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Energy Citizenship International Expert Workshop

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Summary

This deliverable presents the proceedings of an international workshop with leading scholars on energy citizenship. Organised in Brussels and comprising two days (31/05/22 - 01/06/22), the workshop featured eight interventions from invited experts, including four members of the EnergyPROSPECTS Advisory Board. The deliverable presents the set-up of the workshop, the position paper that was written to stage the discussions, as well as short reflections on the 5 sessions of the workshop. Next to the refinement of the position paper, the workshop proceedings will inform the further development and consolidation of the conceptual framework (Tasks 2.5 and 2.6).

1 Introduction

This deliverable presents the proceedings of an international workshop with leading scholars on energy citizenship (ENCI). Taking place in Brussels (31/05/22 - 01/06/22), the workshop entitled “Energy Citizenship; Ideals, Ideology and Ideal-types in the Energy Transition” is also the title of a conference paper written by the WP2 team, a conceptual exposition that served as a starting point for the workshop. The paper synthesizes several key themes in the conceptual work of EnergyPROSPECTS (EP) thus far (e.g. the understanding of ENCI in the context of an advanced phase of transition, the comprehensive understanding of different ideal-types beyond the normative ideals of active and empowered ENCI, the relevance of inter-regional differences and translations of ENCI, the relevance of intermediaries, transactions and empowerment processes).

Aiming to foster discussion, scholarly exchange and critical examination of EP assumptions, the workshop comprised eight interventions from invited speakers. Based in Ireland, France, Portugal, Canada, United Kingdom, Germany, Spain, Switzerland, these scholars cover a great range of different ENCI contexts. More importantly, the invited presentations comprised a great range of disciplinary perspectives and thematic angles that were not represented in the conceptual framework development thus far (e.g. practice theory and work on the cultural dimension of sustainable consumption; Physics; Degrowth; Science & Technology Studies, etc.). Each contribution challenged, elaborated or reframed the aspects of ENCI research as discussed in the conference paper: Normative-ethical aspects, critical social-theoretical aspects, as well as operational-empirical aspects. This external validation and probing of key assumptions will inform the further development consolidation of the conceptual framework (Tasks 2.5 and 2.6).

The deliverable presents first the set-up of the workshop (**Chapter 2**), followed by the position paper (**Chapter 3**), and a series of short reflections on each of the 5 workshop sessions (**Chapter 4**).

2 Workshop set-up

This chapter describes the scientific approach and the organisational set-up for the workshop (**section 2.1**), as well as the program of the workshop (**section 2.2**).

2.1 Scientific approach and organization

The international workshop was set up to bring in leading scholars, to foster discussion, scholarly exchange and critical examination of EP assumptions. Based in Ireland, France, Portugal, Canada, United Kingdom, Germany, Spain and Switzerland, the invited speakers (Cf. Annex for biographies) covered a great range of different ENCI contexts. The workshop gathered various perspectives not represented in the conceptual framework development (e.g. practice theory and work on the cultural dimension of sustainable consumption; Physics; Degrowth; Science & Technology Studies, etc.). Comprising 4 members of the EP Advisory Board, the invited presentations constituted a series of interventions from ‘critical friends’.

The workshop served to explore and critically examine key assumptions about ENCI as developed in the conceptual work thus far. This comprises themes such as the understanding of ENCI in the context of an advanced phase of transition, the comprehensive understanding of different ideal-types beyond the normative ideals of active and empowered ENCI, the relevance of inter-regional differences and translations of ENCI, the relevance of intermediaries, transactions and empowerment processes). This common focus on key assumptions has been elaborated in a multi-authored position paper: “Energy Citizenship; Ideals, Ideology and Ideal-types in the Energy Transition”. This paper (**Cf. chapter 3**) calls attention to three interrelated clusters of challenges in ENCI research: These pertain to, 1) the multiplicity of ideals; 2) the performativity of idealizing social constructions and 3) the associated methodological challenges of operationalizing the concept into concrete empirical observables and relevant ‘cases of ENCI’. Asking all 8 invited speakers to somehow relate to the paper, the workshop has generated a range of insights, angles and considerations to inform the

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further development and eventual consolidation of the conceptual framework¹.

Organisational specifics of the workshop are the following:

- **Schedule:** Taking place over 1.5 days, the workshop comprised 5 sessions of 1.30-1.45 hours in length. The sessions contained 1, 2 or 3 presentations, depending on the availabilities of invited speakers. Short reflections on these sessions are presented in Chapter 4.
- **Hybrid format:** Four of the eight invited speakers presented in vivo, four of them contributed through online participation. Depending on availabilities/in vivo presence of invited experts, some sessions were more screen-oriented than others.
- **Debate format:** The workshop and the position paper served to stimulate critical academic debate, rather than consensus on solutions and ENCI understandings. The experts were invited to help diverge, and explore. Accordingly, project members have been asked to take a similarly explorative attitude, rather than 'defending' our views and our position paper against critique.
- **Activating/participative format:** The invited experts have been asked to open up discussion. Project members have been asked to react, ask questions, take discussions further.
- **Proceedings:** The Powerpoint/PDF presentations and the audio recordings of the presentations have been gathered on the project portal. The short reflections on the 5 sessions (Chapter 4) will be disseminated in the form of blogs as well.

¹ The deliverables 2.5 and 2.6 are scheduled for M28 and M36, respectively. They will also take into account empirical advances and thematic analyses of work packages 3, 4 and 5.

2.2 Workshop program

Tuesday 31/05/22

Time	Agenda item	Format
9.-9.30	Consortium Partners	Preparation for workshop
9.30- 11.15	Session 1:	<p>Basil Bornemann: Energy citizenship: some reflections on the construction and embedding of the concept</p> <p>Henrike Rau: Beyond the individual: Researching energy citizenship through the lens of everyday practices</p>
11.15- 11.45	Coffee break	
11.45 - 13.15	Session 2:	José Halloy - Do we really have an energy problem?
13.15- 14.30	Lunch	
14.30- 16.15	Session 3:	<p>Andy Stirling: Framing Energy Citizenship: from eagle- to worm-eye views</p> <p>Susana Batel: The green energy transition - Which implications for energy citizenship and human rights?</p> <p>Gary Goggins: The importance of culture in advancing sustainable energy policy and practice</p>
16.15- 16.30	Coffee break	
16.30	Formal Close for Day 1	

Wednesday 01/06/2022

Timing	Agenda item	Format
9.30-11.00	Session 4:	Mario Pansera: Growth, post-growth, degrowth or collapse? Reflections on the technological limits to energy citizenship
11.00-11.15	Coffee break	
11.15-13.00	Session 5:	Emmanuel Raufflet: Perspectives on energy citizenship and transition
13.00	Close Day 2	

3 EnergyPROSPECTS position paper

3.1 Abstract

Energy Citizenship; Ideals, Ideology, and Ideal types in the Energy Transition²

Authors: Pel, B., Debourdeau, A., Kemp, R., Dumitru, A., Vadovics, E., Schäfer, M., Markantoni, M., Schmid, B., Fahy, F., Fransolet, A., Thalberg, K.

Abstract

The importance of social and institutional innovations in the energy transition has become increasingly evident in recent years. The quest for new institutional arrangements and social relations has been accompanied by the proliferation of new concepts: Energy democracy, energy justice, energy poverty and energy literacy are interrogating and opening up the social relations that carry the energy system. These concepts serve analytical purposes, but they also provide tools for critical diagnosis and transformative action. Scholars, activists and politicians deploy these terms to introduce new social constructions, counter-narratives and imaginaries of an energy system that – by certain standards – is more sustainable and organised in a just manner. A particularly prominent example of these new imaginaries is ENCI. Coined originally as an emancipatory concept and as an alternative imaginary of capable and involved citizens, it has also been proven to be vulnerable to ideological appropriation and narrow instrumental interpretations. The tendencies towards responsabilisation, exclusion and reproduced power inequalities are well-known in studies of participatory governance, empowerment and sustainability transitions.

This paper argues however that ENCI should not be mistaken for yet another buzzword. Rather than rejecting the concept, it needs to be taken seriously as an emerging governmentality and as a set of ideals that are meaningful to people that try to make sense of the current phase of the energy transition. Our critical-constructive analysis identifies three interrelated clusters of challenges in ENCI research: These pertain to, 1)

² Accepted for [EU-SPRI](#) (Bonno Pel presents) and [ERSS](#) (Ben Schmid presents) conferences. To be submitted this Summer to [Energy Research & Social Science](#).

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the multiplicity of ideals; 2) the performativity of idealizing social constructions and 3) the associated methodological challenges of operationalizing the concept into concrete empirical observables and relevant ‘cases of ENCI’. This operationalization is arguably a crucial step in the scientific-political-societal co-production of models and best practices that are conducive to the thriving of sustainability-oriented, democratic or otherwise desirable forms of ENCI.

3.2 Introduction

The energy transition involves innovations in multiple elements of socio-technical energy systems. Among those, the importance of social and institutional innovations has become increasingly evident in recent years (Wittmayer et al. 2020). The quest for new institutional arrangements and social relations has been accompanied by the proliferation of new concepts such as energy democracy (Wahlund & Palm 2022), energy justice (Jenkins et al. 2016), energy poverty (Bouzarovski et al. 2012) and energy literacy (Chodkowska-Misczuk et al. 2021). Scholars, practitioners, activists and politicians deploy these concepts to introduce new social configurations, counter-narratives and imaginaries of a re-defined energy system that is organised in a more – by certain standards – ‘sustainable’ and ‘just’ manner. Therefore, apart from their analytical purposes, they also inform critical diagnosis and transformative action: They challenge the social relations that sustain the energy system, and propose ways to change them.

A particularly prominent example of these new concepts is energy citizenship (hereafter ENCI). Coined originally as an emancipatory idea and as an alternative imaginary of capable, energy aware, involved citizens (Devine-Wright 2007), it has also been proven to be vulnerable to ideological appropriation and narrow instrumental interpretations (Lennon et al. 2020): The narrative of empowered, self-organizing citizenship becomes constraining, the less means and capacities one has to become that active citizen. Such tendencies towards (over demanding) responsabilisation, exclusion and reproduced power inequalities are well-known in studies of participatory governance, empowerment and sustainability transitions (Swyngedouw 2005; Taylor Aiken 2019). Meanwhile, ENCI remains under the cloud observed earlier for community energy (Radtke & Ohlhorst 2016) and for political participation more generally: It tends

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to be enacted mainly by particular social groups, notably the more affluent and the higher-educated citizens.

Against this background of reasonable doubts, this paper argues that the ENCI concept should (nevertheless) be taken seriously. Rather than dismissing it as yet another ‘buzzword’, it deserves attention as an emerging governmentality (Rose et al. 2006) that introduces new roles, responsibilities and identities of individuals. Ringholm (2022) underlines for example how ENCI can be appreciated as an initiative towards institutional innovation. Likewise, ENCI is relevant and as an emergent knowing-of-governance (Voß & Freeman 2016): ENCI exists as concrete activities of citizens, but also as a set of shared assumptions across the energy field about the importance of energy transition governance through citizen-led governance, civic duties, and individual rights and capabilities. This individual-focused imaginary of change distinguishes ENCI from energy democracy discourses (Wahlund & Palm 2022).

