappreciating the digital literacy of many older people, it rings a certain truth and reinforces the desirability of a multi-faceted communication programmes entailing the use of varied modes of communication. Television advertisements were highlighted in several responses as good practice – in terms of "*reaching widest social groups*" in a way that they can "*absorb condensed information, rather than actively reading it.*" There was a mention also of using television shows to communicate – speaking to moving beyond advertisement space as discussed earlier.

It is said that *a picture paints a thousand words* and in the respect the use of infographics (as mentioned previously) was highlighted as a particularly good practice in distilling complex narratives into digestible imagery – especially when it can be shared and reshared via social media. A particular good practice identified in the survey was the dissemination of people's real-life stories – illustrating and demonstrating the

result of certain actions through the stories of people that members of the public can relate to, and identify with, can act to stimulate interest in action on energy efficiency in buildings. As one respondent wryly noted "*looking at what your neighbour does is great motivator*".

In some countries a lack of coordination was identified between communications at national, state and local level. This at times incoherent communications and sometimes contradictory messaging leads to confusion amongst the public and significantly reduces the impact of the communications programmes of all those involved miscommunications. Another area identified that could be improved relates to tailoring communications and messaging for different groups. Most public engagement takes an 'one-size fits all' approach, which does not consider different circumstance of people. It would be beneficial to devise bespoke communications and messaging which take into account such differences as housing type, tenure, life stage, financial capacity, health, *etc.*

Attributes of good public engagement

There was somewhat of a consensus on the key attributes for public engagement programmes on the building energy efficiency. In general, the responses agreed that public engagement programmes should provide clear information, be easily accessible to all, engage the audience interactively, and offer practical, relevant advice. Specific attributes that found widespread support amongst the respondents include:

- Utilising multiple channels of communication for widest reach.
- Presenting clear, accessible, and honest information.
- Presenting costs and benefits transparently.
- Providing clear guidance on how to act.
- Tailoring modes of communication to address different groups.
- Delivering bespoke messaging that is relatable to specific target groups.
- Working with and through existing community groups and NGOs.
- Avoiding the use of jargon and overly technical language.
- Leveraging real-life examples to communicate advantages of action.
- Using images, animations and videos to promote engagement.
- Adapting messaging to align with specific communication norms and expectations.

5 Principles for engaging the public on EEB and EPCs

5.1 Summation

The work outlined in this report has taken place under the Work Package 4 programme of the EUB SuperHub project, titled '*Stakeholder involvement and social acceptance studies of EUB SuperHub*'. This deliverable presents on the work undertaken with stakeholders to establish the key principles to consider around public engagement and education relating to the EUB SuperHub methodology. It therefore utilised lessons learned from Task 4.1 and took note of the outcomes from the critical review undertaken for Task 4.2 to develop an in-depth understanding of stakeholder perceptions and awareness in main project study areas: Austria, Croatia, France, Germany, Hungary, Ireland, and Italy, and supplemented by additional areas as appropriate. In Section 2, we outline the methodological approach taken for this report, while in section 3 we outlined our understanding of what we mean when we refer to publics and the importance of establishing and maintaining trust when conducting any public engagement and education process. We also highlighted how 'deliberative speak' on the part of the practitioners can significantly impact the degree of public trust in any programme, including education and public engagement, leading to (at a minimum) low acceptability or even outright hostility towards a project. As Hindmarsh and Matthews (2008) have noted, a poorly constructed public engagement framework can prove both ineffective or, at worst, counterproductive. Any perception of hypocrisy or contradiction on the part of practitioners can lead to a chain-reaction of events that sees initial tacit support very quickly shift to one of open opposition (Reed *at al*., 2018). Consequently, in practice it often remains the case that effective public participation still rarely occurs in any meaningful sense (Santos *et al*., 2019).