As far as it is adopted widely, and it seems to be case that research projects, governments, NGOs as well as energy suppliers (Figure 3.1) have developed a fondness for the discourse, ENCI discourse creates new perspectives for, and acknowledgement of, the roles and responsibilities of citizens in the energy transition. Moreover, other than similar knowings-of-governance such as ‘social innovation’ or ‘transition’, ENCI is a normatively pronounced concept. It corresponds with a set of ideals, often rooted in long traditions of citizenship and community action³, that are meaningful to individuals and organisations who try to deal with the current advanced phase (Markard 2018) of the energy transition.

³ So although the term and concept ENCI is fairly new and often not known and used by practitioners, the practices of ENCI are much older. They are related to a lot of different ideals, concepts and practices (e.g. sustainable communities, social innovation, active citizenship). Possible question for workshop: *Is ENCI to be considered ‘new’? Why (not)?*



Figure 3.1: 'In which phase of the energy transition are you?' Advertisement (in Dutch) of energy supplier Engie (Belgium). Web capture 28/05/22

Given these multiple meanings and uses of the ENCI concept, it is clearly not a straightforward research subject. It indicates both a set of energy transition ideals and ideologies as well as a set of concrete energy-transitioning activities. It is both a label and an empirical phenomenon. Both of these aspects need to be taken seriously. When neglecting the former, ENCI research is vulnerable to drifting into uncritical empiricism and simplistic instrumentalist accounts in which ENCI features as the unequivocal solution to certain problems. When neglecting the latter, ENCI could remain stuck in abstract and practically irrelevant critiques.

Our critical-constructive analysis therefore identifies three connected challenges that ENCI research needs to address⁴ to do justice to its research object. These pertain to:

- 1) the multiplicity of ideals, and the need for a **normative framework**;
- 2) the challenge to the address the gaps that exist between idealizing social constructions and ENCI practices, i.e. the need for a **critical social-theoretical framework**;
- 3) the methodological challenges of operationalizing the concept into concrete empirical observables, relevant 'cases of energy citizenship' and insights into key conditioning factors. *What are the societal conditions conducive to the thriving of engaged, sustainability-oriented, democratic or otherwise desirable forms of energy citizenship?* The latter indicates the need for an **empirical-operational**

⁴ In our ongoing research we have developed our own assumptions, empirical observations, methodological choices and theoretical framings regarding these three requirements, and we present some of them in this Viewpoint paper. Importantly, this paper is not meant to advocate our particular solutions and approach. It serves to identify the key challenges of ENCI research more generally.

framework.

The latter operationalization is arguably a crucial in the scientific-societal co-production of energy citizenship models and best practices: *What is (and isn't) energy citizenship? Is it more about energy or more about citizenship? Where can we find it?*

The key point is that ENCI research needs to develop coherence between these three frameworks: The considerations of normative aspects ('ideals'), the understanding of the gaps between ideals and practice ('ideology') and concrete empirical investigation ('ideal types') need to inform each other.

3.3 Ideals: ENCI as crossroads of political projects

ENCI is a relatively new concept – even for those who apparently have been practicing it for a long time already (Pel et al. 2022). Certain ethical values and political ideals of energy citizenship have been around for a longer time. This reminds of the political ideals associated with the concept, and of the normative dimension of ENCI research. This normative dimension needs to be handled with care: ENCI is not a normatively well-defined and widely agreed upon notion, but rather a crossroads of ethical orientations and political projects. ENCI research therefore requires a compass, a normative framework: *Which are the key ideals that define ENCI?* And paraphrasing Solis-Navarrete et al. (2021): *What do we consider not ENCI, or false ENCI or non-desirable ENCI?* A normative framework should include a specification of 1) relevant ideals/ethical commitments; 2) the actors upholding them, and 3) a consideration of the respective transformative and reformative ambitions.

Featuring as a research priority in the recent EU H2020 program⁵, ENCI can be retraced to mission-oriented innovation policy and attempts to meet 'grand societal challenges'. This science-policy context raises research questions about the conditions and empowerment practices conducive to the flourishing of energy citizenship. In this context, ENCI is associated with goals of sustainability, democracy, justice, inclusivity



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and social equality. In light of these widely shared values, ENCI is often positioned as a set of unequivocally good behaviours that needs to be stimulated (Image 3.2): *How to support ENCI, and how to empower European citizens towards ENCI?*

Image 3.2: ENCI as a set of unequivocally good behaviours to be stimulated.

Similar questions have guided recent research programs designed to stimulate, for example, social innovation, renewable energy prosumerism, or circular economy. As Moulaert et al. (2017) evaluate critically with regard to these social innovation research programmes, the prevailing instrumental approaches underestimate the normative complexity at hand – social innovation is not a bolt-on instrument to support technological innovation (see also Wittmayer et al. 2020). Furthermore, the promises of unequivocally good innovation may be self-defeating: Kovacic et al. (2019) expose in detail how the similarly ‘sustainable’, profitable, empowering concept of the circular economy is marking an ideal that cannot be realised – unless one is doing magic with circularity indicators. Unsurprisingly therefore, these concepts of unambiguous and multi-dimensional progress are after some time dismissed as vague ‘buzzwords’. The concepts are discarded, after going through the familiar trajectory of confusion, deconstruction, ridicule and rejection. Particularly heavy critiques have been launched against the *normative* vagueness of these concepts – *what, precisely, is ‘prosumerism’ good for* (Brown et al. 2020)? *What is social innovation good for, beyond the intermediate goals like collaboration and participation* (Ziegler 2017)?

Is ENCI such an ‘empty signifier’ as well? Various studies have aimed to map the meanings given to it in practice (Rodhouse et al. 2020). By asking practitioners in the energy field what the concept means to them, we generated the following word clouds (Figure 3.3) in Germany, Hungary, Belgium (Wallonia) and Spain (Galicia).



Figure 3.3: ENCI interpretations in Belgium, Spain, Germany and Hungary

The word cloud illustrates⁶ the following points.

- The ENCI concept (in the various European non-English languages) is used only seldomly by practitioners. Whilst generally endorsed, sometimes it is even mistrusted, or associated with particular social strata rather than with the citizenry as a whole. The latter became apparent in our Hungarian workshop.
- The concept appears to be relevant and motivating, at least to practitioners in the energy field. It is associated with ideals of democratization, energy justice, fairness, sustainability, and awareness-raising for the energy transition.
- Most importantly, ENCI appears to be associated with a multitude of ideals, ethical orientations and political projects, promoted by citizens, associations, governments, consultants, researchers and energy suppliers. Promoted by different actors for different reasons, ENCI is at the crossroads between projects of democratization, appeals for participatory decision-making, environmental awareness, consumer awareness, energy security, as well as the opening up of new markets for the self-reliant consumer.

⁶ Illustrating, as we are not presenting an empirical study but a conceptual contribution.

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ENCI is thus far from normatively empty or vague. On the contrary, it is a normatively rich and complex notion. ENCI discourse is combined with various adjacent notions (energy democracy, energy communities, energy justice, energy literacy, energy poverty, but also the – not specifically energy-oriented - discourses on active citizenship, environmental citizenship, resilient citizenship, empowerment, citizen awareness, prosumerism, social innovation, and various discussions on the ‘new social contract’). Some of these examples remind how ENCI discourse builds on more longstanding discourses on citizenship (Ringholm 2022). Overall, these adjacent notions indicate a broad variety of ideals.

A normative framework should arguably also be specific about *whose* ENCI ideals the research is focusing on. The discourse is co-produced by different actors: Horizon2020 research programmes, European, national, regional and local-level policies, the transformation narratives of NGOs and social movements, the professional field of renewable energy technologies, and various expressions in the visual culture (See image 3.4) of commercials, arts, and social media.



Image 3.4: ENCI in cultural representations: Energy Autonomy (Carl Fechner)

Each of these ENCI communications emphasise particular aspects, and they juxtapose ENCI against various adjacent notions:

- **Beyond the passive energy consumer.** Devine-Wright (2007) coined ENCI as a counter-imaginary to challenge the (sometimes self-fulfilling) assumptions of

the passive, 'deficient' energy consumer and to move beyond deficit perceptions of publics.

- **Beyond commercialised prosumerism.** The adjacent notion of (renewable energy) prosumerism has come under a cloud. This much-celebrated move towards decentralised energy systems has proven vulnerable to commercialization (Brown et al. 2020; Lennon et al. 2020). ENCI is in this regard a reassertion of communitarian values of responsibility, trust and reciprocity.
- **Beyond 'token participation'.** Discussions on participatory decision-making have frequently pointed out the need to reach beyond participatory arrangements that are formally participatory but de facto providing little voice to citizens. ENCI fits in these attempts to deepen, or radicalize, participation. It calls attention to practical, material participation, often implying immediate investments and gains.
- **Beyond expert-led transition.** Some accounts of ENCI underline how it revolves around expertise, know-how, awareness, and energy literacy. Other than as a matter of democratic voice or of environmental impacts, ENCI is then taken as an ideal of emancipation, of re-appropriation of technology, and of changes in the relations between expert and laymen.
- **Beyond energy-dependency.** The Ukraine crisis has reminded all Europeans of their (material and political) energy citizenship. In that context, ENCI indicates ambitions to reduce the dependence on politically mistrusted energy suppliers. Apart from the above considerations and the general considerations of sustainable energy production, this political dimension marks how ENCI can be promoted for reasons only indirectly related to either energy or citizenship.

There are thus good reasons to take an affirmative stance towards this fuzzy concept. ENCI bundles political ideals that are relevant to various people and organizations. Beyond the specification of ideals and the actors inscribing them into the concept, a third aspect to consider is a difference that cuts through the various ENCI understandings: The concept is sometimes used along a transformative logic, i.e. to mobilize resistance against the deep power inequalities that continue to define the

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energy system and the energy transition. Yet on the other hand there is also a rather pragmatic, reformative line of ENCI discourse: On these accounts it appeals to basic, widely shared, traditional values of efficiency, pragmatism, assuming one's responsibilities, the roles of the public in energy transitions and collective maintenance of collective goods like the energy system. This divide between transformative and reformist ideals indicates the need for critical-theoretical engagement with ENCI.

3.4 Ideology: Beyond idealizing social constructions

It is important to conduct ENCI research with a framework that is explicit about the normative ideals and ethical essences of the term. Yet this only works well when minding the gaps that exist between ideals and practice, essence and process. Lennon et al. (2020) usefully indicate how the imaginaries of energy citizenship and energy prosumerism can turn from empowering narratives into disempowering ones: They introduce responsibilities and expectations of contributions to the energy transition that not everybody is in the position to fulfil. Energy *citizenship*, in contrast with the idea of energy *communities or energy democracy*, refers explicitly to individual rights, duties, resources and capabilities, and political participation of *individuals* (Wahlund & Palm 2022, Cf. previous section). ENCI – as far as it has become an influential discourse – is a strongly performative and normalizing notion. One example of its performativity is this ubiquitous question: *Have you, dear citizen, already switched back your thermostat?* Importantly, ENCI discourse develops along with technologies that allow citizens to see how other household members are adjusting that thermostat – this comes with blends of care and control (Sovacool et al. 2021). Furthermore, the appeals to civic responsibilities become more pressing as long as it is primarily the landlord, the electricity supplier, or the national and local government setting the controls. ENCI ideals cannot be fulfilled single-handedly by individuals – they are realised in spaces formed around techno-scientific objects (Latour 2005).

ENCI research therefore needs to work with a *critical social-theoretical* framework as well. This means being sensitive to the contradictions between ENCI ideology and ENCI practice. It means exploring the societal conditions that ENCI imaginaries and practices are shaped by. It means being attentive to the ways in which ENCI discourse – including the adjacent notions outlined above – is itself shaping society. A key task for a critical-

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theoretical framework for ENCI research is to reach beyond the idealizing social constructions and the associated ideal-types: The ideals of emancipated, active citizens may encourage individuals, but they also idealize and create expectations of individuals ‘doing their part’.

There are many ways in which research can silently reproduce naïvely optimistic, empirically misguided or even over demanding and as such disempowering assumptions. A particular difficulty for ENCI research – and for similar ‘mission-oriented’ research – is that there are various incentive structures and inclinations of researchers to focus on the best practices, the immediate associations with certain pioneering innovators, and the stock images of beneficial innovation through which everybody wins (Godin & Vinck 2017).

ENCI research should be fixated less on such *manifest* cases (Pel & Kemp et al. 2020). It should shed more light on the relatively mundane and less heroic energy citizenship cases. Well-known manifest forms of ENCI are the politically engaged citizens, organised citizen summits, the environmentally conscious consumers, and the citizens collaborating and associating in energy communities. These are the ENCI hits one gets through Google images (Cf. Figure 3.1). Yet these recurring (and perhaps over-exposed) examples are arguably only a subset of the energy citizenship as it exists in 2022. In the near and distant future this picture will change further. The societal context has evolved significantly since the early ENCI formulations of Devine-Wright (2007). ENCI is arguably more diverse than the typical attempts to create a ‘dialogical democracy’ as described by Callon et al. (2009:225). ENCI develops in the context of an energy transition that has moved well beyond its initial stages. This also means that a broader range of individuals becomes involved, and that ‘followership’ becomes as important as leadership (Geels 2021). It means that individuals struggling with eco-powerlessness (Kennedy and Givens 2019) become more important. Similar to the analysis of Ekman & Amnå (2012), it is useful to look beyond the tip of the iceberg of ‘manifest’ political participation. Beyond the actions of civic leaders and pioneers, it is important to consider more mundane forms of energy citizenship. For example, Ryghaug et al. (2018) call attention to the new technological affordances through which citizens rather silently shift into more active forms of energy citizenship. Making invisible energy visible, these technologies evoke increased awareness and environmental action

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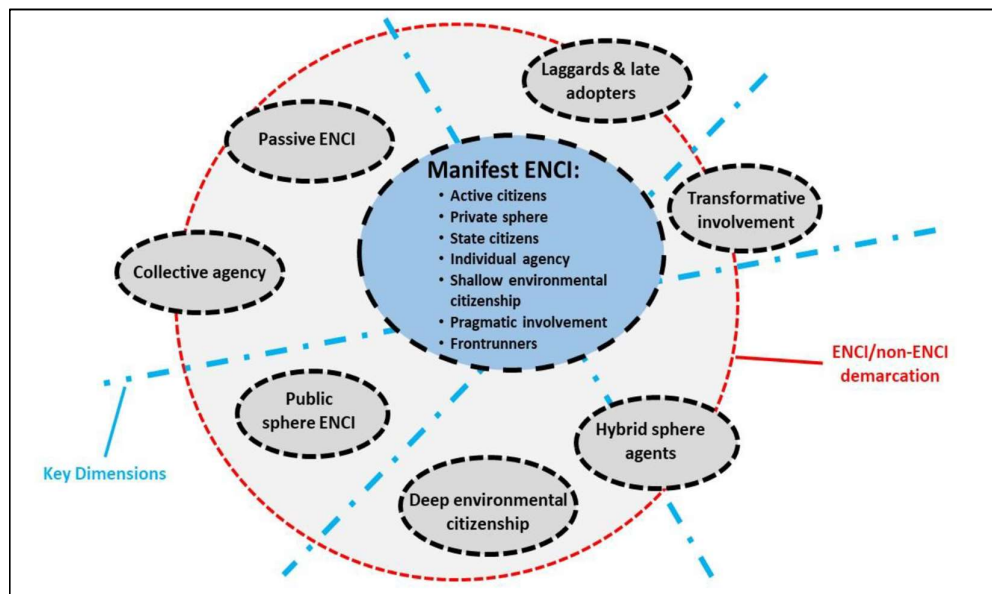
(Marres 2012).

Addressing the gaps between ENCI ideals and practice, a critical social-theoretical framework should also disclose the range of *latent* ENCI forms that exist alongside the prominent, relatively more ‘manifest’ ones. This general insight is not easy to operationalize⁷ (Cf. next section on this important aspect of ENCI research), but the general striving to ‘look beyond the tip of the iceberg’ (image 3.5) is in itself straightforward.



Image 3.5: Critical social-theoretical framework: ENCI beyond the tip of the iceberg

Figure 3.6 sketches how we ourselves have identified a range of these ‘latent’ forms. They are the relatively underexposed counterparts to seven forms of relatively more



⁷ Our project has set itself this challenge in its ambitious project proposal.

prominent, manifest ENCI:

Figure 3.6: ENCI: manifest/latent forms along seven key distinctions (Pel et al. 2021:61)

Latent energy citizenship can arguably be found in the following seven categories:

- 1) **Passive ENCI.** The political ideals of energy citizenship tend to assume a certain active, engaged, empowered form of citizenship. Its counterpart of ‘passive’ ENCI would then appear to be an oxymoron. Yet this is too simple, considering that activity presupposes activation processes (Pel et al. 2016). The longstanding theorisation of citizenship has in fact shown certain shades of grey. One can think of Dobson's (2003) account of Bryan Turner (1990), ‘A Theory of Citizenship’, in which both the active/passive and top-down/bottom-up distinctions are underlined as key dimensions of citizenship. ‘Passive ENCI’ also seems to correspond roughly with various forms of ‘latent’ political participation, as pointed out by Ekman and Amnå (2012: 287-288). Examples of this are blank voting or non-voting, and more generally the various politically behaviours of citizens that *on the surface* appear semi-political or non-political. One could similarly consider ‘passive’ citizenship as the lowest steps on Arnstein’s famous ‘participation ladder’. ‘Passive’ ENCI usefully calls attention to the citizens who have not even started mounting Arnstein’s ladder – whether due to disempowerment, disillusionment, or disinterest. Image 3.6 by the Norwegian artist Hariton Pushwagner exemplifies the visual discourse on ‘passive’ energy citizenship, which exists alongside the abundant images that express the active forms (Image 3.7).

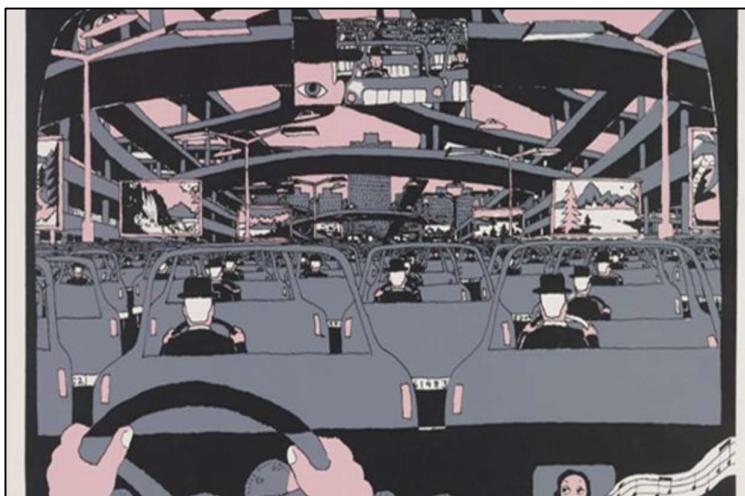


Image 3.7: Passive Energy citizenship (Source: Pushwagner – ‘Soft City’)

More generally, ‘passive’ ENCI is a complex remainder category. It arguably indicates individuals with limited capacities, motivation and action, who supposedly need to be ‘nudged’⁸ into ENCI. Yet what to think of those citizens who are actively involved with the energy transition, yet not in ways immediately in line with prevailing ENCI political ideals and ethical commitments? The Yellow vest movement is but one example of such active citizens – whose actions have often been characterised as undermining and counteractive.

- 2) **Collective ENCI.** Who exerts energy citizenship? The individual citizen could be considered the default understanding (Wahlund & Palm 2022)– citizens vote individually, for example, and they have rights as individuals. Also from the psychological point of view one can consider how the empowerment into ENCI revolves around individual motivations, behaviours and identities. From the political science point of view, it is also very relevant that political participation, and ENCI is arguably a form of it, is often starting from the rights and duties of individuals (Ekman & Amnå 2012). However, many of the ENCI ideals are hinting at groups, and *embedded* individuals. The associated ideals like energy democracy, energy justice and community-based energy seem to suggest that ENCI can be exerted by collectives like households, families, neighbours, communities, and companies. It seems reasonable to understand ENCI broader than in terms of the manifest, atomistic-individual forms, and acknowledge collective forms of ENCI and embedded energy individuals. This fits with the transactional perspective in social and environmental psychology, which incorporates interactions with the spatial, physical, and material dimensions of contexts as key to human agency and human action (Altman 1992; Bronfenbrenner 1974).
- 3) **Public sphere ENCI.** The political ideals of energy citizenship – as expressed, for instance, by policy-makers and EU-Institutions – seem often to embrace the political agency of individuals and groups within the boundaries of the private

⁸ Started up by two social psychologists, the company ‘Bureau Duwtje’ (‘little push’) produces amongst others doormats with the ‘gas free’ welcoming text as seductive message. [Mensen laten doen wat je wil? Draai eens aan één van de vier gedragsknoppen - NRC](#)

sphere. Yet there are also relevant counterparts to this ‘manifest’ side of ENCI. Traditionally, both liberal and civic republican approaches of citizenship consider it even as a strictly public matter – the private sphere has to remain private, and cannot be part of citizen life. ENCI could thus be taken to comprise relatively latent ENCI practices as enacted in the public sphere: Individuals acting on ENCI ideals in schools, or in the workplace - there is also ENCI in universities. Furthermore, also the material side of ENCI gives reason to not confine ENCI to its relatively prominent private sphere manifestations – the very boundaries between public and private spheres are becoming more porous (Van Veelen 2018).