To avoid such occurrences, it is essential to understand the types of publics one can be expected to engage with. However, it also essential that practitioners understand how their personal attitudes and biases can inform how they approach the public engagement process and which publics they ultimately identify and interact with. We suggest practitioners adopt a more reflexive approach to such processes and actively consider how each stage of their engagement programme either aligns with, or deviates from, the values that initially framed the programme's evaluation criteria. Inherently, there are three primary motivating factors that inform any public engagement undertaking: the first is instrumental, in the hope that such effort contributes to the success of programme/intervention; the second being substantive, which involves an expectation that 'better' public knowledge will somehow 'improve' the level of engagement; and finally normative, with the assumption that he public has a right in decision-making on issues

affecting them (Fiorino, 1990). The discourses found in the literature are reflected in the engagements we conducted with relevant stakeholders for WP4 and reported on in section 4. From this effort, we can suggest the key guiding principles one should adhere to when undertaking public engagement and education relating to the EUB SuperHub methodology.

5.2 Guiding Principles

Each engagement process is very much specific to its own circumstances, audience, location *etc*. Therefore, it should be designed to meet targeted objectives that reflect the needs and expectations of the relevant participants and decision-makers. Bull *et al*. (2010) point to the importance of understanding the specific contexts where the EPE programme is expected to take place. The implementor of the engagement process must carry out a thorough examination of the physical and/or virtual space occupied by the participants and become well informed as to the socio-demographics, cultural norms, economic outlook, government frameworks, political and historical contexts of the space/place they wish to conduct the EPE programme. This subsection explores the key challenges of conducting EPE activities and are presented here as a series of guiding principles which process leaders are encouraged to consider when engaging in public engagement activities. While by no means exhaustive, they do reflect the broad range of experiences associated with dealing with local stakeholders and practitioners of energy certification programmes.

- **Principle #1: Simplicity**

Ensure the planning process is competently executed and appropriate to the needs of participating and nonparticipating stakeholders. Structures put in place to facilitate this should be simple and clearly laid out. If the programme facilitator is unsure of the procedural processes or doesn't fully understand them, this will result in the programme being poorly executed and have a significant negative impact on the expectations relevant stakeholders for future engagements.

- **Principle #2: Honesty**

It is extremely important that facilitators are as honest as possible with participating stakeholders, both in terms of the objectives of the EPE programme itself, but also how they expect those objectives to translate beyond the specific public engagement programme. Barry and Ellis (2011) show how, even when conflict does arise and appears intractable, adhering to deliberative processes can allow conflicting parties the space to recognise and acknowledge certain legitimacy relating of an opponent's perspective. They argue that adopting an open and honest acknowledgement of dissenting voices can lead to greater acceptability of the proposed intervention or project. While the dissenting voices

might not change their minds, those undecided participants will still be assessing the information provided and the actions of the facilitator will be a key component in informing their decision to respond favourably or negatively to the engagement programme.

– **Principle #3: Transparency**

Similarly, transparency is a crucial component of any public engagement programme and is probably the most important factor to consider when trying to secure trust (Wynne, 2006). Probably the most significant obstacle to effective public engagement are the historic experiences communities have had in the past, having encountered less than honest (or poorly delivered) communication from government and corporate actors *etc*. Once trust is lost, it becomes very difficult to regain. If the public trusts that the programme facilitators are actively listening to them and incorporating their feedback, suddenly a space becomes open for them to adopt a more nuanced stance that allows for a more consolatory approach to what was heretofore wholly negative (Aradottir & Hjalmarsson, 2018; Men & Tsai, 2014; Barry & Ellis, 2011). In addition, adopting a respectful attitude that is transparent and openly acknowledges mistakes/weaknesses as they arise is essential for establishing and maintaining good relationships with the majority of stakeholders (Burchell, 2015).

– **Principle #4: Relevance**

If there is a specific place-based dimension to the programme, facilitators must ensure that all relevant information is gathered and analysed to reflect the needs of the targeted stakeholders, and to identify any political and/or cultural tensions amongst the different socio-demographic groupings involved. This should lead to a synthesis of the most relevant information to be shared with the different actors involved and lead to a shared understanding of the roles and expectations of those actors (Chilvers, 2013). In addition, the technical information needs to be tailored to the lived experience of targeted stakeholders, *e.g.*, using overly complicated language that relies on technical jargon will more likely alienate rather than endear certain stakeholders to the programme.

– **Principle #5: Accessibility**

Similarly, the information being shared must be accessible and made available across multiple channels to engage with the more hard-to-reach stakeholders. Relying solely on traditional media and marketing campaigns will not reach say younger cohorts who interact more on social media platforms than with traditional print media for example. Similarly, deploying an information campaign that is heavily dependent on audio-visual content will have the same resonance for those visually impaired stakeholders compared to other cohorts. Samantha Biglieri (2021) provides a useful illustrative example of how this principle can be applied in her discussion on capturing the

experiences of people living with dementia (PLWD) participation in public engagement programmes.