- 4) **Hybrid sphere agency.** When Devine-Wright (2007) formulated ENCI as a political ideal, it was juxtaposed against the figure of the passive consumer. Along this logic, energy citizenship can indeed be considered the institutional innovation (Ringholm 2022) counterpart to the *business model* innovation that renewable energy prosumerism revolves around (Brown et al. 2020). The view of ENCI as primarily a citizen-state relationship has recently become more prominent as governments are calling upon ENCI behaviours to reduce dependency on Russian exports. Against this backdrop, ENCI as exerted in the hybrid institutional sphere remains relatively latent. It seems important to acknowledge these ENCI forms, however, considering for example how local energy cooperatives are driven by *mixed* motivations and *multiple* institutional logics (Hicks & Ison 2018). In similar vein, ENCI research should consider how various intermediary actors and boundary spanners are not only supporting ENCI, but also arguably constitute forms of ENCI themselves.
- 5) **Deep environmental citizenship.** ENCI is often considered as a specific form of *environmental* citizenship. This understanding is prominent in the political programs that consider it a lever towards a transition towards sustainable energy. It is hard to say which forms of environmental citizenship prevail in ENCI discourse – the global consensus on the need for ‘sustainable’ energy hides this from view. Yet what does transpire through the various communications is that ENCI is sometimes taken as *shallow*, and sometimes as *deep* environmental citizenship (Stern 2000). Shallow environmental citizenship lacks the profound

shift towards ecocentric worldviews and values. In these shallow forms of environmental citizenship, ENCI stays within the realm of declared intent – the willingness, endorsement and ideological adherence to ENCI ideals as often measured in surveys. Taking ENCI between these shallow forms of declared ideals, we should arguably raise the bar, and limit ENCI to *deep* environmental citizenship (ENCI as principled internalization as environmental impacts). Yet how high can we raise the bar, given the argued need to disclose the broader range of ENCI ‘below the tip of the iceberg’?

- 6) **Transformative involvement.** ENCI is quite commonly taken to refer to a rather pragmatic involvement in the energy system, in which, for instance, joint ownership is viewed as a functional aspect. The policy discourses on ENCI emphasise participation in decision-making processes on energy projects, and various concrete actions – ranging from home insulation to initiatives towards renewable energy prosumerism. These concrete activities can be assessed for their costs and their sustainability impacts. Representing the tangible, consequentialist side of ENCI, these pragmatic forms are prominent in the newspapers (Image 3.8). This pragmatic understanding of ENCI is reasonable. Early accounts like Devine-Wright (2007) already characterize ENCI as a shift from ‘deficient’ to knowledgeable, capable, self-organising and practically effective citizens.

However, beyond these manifest pragmatic forms there are also less visible counterparts to consider. Armstrong (2020:2) indicates for example that public involvement in the energy system often transgresses the confines of specific projects: *“Instead of looking at an individual project, regulation, or policy in its own right and the local effects, mobilised publics and social movements may approach them from the perspective of broader energy transition goals and climate change.”* Furthermore, Taylor Aiken (2019) highlights how governmental programmes towards energy communities are prone to instrumentalising approaches, neglecting the longing of involved citizens for community, solidarity, authenticity, and for an altogether less rationalist mode of handling energy provision. In fact, the less pragmatic-utilitarian and more explicitly counterhegemonic forms of ENCI are not that latent anymore: This transformative ENCI has been documented in literatures on grassroots innovation

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(Smith et al. 2016) and social innovation (Wittmayer et al. 2020), amongst others. What these transformative accounts typically emphasize, is that the decarbonisation targets are not the only thing that matter – and that democratization, justice and reconfiguration of power relations are urgent transformative goals in their own right (Cf. Stirling 2014). In summary, there is thus a broader range of transformation-minded ENCI to take into account – beyond its relatively more visible and visualised pragmatic forms.



Figure 3.8: Pragmatic involvement in the energy system. Source: le Soir (2021)

7) **Laggards and late adopters.** ENCI, in its various idealised forms, corresponds with the ‘early adopters’ of innovations, the so-called ‘frontrunners’ in transitions, the pioneers, the trend-setting citizens. On the scale of countries, it also appears to refer to the guiding, leading member states in the EU that have somehow ‘advanced’ in developing energy citizenship. The frontrunners and laggards model (Rogers 1983, Cf. Figure 3.9) is based on postulated psychological features of adopters: Innovators (the first 2.5%) are venturesome, early adopters (the next 13%) are respectable (serving as peers for others), the early majority is deliberate (but less venturesome and less independent than earlier adopters), the late majority (34%) is sceptical and the laggards (16%) are traditional (they are said to possess almost no opinion leadership).

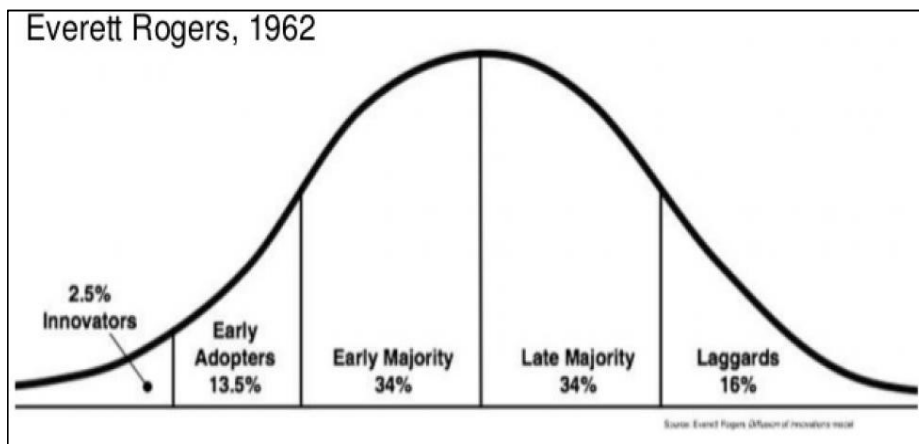


Figure 3.9: Innovation diffusion and the associated ‘frontrunners’ and ‘laggards’

As indicated earlier, these ‘early adopters’ are the archetypical tip of the iceberg that is systematically over-exposed in innovation thinking (Godin & Vinck 2017). In transition management, these ‘frontrunners’ are considered pivotal trailblazers of transformative change (Loorbach 2010). Yet importantly, this kick starting role of the ‘frontrunner’ is closely tied to the first phases of transition, ‘pre-development’ and ‘take-off’. Arguably, the energy transition has in various contexts already passed these initial stages (Markard 2018). Geels (2021) therefore argues to direct attention to ‘followership’ rather than leadership. In other words, there are also several *innovation-theoretical* reasons to look beyond the manifest forms of ‘frontrunner’ ENCI. The innovation diffusion bell-curve and the distinctions of transition phases are particularly useful. Locating the manifest ‘tip of the iceberg’ in broader schemes of innovation dynamics, they are one of the advances that help with the crucial third requirement for ENCI research: *How to operationalize these critical social-theoretical conceptualizations?*

3.5 Ideal-types: Cases and conditioning factors

ENCI research requires a normative framework that specifies the political ideals at stake (**section 3.3**). A critical social-theoretical framework helps to account for the gaps between these ENCI ideals and ENCI practices (**section 3.4**). But it is important to operationalize these insights in terms of concrete cases, and in observable ENCI agency.

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For adequate communication on ENCI, we need appropriate and telling examples. For policy, we need heuristics and strategic insight on active, sustainable, or otherwise (by certain normative standards) desirable forms of ENCI. In the end, research needs to identify the key conditioning factors that shape the further evolution of ENCI. The crucial third task for ENCI research is an *empirical-operational framework*. Three key elements of it are typology development, context analysis, and analysis of conditioning factors.

A first important step is *typology development*. This translates the relatively abstract normative and conceptual considerations into more sharp categories of ENCI phenomena. Operationalizing the complex ENCI concept into a set of well-defined and empirically recognizable ENCI ideal-types, typology development prepares for systematic empirical research. In recent years we have therefore seen various attempts to classify ENCI, and adjacent concepts such as public participation and social innovation in energy transitions (Chilvers & Longhurst 2016; Pallett et al. 2019; Wittmayer et al. 2021; Rodhouse et al. 2021; Ringholm 2022; Wahlund & Palm 2022). These studies also show how difficult it is to demarcate and map the ENCI territory, and to systematically account for the ENCI forms below the tip of the iceberg.

Having explored this bottom of the iceberg along 7 key distinctions, we do have conceptual insights about the kinds of ENCI that seem relevant, yet easy to overlook – especially when limiting our understanding of ENCI to the idealised forms and ‘best practices’ that we find in political visions, innovation programs and LinkedIn communications. We have used the manifest/latent scheme as an *explorative* device: Referring to social constructions, ideologies and perceptions of ENCI, it does not provide a classification scheme for empirical analysis. What it does achieve, is call attention to relevant distinctions and remainder categories. In Debourdeau et al. (2021) we have risen to the challenge of condensing the various ENCI categories into a conceptual typology. This condensation raises questions of conceptual delimitation: *Do we consider ‘passive ENCI’ part of ENCI, or would that overstretch the concept? Shouldn’t we rather limit ENCI to the active forms of it – whilst keeping the analysis of its passive counterparts as analytical reminders of alienation phenomena, empowerment processes and differences in resources?* Although still a conceptual exercise, this typology development also introduced questions of observability: *The*

seven distinctions make sense conceptually, but how could we tell empirically? Distinctions such as individual/collective or shallow/deep environmental citizenship indicate relevant spectra of ENCI – but can they act as distinctive characteristics of ENCI ideal-types? Key to the condensation into defining characteristics is that the seven kinds of relatively ‘latent’ ENCI display overlaps. Accordingly, we have developed a conceptual typology⁹ along two dimensions of 1) agency (disclosing a range including not only the individual-atomistic but also the organisationally embedded and collective forms of ENCI) and 2) reformative-transformative orientations (covering both the pragmatic/shallow forms as well as the counterhegemonic forms of ENCI, a dividing line that runs through the ethical-political discussions on the topic).

The adequacy of such conceptual typologies depends considerably on empirical testing and refinement. Empirical testing clarifies to what extent the typology discloses the empirical diversity of ENCI, and to which extent it takes us beyond the tip of the ENCI iceberg. Further empirical analysis will also bring out to what extent the set of ideal-types helps to anticipate the emergence of future ENCI forms (ENCI enacted through different forms of agency, for example), and in which ways it clarifies the evolution of ENCI practices: Similar to the ideal-types of Rogers (1962), one can consider how apparent ‘laggards’ can become ‘frontrunners’ – and vice versa.

This work towards systematically defined ideal-types calls attention to the societal conditions in which these ENCI forms develop. A second element of an empirical-operational framework is the empirical mapping of ENCI across countries, and the comparative analysis of (more or less favourable) ENCI contexts. The production of such comparative, systematic insight into ENCI contexts is of course a key promise of the European H2020 research program on this topic. Important work on this front has been done already, through national-focused or comparative surveys and context analyses. This clarifies how ENCI is a geographically embedded and politically diversified phenomenon. As indicated in Figure 3.3, the English-language term is translated and interpreted differently across European contexts. European contexts

⁹ The typology will be refined through further empirical and conceptual work. The consolidated version will be disclosed through separate publications. In the context of this paper, the typology construction serves to illustrate the connections between critical social-theoretical and operational-empirical frameworks.

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differ in historical legacies and citizenship traditions, and in energy systems as well– the European-scale ENCI initiative [REPowerEU](#) to ban Russian gas runs counter to the latter differences in fossil fuel dependency.

Also in these comparative analyses we encounter the challenge to look beyond the tip of the ENCI iceberg. Empirical overviews of frontrunners (in ENCI, or in renewable energy prosumerism, or in energy communities) abound, and various citizen surveys continue to monitor progress and experienced challenges. The persistent methodological challenge is here that frontrunners tend to *seek* exposure (as part of their attempts to raise awareness and gain support), and that it is relatively much more difficult to recruit ‘passive energy citizens’ for surveys. Neither do they tend set up websites on their ‘passive ENCI’ practices, or on their lives as ‘laggards’ in the energy transition.

Still it is very well possible to chart and analyse how particular ENCI ideals have strong roots in some contexts¹⁰, and less so in others. It can also be analysed how particular ENCI ideal-types are more prominent - or recognizable – in particular contexts: Energy cooperatives build on different Social Economy traditions across Europe, and in these particular contexts they form regular parts of the institutional landscape already. Likewise, the very individualised forms of ENCI are naturally more prominent in the countries with an individual-focused culture. Comparative analysis can also bring out how the ‘frontrunners’ are prominent groups in countries in which processes of energy transition are just starting, whilst the followers and ‘laggards’ are gaining more attention in the countries going into the next transition phases of acceleration and stabilization. Such comparison gives a more empirically concrete and diversified insight into the ENCI iceberg: Just as shadows move over the course of the day, it shows how particular forms of ENCI become more and less ‘manifest’ along with changing societal circumstances, inherited political systems and policies with different impacts on ENCI. Or put otherwise, it shows how certain idealised forms and theorised ideal-types may be more relevant in Brussels than they are in the various corners of Europe.

Yet there remains a third element of an empirical-operational framework that is as

¹⁰ The project is preparing for a PESTEL analysis of such contextual factors. It is too soon to build on the proceedings – this element of the paper could be elaborated through existing comparative studies on ENCI.

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important as it is hard to achieve. The key question for ENCI research¹¹ is arguably the following: *Which conditions are conducive to its flourishing (i.e. its rise and growth)?* This involves ‘distal’ and ‘proximate’ factors. Regarding the ‘distal factors’, the general contextual factors, the aforementioned comparative analyses have already brought forward relevant insights. The German ‘Energiewende’ has been intensively researched, and there is increasing work on the countries that appear to be trailing behind this frontrunner country (in passing: This shows how ENCI research has already started to look beyond the ‘tip of the iceberg’).

What remains difficult is to identify the proximate factors, the concrete empowerment mechanisms that explain how ENCI can flourish and specify what can be done about it. There are abundant general insights on the usefulness of supporting (socio-economic-legal-technical) structures, ‘intermediaries’, boundary spanners and ecosystems. Yet ENCI is a complex concept, and a very unstable explanandum: *Which kinds of causal linkages to focus on?* The normative and critical social-theoretical frameworks help to specify this search for explanation. Seeking to explain negative and positive outcomes of ENCI processes, a normative framework clarifies what could be considered positive and negative outcomes, and in which respects. It makes it more transparent that certain ‘positive outcomes’ are measured in line with certain ethical commitments and ENCI ideals, and less so with others. Furthermore, the critical social-theoretical framework provides the continuous reminder that ENCI should not be reduced to its manifest tip of the iceberg. Which conditions are conducive to the flourishing of which type of ENCI? ENCI typologies help to narrow down the issue: Analysis could focus on the factors influencing individual ENCI, or ENCI in the context of organisations, or forms of ENCI that are transformation-oriented rather than pragmatic and reformist.

3.6 Conclusion: Ways forward for ENCI research

Energy citizenship research is in particular need of well-considered, critical research approaches. As indicated, ENCI is both an empirical phenomenon as well as a discourse, a label. As a result, ENCI researchers are at risk of winding up in an echo chamber of

¹¹ This is the main question for our project, but also for the research program and policy context that it forms part of.

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normative calls for ENCI, empirical observations of ENCI, mappings of ENCI, explanations of ENCI, policy instruments for ENCI - and on each occasion ENCI means something else. We have proposed to untangle, or deal with, this label/empirical phenomenon duality by describing three frameworks that are needed for ENCI research:

- 1) A **normative** framework that specifies the associated ethical commitments, political ideals and actors;
- 2) a **critical social-theoretical** framework that clarifies the gap between these ENCI ideals and ENCI practices;
- 3) an **empirical-operational framework** that elaborates the above two into observable ENCI phenomena and systematic insight on the societal conditions that shape it.

Developing these frameworks for our own ENCI research, we have arrived at the following working definition: “Energy citizenship refers to forms of civic involvement that pertain to the development of a more sustainable and democratic energy system. Beyond its manifest forms, ENCI also comprises various latent forms: it is an ideal that can be lived up to and realised to varying degrees, according to different framework conditions and states of empowerment.” (Pel et al. 2021: 64).

This definition summarizes, first, how ENCI is in the political-normative aspect not an empty buzzword term. On the contrary, it appears to be a relevant term for various people and organizations involved in the energy transition. It forms a crossroads of political ideals. Second, the definition explicitly reminds of the various ‘latent’ forms that can be discerned beyond the manifest (active, individual, pragmatic, etc.) forms. This consideration of ENCI ‘beyond the tip of the iceberg’ applies the critical innovation thinking of Godin & Vinck (2017) and the account of latent political participation by Ekman & Amnå (2012) to a topic where it seems particularly needed. Third, the normative and critical-theoretical insights are captured in the differentiating, conditional expression that the enactment of ENCI depends on different framework conditions and states of empowerment. Analytically, this emphasises the importance of solid research into these framework conditions. Ethically, this is an inclusive definition: It acknowledges that ENCI cannot be simply presupposed or demanded, given unequally distributed resources, capabilities and contextual conditions. The potentials of energy citizenship is recognised in the literature (and by government), but according to

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Deflorian (2021) this may hide from view structural constraints to transformative change. Rather than prefiguring system change, it can also introduce illusions of power. We do not want to insist on any particular definition of ENCI. For example, it can be defined more straightforwardly as “people’s rights to and responsibilities for a just and sustainable energy transition” (Hamann et al. 2021:72). By contrast, Montalvo et al. (2021:21) are less specific about the essence of ENCI, underlining more the processual aspect of how ‘energy citizens can transition between engagement levels’. This shows how one can start ENCI research from any of the three normative, critical theoretical or empirical-operational frameworks. But whatever way one defines and investigates ENCI, in any case it is essential to develop the three indicated frameworks to *some* degree, and with some coherence between these frameworks. If not, ENCI research falls back into distant critiques (lacking operationalization), politically naive instrumentalism (overlooking how ENCI forms as crossroads of different ethical commitments and political ideals), or empirical overviews that do not do justice to the diversity of ENCI practices underneath the tip of the iceberg¹².

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¹² A possible question for the workshop: Is this approach of exploring ENCI beyond the tip of the iceberg, i.e. including its ‘latent’ forms, fruitful – and if so, how can it be operationalised?

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4 Workshop findings & implications further research

4.0 Introduction

The workshop has been structured by the Viewpoint paper (**Chapter 3**). The 8 invited speakers have reacted to it, either directly or abstractly through the workshop presentations. As the workshop followed immediately the project board meeting and the exchanges with the Advisory Board, the discussions were addressing partly the Viewpoint and the conceptual work of the project, and partly the project overall. The following brief reports tease out the main implications for ENCI conceptualization – the central task of this work package.

4.1 Workshop session 1

The first two experts, Basil Bornemann and Henrike Rau focused on the three framings displayed in the position paper, providing high value insights to deepen and refine the conceptual framework. Basil Bornemann's presentation dealt with the normative and social-critical frameworks, while Henrike Rau looked at the social-critical and operationalisation frameworks.

(Reflections by Ariane Debourdeau & Martina Schäfer, TUB)

Basil Bornemann: *Energy citizenship: some reflections on the construction and embedding of the concept*

The conceptual framework points out ENCI as a hybrid concept that refers to new forms of engagement of individuals in energy-related decision-making and governance. The paper is convincingly argued and it points in particular to the risks of a narrow instrumental use of the concept, focused on responsabilisation and overtaxing the citizens, resulting in unequal power relations. It sets up an analysis of the roles of individuals' practices in the energy transition and it arrays a critical-constructive analysis of three frameworks on which ENCI research should be built on. Basil's presentation focuses on the normative framework and its justification and relevance,

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underlining the extent to which ENCI is moving forward and increasingly encompassing not only frontrunners but affecting the life of all kinds of individuals. This argument calls for further development, notably to justify the need for ENCI, why we should develop ENCI in relation to the energy system, why energy should be addressed in terms of ENCI and what are the benefits of it. Three main points have to be underlined: first, the embeddedness of ENCI in historical development of citizenship (clear parallels with the development of earlier kinds of technological and ecological citizenship); second the “lawfulness” of energy provision calls for self-governance, considering how powerful energy structures are; and third, considering the fact energy transition affects other elements of institutionalised forms of citizenship (civic, political, and social rights and duties that are merged in constitutional life). In the position paper, ENCI should be introduced more as an element for reflection about the **formation of energy polity** that encompasses energy-related rights and responsibilities of citizens.

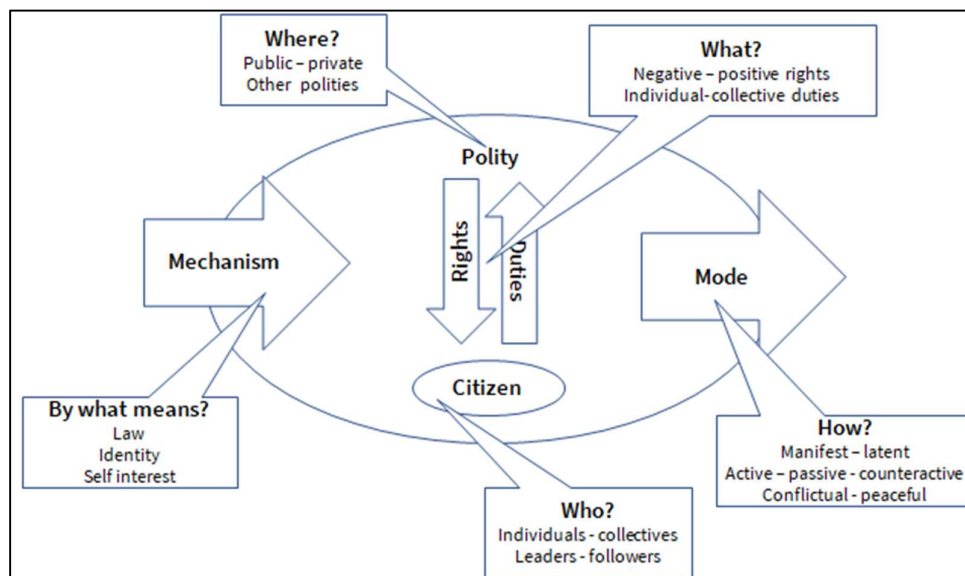
Basil then questions the kind of normative framework that was reached by the position paper at the end. It seems to be a good idea to develop a normative framework to make normativities explicit, though what is the argument at the very end for? Is it an argument to develop a normative framework or an exploration of the discourses and its normative underpinning? Content wise, very valuable arguments are provided concerning the normative horizon of ENCI, while pointing out at the very beginning the instrumentalisation of ENCI. Yet, there is a risk that the conceptual framework also gets into the trap of instrumentalisation, notably with regard to the normativity that is circulating in the EU policy discourses, with the focus on sustainability – as underlined in the EP definition of ENCI.