– **Principle #6: Inclusivity**

Any successful EPE programme should foster greater inclusivity to capture a broad a range of voices as possible. For it to have legitimacy, it must comprise representative voices from as many different stakeholders as possible, particularly those who are most often excluded from or occupy more marginalised roles in public policy decision-making (Macnaghten & Chilvers, 2014). Diversity can have as significant impact as representativeness in capturing the breadth and range of opinions required from genuine public engagement (Cormick & Hunter, 2014).

– **Principle #7: Relatable**

Missapplied engagement technics can be almost as damagin as no engagement at all, both of which can lead to a lack of knowledge, the presence of misconceptions, and stigma amongst stakeholders. Again, as with the other principles, the importance of tailoring the most appropriate engagement tools to the needs of each applicable cohort of people should not be understimated, *e.g.*, Seidel et al. (2023) highlight how university scientists can increase their relatability and public engagement using science-in-action video storytelling technics. Indeed, Krauss *et al.* (2022) suggest storytelling can have diverse benefits for both facilitators and stakeholders, promoting learning through accessible formats, boosting self-confidence, and promote more engaged (un/re)learning in the process.

– **Principle #8: Targetted**

Finally, the messaging needs to be targeted to the specific audiences using the social media platform being deployed. For example, the language and messaging used across different platforms will be different, *e.g.*, while relying on more text-heavy messaging may be fine for LinkedIn it will not attract the same level of engagement with users on TikTok, who are looking for a different experience and using different vernacular *etc*. In addition, the type of messaging must reflect the lived experiences and circumstances of the audience in question, *e.g.*, referring to support grants and match funding to encourage investment in solar PV will have less traction with those energy vulnerable households who do not have the socio-economic privileges of their wealthier neighbour. Similarly, providing information to apartment dwellers (who may or may not own their property) on rooftop solar PV will not receive the same level of engagement from these stakeholders compared to those living in a detached dwelling.

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Appendix 1 – Participant Briefing Document

This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 101033916

Participant Briefing Document

Project Overview: European Building Sustainability Performance and Energy Certification Hub – EUB SuperHub is a research project funded by the EU's Horizon 2020 research and innovation programme. The next generation of energy performance assessments and certificates ought to address the transformation into an era where an increasing amount data are available on the operational use of buildings, and the buildings can be observed with ever increasing details via a larger number of stakeholders. The EUB SuperHub project will support the evolvement of the certification process in the EU by development of a scalable methodology to view, assess and monitor the buildings through their lifecycle including in terms of embedded energy, whole life carbon, costs, *etc*.

Potential involvement: The project team wish to engage with building certification stakeholders to develop a better understanding of the energy performance certificates (EPCs) and sustainability certification systems operating in the participating countries. Different participants are invited to contribute to the research in different ways. Potential modes of contribution include: questionnaire surveys, workshops/focus groups and semi-structured interviews, and Delphi-like panels.

What does it mean for me?

- Participation in the study is entirely voluntary and nobody 'has to take part'. Participants must be over 18 years of age.
- Contributions will be anonymous.
- Participants retain the right to withdraw from the study.
    - where data can be linked to a specific participant, participants can withdraw consent at any time during and up to two weeks after the collection of the data – in which case the material will be deleted;
    - where data has been gathered collectively (*e.g.,* focus groups) participants can withdraw any time, but the data collected up to that point will be retained;
    - where data has been gathered anonymously participants can withdraw any time until the data is collected by the researchers.
- Data collected will be used only for this project and follow-on studies. It will be stored securely and not made available to anybody outside of the research team.
- Any physical documents will be stored in locked cabinets in the offices of the research team. The data will be securely stored for a period of ten years before disposal.

Further information about the project: https://eubsuperhub.eu

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Appendix 2 – Consent forms

Consent Form - Surveys

I _____ (Print Name) agree to participate in the EUB SuperHub project.

The purpose and nature of the study have been explained to me in writing

Yes ☐ No ☐

I confirm that I am over 18 years of age and that I am participating voluntarily

Yes ☐ No ☐

I understand that I can withdraw from the survey, without repercussions, at any time, up until I submit the anonymised survey responses.