Basil Bornemann wonders if there is an ENCI that is not bound to sustainability and whether we should make the point that it is not necessarily connected. Should we – in contrast to the normative framing of the EU - not include forms of non-sustainable citizens’ involvement as ENCI? Should we rely on the emission-oriented nature of the concept, or is our task as researcher also to open-up to the various meanings of ENCI and various normativities and debates? Don’t we lose analytical and practical values there, by embedding the concept too early in a particular normativity and a particular normative direction? Maybe the connection between ENCI and sustainability is made too quickly. To go further, maybe you could think about:

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1. *Leaner “primary normativity”* or core normativity of the concept that that allows to include different normative ideas that already underpin the notion of citizenship – i.e. the republican idea, the liberal idea, which makes clear that various normativities underly citizenship itself.
2. *Extended “secondary” normativity* i.e., an energy-related normativity, which does not only involve sustainability but other energy-related aspects. This activates normativities that are already embedded in the energy system as efficiency, security and affordability, which are sometimes also in conflict with each other. Maybe the conceptual framework should elaborate more on all those norms and how they are activated and used for ENCI?

Basil addressed the social-critical conceptual framework, and especially its synthesis figure. The latter brings very valuable points, notably the less visible and mundane forms of ENCI. However, the purpose of the figure is not entirely clear: Is it explanatory, descriptive, evaluative? How did you come up with the categories and dimensions? The



dimensions could be made more explicit.

Figure 4.1: ENCI – a more explicit conceptual framework (Source: Basil Bornemann)

Alternative proposition for a more explicit conceptual framework was put forward. This suggestion focuses on: the “membership”, i.e. “WHO” referring to the categories that are part of ENCI; “WHERE”, i.e. the kinds of polity in which ENCI is located; “WHAT” in much

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more explicit terms of rights and duties. Then comes the “mode” of ENCI or “HOW” - its various forms (latent/manifest) or dimensions (active/passive) - and finally the “mechanisms”, i.e. by what means is ENCI mobilised.

Discussion: Henrike asked if there is anything specific about ENCI, for instance in comparison to environmental citizenship? Andy asked if he talked about the “duty to refrain from enlightened process”? In Basil’s view, the suggestion made for the technical citizenship as developed by Frankenfeld, who claims the duty in relation to technological polity could be formulated as the “duty to refrain for unenlightened protect”. Hence, he tried to identify specific duties in relation to a technological polity. Basil wouldn’t support it for different reasons, but the attempt is interesting.

Henrike Rau: *Beyond the individual: Researching energy citizenship through the lens of everyday practices*

Henrike intended to focus on the views on citizenship and the related methodology. First, she questioned *what is energy for?* (Shove et al. 2014): energy use results from householders’ collective engagement in everyday socio-material practices; energy demand reflects societal conditions, including norms and institutions (in addition to techno-material and economic setup of the energy sector); an energy turn/transition (*Energiewende*) cannot be accomplished through use of the technology alone (if at all). It is important to shift attention towards people’s practices and related energy demand. This point is alluded in many places in the position paper but it could perhaps be made more explicit, underlining the ongoing issue in practice theoretical literature: what is the role of the individual in all of this?

Changing energy use(s) is thus depending on various aspects: first, the role of individuals as ‘carriers’ of more or less energy-intensive practices whose concerted actions contribute to the reproduction of practices over time; second, a way of thinking about ENCI as an *umbrella concept* for different kinds of activities (practices) ranging from the individual to the collective level. EP has to (and did in some way) make a choice between putting the focus on the individuals or more on practices and collective activities, to understand potential shifts towards a more sustainable energy system; and third the various forms of ENCI as displayed in the typology – which ones could be

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potentially more “promising”?

Henrike recommended to review which of the 10 (tentative) types identified in EP are most likely to disrupt established daily practices. This could help the selection of cases, according to a scale of disruption of established practices (beyond reformative/transformative).

Regarding the notion of citizenship and ENCI in particular, Henrike considered it very important not to abandon this notion but to stick to this, notably for three reasons. First, because it draws attention to political and ethical dimensions of energy use. Second, since it puts the relationship between citizen and the state at the center, which is very valuable. The recent historical events around the Coronavirus pandemic (Covid19) have shown what a state can and cannot do, which has drawn attention to the importance of state regulations, of state measures to basically protect citizens. There is a real opportunity post-covid to look at this relationship between citizens/states once again through this ENCI lens. And third, because it also opens up interesting linkages to ‘green states’ debates, a key issue here for the project (cf. *Green state and social movements* from Dryzek 2003 – which highlights what they respectively can and cannot do). She assumes that these are really worthwhile strands of inquiry. See also R. Eckersley and B. Flynn’s work about leaders and laggards in the environmental policy, which could fruitfully be applied to ENCI. It is still hard to figure out what new roles, in addition to conventional roles that states have (to protect citizen, collect taxes, provide military services...), what sort of green role the state might have (in the context of energy services, provision of infrastructures, etc.). It is important also to focus on the citizen side, and how citizens link this to their everyday lives.

Moreover, Henrike really likes the explicit emphasis on “*the relatively mundane and less heroic ENCI*” and suggests to explore it further and connect it to Energize and related literature (Hobson 2013). Hence, “what people don’t do” (deliberately not owning a car, not eating meat, etc.) is also a very promising field to explore, notably for the latent forms of ENCI.

The pictures below represent the *full scale of ENCI*, showing how methodologically difficult it is to capture it. For the choice of the 40 cases: reflection on where you want to locate them along the vast spectrum of ENCI and its empirical manifestation.



Image 4.2: ENCI, the full range (Source: Henrike Rau)

Henrike has serious reservation about the ongoing responsabilisation of the individual citizens ‘to do the right thing’. A similar debate has been going on in the sustainable consumption literature for a long time and it needs to be spelled out clearly from the very beginning: *citizenship cannot mean “everything is dedicated to the citizens”*. The framing that the duties are basically on the shoulders of individual citizens is deeply problematic (in the face of potentially insurmountable structural barriers and constraints), and could be addressed a bit more explicitly in the position paper. Another possibility would be to tie it with the debates around a decline in participation of citizens in everyday activities that concern the states, a decline in vote and (conventional) participation in any important elections: what are the implications for ENCI? This too could be reflected in the position paper.

Henrike concludes by raising some core questions to EP, suggesting some possible paths for answering them: What is a case, a practice, and individual, and what do you want to put your emphasis on? There is a real challenge if you want to find out latent manifestations, latent cases of ENCI. Referring to R. Wards (1997), she asks: How do you measure or assess propensities to consume or not consume things? It is indeed an interesting challenge here to think about things that people don’t carry out, certain practices that people do not engage in, and how to capture that. This sounds difficult but this is a real challenge for social science research on these topics to really think about the things that people don’t do, either deliberately or because of economic pressure or just because of the way things are set up. She recommends to focus more on that when we are discussing manifest and latent cases of ENCI.

As a last key point, Henrike finally underlines the possible fruitfulness of using

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retrospective methods to get a sort of history of ENCI, either on an individual or on an organisational level. EP has plans in that direction, for which it would be great to think about a good set of methods to get to an history of ENCI - not in every case, but maybe in some of the selected cases.

Discussion: *Does the practice perspective change something in the understanding of citizenship, in the way we think about duties, responsibilities and rights?* A lot of practices last a long time, they endure, so people can come and go, they engage in practices, they become carriers of practices and then they disappear again. But a lot of practices are very durable and very sticky for long periods of time, because there are institutions, including state institutions, that ensure that these practices endure for such a long time by providing infrastructures, opportunities to acquire skills and competences to engage in these practices. This opens up the political dimension without having to abandon the practice part. Citizenship can also be read as a practice, in the sense there are citizenship-practices, but also citizenship as a bundle of socio-political practices that can have obviously energy implications in many different ways. (There is no need to enlarge the whole framework paper in this direction, but maybe allude to that, at the end, show that it could be an interesting new avenue for research in the future, to re-politicise or politicise practices in a new way).

4.2 Workshop session 2

José Halloy - *Do we really have an energy problem?*

(Reflections by Bonno Pel, ULB)

Prof. Halloy presents himself as the 'black sheep', coming with dissident thoughts. He works at the interdisciplinary laboratory on 'energies of tomorrow' in Paris (Cf. biographies in Annex), and questions whether 'energy' is actually the adequate framing/characterization of the future challenges associated with energy, energy extraction, and energy deployment. He takes a planetary systemic perspective on the bio-geo-physical constraints to life on Earth. This directs attention to the technological systems that make it increasingly more difficult to stay within the aforementioned constraints. Situating ENCI in the context of the physical boundaries of

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planet Earth, this particularly wide perspective raises several important questions:

Is the 'energy' part of the ENCI concept sufficiently precise? The key point of the analysis is that common notions of 'energy' transition and 'energy problems' are inaccurate. In principle there is no structural energy problem on the planet, given the abundance of solar energy. By contrast, structural problems reside in the *power* (the intensive use of energy, the energy per time unit) needed to produce many of the consumables and technologies that society depends on: telephones, cars and other path-dependent technologies and routines. Hard-wired in the infrastructures and social systems that we have inherited, such technologies keep posing high demands of power, and accordingly, of materials through which to extract energy. Energy production requires materials, and materials require energy/power. Common notions of 'energy transition' and 'energy problems' are obscuring these intertwinements between materials, energy and power. Misrepresenting the concrete biogeophysical problems and limitations that our technological development is running into, they also lead to misrepresent the kinds of socio-technical system changes needed to keep the planet on a sustainable, habitable course. The 'energy transition' may be described more accurately as a *'materials transition'*, a *'time scale transition'* (slowing down our material practices decreases the crucial hunger for power), or indeed a *'power transition'*). ENCI can thus be considered to form part of a widespread misunderstanding of our planetary predicament (misrepresenting it as 'energy transition').

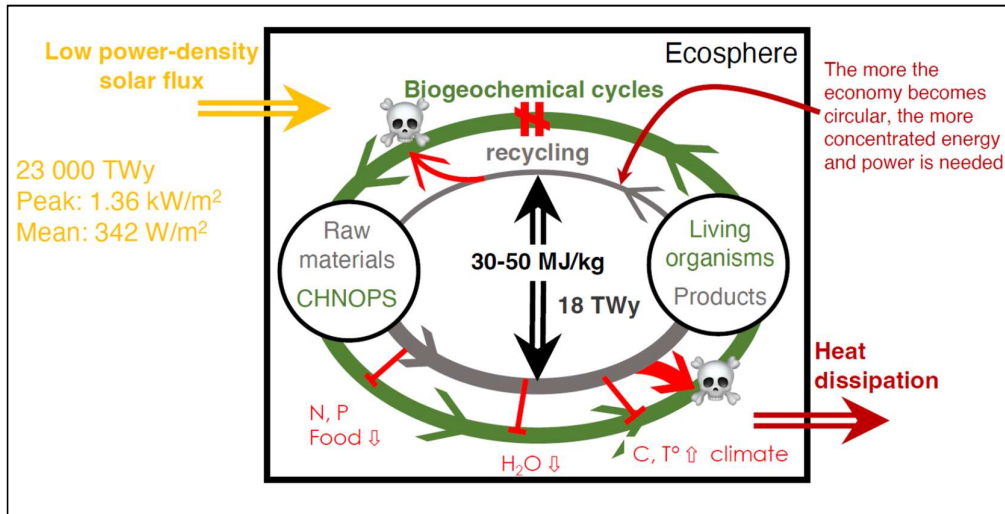


Figure 4.3: Power, Energy and Materials in our planetary system (Source: José Halloy)

This underlines the importance of the various critical distinctions that we have made earlier: Between radical and incremental innovation, between reformative – transformative outcome orientations, between deep and shallow environmental citizenship. The planetary-systemic view adds a distinction between shallow ENCI (oriented towards various apparent solutions that are insufficient in the light of the aforementioned systemic linkages) and energy-materialistically *enlightened* ENCI.

This issue of enlightenment and awareness reminds of a key characteristic of ENCI: ENCI marks the acknowledgement of and development towards capable and responsible citizens, rather than deficient consumers (Cf. Devine-Wright 2007; Pel et al. 2021). The awareness of energy-power-materials coupling reminds more specifically of the energy literacy that ENCI is presupposing and promoting. This opens up a second series of questions: *How can ENCI discourse (and associated strategies to promote ENCI) serve to increase energy literacy?* And considering that ENCI discourse hides/obscures certain energy/power/materials linkages: *How can ENCI discourse be broadened, deepened or diversified, in order to highlight and create awareness about these systemic energy-materials linkages?*

The discussion featured critical remarks by Advisory Board member Prof. Stirling (Cf. session 3) on the rather assertive tone of the analysis, and on the authoritative claims about the nature of current energy problems. Mobilizing natural-scientific evidence with little attention to uncertainty and little room for contestation, the systemic analysis could effectively undermine societal debate and reinforce the

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prevailing expert-dominated governance of energy systems. Such closing down of energy issues would backfire, in the form of climate scepticism and principled rejections of scientific evidence on energy issues. Prof. Halloy indicated to agree with this point on the uncertainty. Leaving aside whether his analysis was sufficiently explicit about the uncertainty (and limits to scientific knowledge) involved, the discussion did raise important issues of democratization, expertise and authority. A third set of questions arises regarding the knowledge politics of energy citizenship: *Does the pursuit of ENCI also imply challenging the dominant structures of expertise? Can ENCI be realised through the prevailing forms of evidence-based policy-making? In which ways would ENCI drive towards citizen science, participatory technology assessment, or other redefinitions of expertise? Which are the empirical examples of ENCI initiatives that are engaging in the politics of knowledge?*

4.3 Workshop session 3

(Reflections by Ben Schmid and Frances Fahy, NUIG)

Andy Stirling: *Framing Energy Citizenship: from eagle- to worm-eye views*

Andy Stirling presented a critical view on the framing of ENCI. He started his reflections with the notion that around the contemporary world, at all levels and settings, previously more vigorous forms of democratic struggle are subverted, dissipated and overturned – referring to the (coordinated) emergence of authoritarian populism worldwide. But he also recognised that much of academic discussion around citizenship, participation and deliberation strangely ignores this wider context. He pleaded for (social science) research not to consider democracy merely as a granted social order to be dispassionately looked down upon and described from a detached intellectual academic position. After all, regardless of its content, a certain idiom is relationally promoted in discourse when it is adopted by academia, as Andy noted. Rather, democracy should be treated as a struggle to engage in, which includes reflecting on the conditions to bear on the meanings of ENCI and on why this term is coming to the fore right now.

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Against this background, he cautioned against under-reflecting that the entire framing of the discourse around ENCI could be an expedient instrumentalisation, and made an uncritical adoption of the framings of ECNI a central concern. He emphasised that a key point for this is the question whether to treat citizens and democracy as a means to an end or an end in itself. If treated as a means to an end, regardless of the intentions, one becomes complicit in the instrumentalising. He argues that democracy is too precious to become an instrument – even for things of key importance such as the energy transition. Not least because, if done by academia, this creates legitimacy for other actors with far more power to do likewise. Fundamentally, he argued, that democracy is the access for the least powerful to the capacity to challenge power, whereby power is not a bad thing as such, it only becomes bad if it is not challenged. He cautioned that, although the discourse around ENCI appears to be about democracy and citizenship in a progressive way, it might equally become about the opposite, especially if this danger is not acknowledged and explored. “There is no more potent form of subversion that to cloak a regressive intervention in progressive clothes”. Based on these reflections, Andy brought forward a few considerations for the viewpoint paper and the project in general:

Firstly, he noted that using the prefix “energy” to citizenship also risks prefixing and disciplining the domain that citizenship can be about. Rather than citizenship being afforded its own autonomy and sources of agency with respect to what citizenship means, the framing and prefixing confine it to certain boundaries and make it subject to another, undeclared agency. Rather than democracy being about emancipation and struggle and citizens within that, it becomes prefixed by a scope.

Secondly, he noted that, if we are not discussing power dynamics around the energy transformation, we know we are missing something – given that such dynamics certainly are in play. This relates to the question as to what this focus on citizenship does what a focus on democracy would not do. He recognises that energy democracy is mentioned as an associated term in the paper. But he missed a deeper and critical discussion how it relates to ENCI and to what extent this change of perspective shifts attentions away from power and politics to exactly the kind of social-psychological, individualised approaches that the concept was trying to escape in the first place.

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Thirdly, he notes that, among all the things that could be discussed about citizenship, too much emphasis is given to obligations, responsibilities and duties, while other attributes and qualities such as accountability, agency and collective action are downplayed. He argues that it is all or at least too much about responsibilities and obligations to some notion of higher authority. This is further compounded when the discussion revolves about followership, first adopters and analogies of innovation, when it is not just individualised but when a normative hierarchy is suggested. This risks treating the agency of some individuals more positively than of others – so that certain individuals are seen as further ahead in the supposedly desirable frame.

He recommended using the terms and concepts that are given to us, in our case ENCI, as a site for reflecting upon and critiquing the very conditions that are framing them, to move away from domesticating democratic struggle and pre-fixing politics but towards collective action. He suggests that a section towards the end of the paper could take up these issues. This could be what it means to adopt a more worm-eyed view that is immersed in the investigated phenomenon and that acknowledges that this phenomenon is unavoidably complex, ambiguous and shaped by power.

Susana Batel: *The green energy transition - Which implications for energy citizenship and human rights?*

Susana Batel presented a critical view of ENCI in relation to the green energy transition. She started by arguing that, if socio-environmental justice and issues of democracy are acknowledged as key in the discourse around ENCI, then the green energy transition has more similarities than it should have with our fossil fuel society and fossil fuel-based growth. She pointed out that in the context of the transition to renewable energy (RE) and green (growth), there are many communities and citizens for whom not only the duties and responsibilities have to be considered, but whose rights and agency are being curtailed and dismissed. For instance, she mentioned large-scale RE companies that operate worldwide and that perform similarly poor as their fossil fuel equivalents with respect to human rights indicators. This includes infringements on land rights and indigenous people's rights through large hydropower, large-scale wind or solar farms and associated infrastructure. Furthermore, socio-environmental justice also concerns the question "RE- for whom?" as RE and related infrastructure are employed in such a

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way that can bring procedural and distributive injustices. She added that a green (growth) energy transition is expected to be more mineral intensive than fossil fuel. Against this background, she argues to consider RE only as “fossil fuel plus”, given the high extraction costs for the required material and the affect this has on communities and citizens, not just where the facilities are deployed but also at the site of resource extraction.

Building on that, she argued to think of ENCI at a global collective scale: it is not only individual and local but has implications for collective and global rights, duties and related well-being. She introduced the concept of “renewable energy colonialism”, which brings forward the notion that the green energy transition creates and reproduces the same structural power relations, associated injustice and exclusion impactions because it is being performed within the same prevailing socio-political and economic system. As her studies show, this not only happens between the global north and south but increasingly within the global north, for instance between urban and rural areas. Rural inhabitants are often seen as second-order citizens and are being dismissed as political subjects. They often have to carry the costs and negative implications of large-scale RE deployments, while most consumption occurs in urban areas. She cautioned against promoting and performing an unjust and exclusionary green energy transition without addressing the larger, structural power relations. In this context, she mentioned several authors that highlight how the green energy transition brings to the fore this failure of globalised neoliberal capitalists promises of prosperity.

In relation to ENCI as a practice and a concept, she encouraged us to think about the millions of people who do not have access to energy and about the question who does and who does not have the right to be an energy citizen. This particularly concerns people in energy poverty, which are often dismissed and ignored as political subjects. Can they be full energy citizens? What about people without access to energy? Furthermore, she argued to go beyond the issues of energy over-consumption when thinking about ENCI but to include as well the right to stay and to say no in relation to large-scale RE infrastructure. She argued to think about how ENCI can be coupled with fostering other alternatives for doing energy, such as decentralised, community-based or de-growth forms.

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In conclusion, she sees ENCI not (yet) as an emerging governmentality as most rights and duties are still given within the ethos of a neoliberal capitalism as prevailing governmentality. She rejects that ENCI can be conceptualised separately from energy democracy as citizens' and non-citizen's roles, rights and duties must be conceptualised within structural societal power relations from the local to the global scale.

Gary Goggins: *The importance of culture in advancing sustainable energy policy and practice*

Garry Goggins' presentation revolved around the importance and role of culture in relation to ENCI. He advanced the argument that a lot of the language, terminology, concepts and ideas that were used in the viewpoint paper referred to similar things that he and co-authors tried to address when looking at culture and energy and energy-related practices. Quoting several terms from the viewpoint paper (narrative of empowered, self-organizing citizenship; exclusion and reproduced power inequalities; enacted mainly by particular social groups; an emerging governmentality; an initiative towards institutional innovation), he suggested that these fundamentally are cultural phenomena and thus issues of ENCI should be fundamentally understood as embedded in the socio-cultural context.