Yes ☐ No ☐

I understand that data provided to the project will be treated confidentially and that anonymity will be ensured in the write-up by disguising my identity

Yes ☐ No ☐

I agree to disguised anonymised extracts from my survey responses being quoted in any subsequent publications

Yes ☐ No ☐

Signed: ..... Date: .....

This project has received funding from the European Union's H2020 research and innovation programme under Grant Agreement No. 101033916.

Consent Form - Interviews

I _____ (Print Name) agree to participate in the EUB SuperHub project.

The purpose and nature of the study have been explained to me in writing

Yes ☐ No ☐

I confirm that I am over 18 years of age and that I am participating voluntarily

Yes ☐ No ☐

I understand that I can withdraw from the interview, without repercussions, at any time, whether before it starts or while I am participating.

Yes ☐ No ☐

I understand that data provided to the project will be treated confidentially and that anonymity will be ensured in the write-up by disguising my identity

Yes ☐ No ☐

I give permission for my interviews with the researchers to be audio-recorded

Yes ☐ No ☐

I agree to disguised anonymised extracts from my interview being quoted in any subsequent publications

Yes ☐ No ☐

Signed: ..... Date: .....

This project has received funding from the European Union's H2020 research and innovation programme under Grant Agreement No. 101033916.

Appendix 3 – Survey Questionnaire

Project no. 101033916
Project acronym: EUB SuperHub
Project title: European Building Sustainability performance and energy certification Hub
Call: H2020-LC-SC3-B4E-4-2020
Start date of project: 01.06.2021
Duration: 36 months

Survey No 2
WORK PACKAGE 4
T4.3

1. Participant ID (e.g. EUB001)			
2. Date:		**Time:**	

Personal Details

3. What gender do you identify as?

Female ☐
Male ☐
Other ☐
Prefer not to say ☐

4. Age

18–40 years old ☐
40–65 years old ☐
65+ ☐
Prefer not to say ☐

5. What is the highest level of education you have completed?

Primary ☐
Secondary ☐
University ☐
Prefer not to say ☐

6. **Which of these best describes your sector?**

Construction ☐
Real Estate ☐
Planning ☐
Policy ☐
Other ☐

7. Describe your interest in building certification ?

Professional ☐
Student ☐
NGO ☐
Community Group ☐
Other ☐

This project has received funding from the European Union's H2020 research and innovation programme under Grant Agreement No. 101033916.

1 Perceptions of public engagement on energy performance certificates (EPCs)

(a) In your opinion, what role do individuals play in contributing to energy efficiency, and how can they make a difference in their daily lives?

(b) Can you share a personal experience or situation where you actively sought information about energy efficiency for a building, either residential or commercial?

(c) How familiar are you with the concept of Energy Performance Certification (EPC)?

☐ Very familiar
☐ Somewhat familiar
☐ Neutral
☐ Not very familiar
☐ Not familiar at all

(d) Are Energy Performance Certification (EPCs) important to your work? Yes / No

(e) Do you foresee this changing? Yes / No

(f) Do you believe there is a need for increased public awareness regarding energy efficiency and its impact on the environment?
☐ Strongly agree
☐ Agree
☐ Neutral
☐ Disagree
☐ Strongly disagree

(g) Do you think there is a need for clearer and more accessible information on energy efficiency ratings for buildings?
☐ Strongly agree
☐ Agree
☐ Neutral
☐ Disagree
☐ Strongly disagree

2 Pragmatic and innovative approaches to public engagement around EPCs

(a) Have you ever obtained an EPC for a property you own or reside in?

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☐ Yes
☐ No
☐ Not applicable

(b) What sources of information do you trust the most when looking for information about energy efficiency in buildings?

☐ Government websites
☐ Online articles and blogs
☐ Social media
☐ Workshops or seminars
☐ Other (please specify)

If other, please indicate below

(c) From your experience, can you provide example(s) of publicity programmes that highlight EPC and energy efficiency programmes in your country? [*Please provide official name of the programme*]

(d) In your view, what are the most effective communication channels/methods for raising public awareness about energy efficiency and the role EPCs can play in driving energy efficiency? [*Which methods are most effective?*]

(e) In terms of policy and regulations, can you identify any initiatives that have improved public engagement around energy efficiency and EPCs?
[*e.g., are there any laws or initiatives that stimulated a discourse on energy efficiency or EPCs that you are aware of?*]

3 Principles for public engagement and education

(h) From your experience, what public information techniques have worked well in terms of building-related issues? [*Please explain why you think they were effective*]

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(i) Can you provide examples where public information programmes could have been designed better? [*Please explain why*]

(j) Who should lead public engagement in the energy efficiency sector?

Community Groups ☐
NGOs ☐
Industry Professionals ☐
Marketing Consultants ☐
Technical Stakeholders ☐
Other ☐

If other, please indicate below

(k) In your opinion, what are the key attributes for public engagement programmes in the energy efficiency sector?

(l) Of the principles you have provided, what is the key principle that you consider should underpin public information?

This project has received funding from the European Union's H2020 research and innovation programme under Grant Agreement No. 101033916.

Appendix 4 – Interview schedule

Project no. 101033916
Project acronym: EUB SuperHub
Project title: European Building Sustainability performance and energy certification Hub
Call: H2020-LC-SC3-B4E-4-2020
Start date of project: 01.06.2021
Duration: 36 months

INTERVIEW SCHEDULE No 2

WORK PACKAGE 4

T4.2 & T4.3

Interview Notes

• Interviewees should be assured of the confidentiality of the project.
• Informed consent should be obtained from all interviewees.
• Interviews should be recorded, where interviewee gives permission, otherwise detailed notes should be taken.
• Interviewees should be assured there are no right answers, in all cases you are looking for their experiences and/or their personal opinions.
• Questions to be asked are numbered.
• These are semi-structured interviews, the interview schedule is designed as a guide for conversation, not a questionnaire. The interviewer should make sure they elicit a response to all questions below, especially the key topics listed in the checklist at the end. However, an effort should be made to maintain the natural flow of the conversation.
• Allow the interviewee scope to expand upon topics that are of interest to them, while possibly spending less time on others. You may also find that in answering one question, the interviewee will also give a response to another which you have not yet asked. In this case, there is no need to formally address this topic again.
• The interviews should take no more than 60 minutes.

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INTERVIEW

Section 1 – Context

a) What is your profession?
   Prompts: Can you provide some information about yourself? What do you do for a living?
b) What sort of work does your organisation normally undertake?
   Prompts: is it specialist type work or more general?
c) What is your involvement in this work?
   Prompts: what is your role within the organisation
d) Is understanding building energy performance an important part of your work?
   Prompts: is building performance your main area of expertise?

Section 2 – Perceptions of public engagement and energy performance certificates (EPCs)

a) In your opinion, what role do individuals play in contributing to energy efficiency, and how can they make a difference in their daily lives?
b) Can you share a personal experience or situation where you actively sought information about energy efficiency for a building, either residential or commercial?
c) Are EPCs important to your work?
   Prompts: do EPCs help you carry out your work? Are EPCs helpful for communicating with your client/customer?
d) Considering your own experiences, can you identify any specific initiatives or projects where energy performance certificates had a positive impact in local acceptance of the project?
   Prompts: How did the project leads engage the public?

Section 3 – Pragmatic and innovative approaches to public engagement around EPCs

a) From your experience, can you provide example(s) of publicity programmes that highlighted EPCs and energy efficiency programmes, which were both effective and positively received by the public?
   Prompts: *BREEAM, LEED, BER (e.g., in Ireland)*
b) In your view, what are the most effective communication channels/methods for raising awareness about energy efficiency and the role EPCs can play in driving energy efficiency?
   Prompts: *how should one go about doing public engagement? What works and what does not work?*
c) In terms of policy and regulations, can you identify any initiatives that have improved public engagement around energy efficiency and EPCs?
   Prompts: *e.g.,* was there any laws or initiatives that stimulated a discourse on energy efficiency or EPCs that you are aware of?

Section 4 – Principles for public engagement and education

a) From your experience, what public information programmes have worked well around building issues?
b) Have you any examples where such public information programmes could have been designed better?
c) Who should lead public engagement in this sector?
d) In your opinion, what are the key attributes for public engagement programmes in this sector?
e) Of these, what is the key principle that should underpin public information?