To substantiate this argument, he mentioned a definition of culture as "...a set of solutions to everyday problems, fusing material elements and technologies, collectively adopted skills and competences, and socially negotiated meanings" (Goggins et al., 2022) and highlighted the overlap with our description of ENCI when it comes to social negotiation, shared assumptions, and activities involved. Also in another paper (Genus et al., 2021) on the relevance of culture to energy use, three dimensions are identified that contain many issues that also come up under the concept of ENCI, as he highlighted: Materiality (mundane technology), Meaning (symbols collectively attached to energy use domains), and Knowledge (skills, know-how implicated with energy use practices). Finally, he brought his argument to the point by quoting from the viewpoint paper that "...the English-language term [ENCI] is translated and interpreted differently across European contexts...European contexts differ in historical legacies and citizenship traditions..." (p14).

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Against this background he asked why the viewpoint paper touches on culture without explicitly engaging with the term? Seeing the ENCI concept as an alternative imaginary, what is the story of culture in there? Is (energy) culture an adjacent notion or inherent to ENCI? Whereas other adjacent terms are mentioned, why does culture not come up? He further highlighted the relevance of culture with respect to the question how to distinguish between and operationalise latent and manifest forms of ENCI. He remarked that within a single case of ENCI (not of an energy citizen), we can find multiple roles as well as the various dimensions that we identified as manifest and latent, we can find active and passive citizens, collective and individual agency, frontrunners and laggards, pragmatic and transformative involvement etc. However, he argued that the idea of the latent and manifest and the different underlying dimensions strongly depend on the cultural context. As a further argument, he pointed out that this also applies to energy-related practices – that they also should be understood cultural phenomena.

Finally, the relevance of culture for ENCI was emphasised in the discussion by Andy Stirling: “How culture differs from the kind of formalised codified procedures of democracy and citizenship is that it extends out into the domain of collective action, of civil society, of social movements. Arguably, culture is the more encompassing domain within which government and policy procedures routines of democracy takes place. So giving more emphasis on culture could also be to constitute democracy beyond procedures throughout cultural at large.”

4.4 Workshop session 4

Mario Pansera: *Growth, post-growth, degrowth or collapse? Reflections on the technological limits to energy citizenship*

(Reflections by René Kemp, UM).

Mario Pansera liked the viewpoint paper. He found the attention to ideals, concrete practices and ideologies about ENCI very relevant and also appreciated the attention to latent forms of citizenship.

As an engineer-turned-social scientist with a deep understanding of energy communities, Mario has a good understanding of the civil society aspects of energy systems, the material aspects of technologies and the market aspects of energy fuels. He

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considers the energy system a battleground and believes that the choices about energy will have huge implications, and not just positive ones. Similar to José Halloy, he drew attention to the high material requirements of RE which are not sustainable. He considered nuclear power fundamentally undemocratic and the high hopes about hydrogen as unrealistic, because of the absent infrastructure and higher costs associated with its production. According to him, the energy system requires democratic control and more attention to fairness. He is worried that the energy transition will deepen divides in society (between high-income people and low-income people, urban and rural people and people who are anti-government and those who are not). His own research on energy communities in England, showed that ENCI were dominated by white, high-educated people. In discussing ENCI, he wants the position paper to give more attention to the following three issues: the scale/upscaling of local green energy initiatives, the EU political context and the global context. On those issues Mario said the following:

1. **Scale and possibilities for scaling.** Grassroots innovations are locally situated attempts at achieving change. Often the actors are less interested in bringing the innovations to scale and institutions for this are weak or missing. Such innovations may not prefigure the future energy system, but remain local initiatives that do not appeal to the majority of the people. The question that he asked was: how many people are needed to reach sufficient scale or a critical mass to combat climate change and energy transition? Usually, only a small number of people are actively involved in ENCI initiatives.
2. **The EU context.** The EU supports bottom-up initiatives but at the same time is deeply committed to the economic growth paradigm, the neoliberal policies and to the reliance on markets for energy (and other commodities) with an important role for businesses. Energy prices are not under democratic control and the future of the energy systems seems to be in the hand of non-democratic chosen people, organisations and institutions. Energy transition policies may deepen divides, in particular the inequality divide (by affecting energy poor, disproportionately in terms of the benefits and costs). Nature preservation action and NIMBY (Not In My Back Yard) protests in rich countries may cause business shifts to countries where there is less civil action, such as Portugal and Spain or Africa, where hydropower might be used to generate hydrogen for Europe.

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RE generation purely for profit is likely to cause problems in the form of poor siting and an unfair distribution of the costs and benefits.

3. **Globally**, international conflicts will arise, some of which will lead to wars.

Over the last 10 years there is a lot of attention about RE as a new wave of innovation (there is for example a lot of enthusiasm for electric cars). But at the same time looking through the lense flow of materials, there is a race to get rare key minerals for these new innovative technologies. For EP it is important to ask what would be the societal impacts for ENCI. Looking for example at what is happening with the war between the Ukraine and Russia. Pansera implores us to take into account the probability of having conflicts over resources, which will increase dramatically (e.g. global power classes, Nato/Russia etc). There are already many inequality examples in the EU markets. For example, Portugal and Spain are targeted as the next reservoir of RE in the EU, producing energy for the core countries (e.g. France, Germany), creating post-colonial links between the core of EU and their neighbours. North Africa is also targeted as a place for solar power generation, with little regard for the needs and demands of local people/citizens. In a world characterised by political instability, conflicts over energy can be considered in a democratic and non-democratic way. There is a great danger that technological choices will be made in a non-democratic way. In EP all these three dimensions need to be considered. We are, as Pansera discussed, at the crossroads of a dangerous situation which is often focused on maximising economic growth, whereas aspects like ENCI are still in the sideline.

Mario Pansera developed a scheme with *two scenarios/dilemmas for a post-growth world*: 1) *planned democratic control* or 2) *chaotic collapse*. In the first scenario, only few innovations will be considered good (but it is unclear which ones), there will be voluntary reduction in consumption overall (and a big reduction in energy consumption through dedicated efforts) and the economy will be less based on free markets. In the second scenario, of chaotic collapse, a reduction in consumption will occur because of international conflicts and other sources of instability. ENCI is unlikely to be a deciding factor. Many factors are at play. Regions, communities and people may opt for energy autonomy or autarky but in combination of political action. Self-organising and community action are important but are often not enough. An example of this is the case of Trentino in northern Italy which has a long tradition of micro-hydro power that is

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managed by semi-public entities. Trentino is an example of self-organising in combination of formal political institutional setting. Community driven initiatives are important but they need to be combined with political action in order to have an impact. The energy transition is likely to experience opposition from populist parties. According Pansera, these two scenarios need to be discussed and taken into account in the development of ENCI research. It would be important to tease these scenarios, for example during the empirical part of the EP project.

Democracy is not a simple solution for achieving a safe and sustainable energy system and is in danger of being impaired by technocratic solutions and autocratic rulers. More attention to the non-democratic operation of the energy market is warranted. This is presently outside the scope of EP. Martina Schaefer (TUB) wants the EP researchers to pay more attention to the question of how ENCI helps to get on a more democratic path and how in EP we want to avoid the 'chaotic collapse'. In terms of the critical mass, Martina mentioned that it is not only the size or scale but also what type of engagement we are looking for in ENCI in order to have impact on policies. Finally, Schaefer responded to the point of the EU context and its discrepancies which will be covered in EP during the PESTEL analysis in WP5. Bonno Pel (ULB) made the point that ENCI could be one of the concepts that can lead to degrowth in a democratic way. At the same time it can also be that this will not happen (at least not in time). In the last scenario, ENCI can help us to develop the resilience and prepare us for to the 'growth and collapse'. Ben Schmid (NUIG) said that sustainability and democracy are too different things. According to René Kemp (UM) all energy choices come with big disadvantages when used on a large scale, which makes choices for the future difficult. Existing divides may get deeper, because of the operation of markets and because we live in a world of cultural conflicts. Systemic thinking and an analysis of the material requirements and biophysical consequences is needed according to José Halloy but there is also a need to consider the politics and social conflicts dimension even when they are surrounded with great uncertainty for the future of energy security.

4.5 Workshop session 5

Emmanuel Raufflet: *Perspectives on energy citizenship and transition*

(Reflections by Luisa Losada Puente and Adina Dumitru, UDC).

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Emmanuel Raufflet proposed a debate related to the *perspectives on ENCI and transition*, drawing on his expertise related to the transition from a "linear" to a "circular" economy, optimising the use of resources at all stages of the life cycle of resources and services to reduce the environmental footprint and contribute to the well-being of individuals and communities. He nourished his presentation with the analysis of concepts previously addressed around the concept of "ENCI", raising questions related to: how is the concept constructed? Through which paradigms or theoretical models is it possible to develop this concept in order to give it a subsequent empirical approach? What normative framework transcends each of the two component terms: energy and citizenship? What can we expect from ENCI by 2040? And what is research and knowledge progress on ENCI?

The concept of ENCI does not seem to have a clearly delimited epistemological status, as its use generates some doubts and, above all, some controversies. Following some of Professor Raufflet's contributions to the discourse based on the literature, he argues that "'essentially contested concepts' (Gallie, 1955) are attractive to policymakers as they imply positive connotations, while their ability to be differentially interpreted by various protagonists means that they can never be 'disproven' (Teasdale, 2012; Ziegler, 2015)". Under this idea, Pf. Raufflet refers to ENCI as an "umbrella" concept under which numerous terms such as energy democracy, justice, poverty, literacy... have been introduced, which, instead of providing a clear and empirically verifiable vision of what is to be achieved in terms of transforming the energy system through citizenship, become a kind of "nirvana" that provide "an idealised but vague image of what the world should strive for (Molle, 2008)". Therefore, this complexity that transcends the use of the concept of ENCI raises the requirement to break it down into its two "intertwined imperatives" in order to bring greater clarity to the concept:

On the one hand, Energy transition provides a broad perspective focusing on macro change (changes in energy use, technological and social changes...). It is based on the achievement of meeting specific energy needs facing planetary boundaries at local, national and European scales in relation to decarbonisation, and involves addressing actions related to consumption, individual and collective practices of energy adaptation, and availability of infrastructure for supply.

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On the other hand, citizenship focuses on the way in which the population, individually and as part of a society, is considered part of the change towards a new form of energy consumption and production based on greater degrees of participation (beyond prosumerism). It provides a vision of the conditions that act as enablers and barriers to citizen change, based on the concept of empowerment to defend their right to be part of deliberation and decision-making processes (participation, emancipation), to be respected (protection from abuse) and informed (awareness, access to technology and science...). The recognition of the existence of different "citizenships" under the umbrella of ENCI entails raising various conditions of the geographical context (rural/urban), individual socio-economic (energy precariousness: transport, housing) and organisational (organisations, sectoral or business associations), and linked to justice and equity (gender and ethnic inequality, unfair subsidies...).

Being able to identify the nuances that transcend these two concepts, it is possible to refer to ENCI as "a process of co-construction and learning" but it is not without tensions and challenges, which stem mainly from the different forms of access to ENCI initiatives, i.e. initiatives exist in terms of ENCI, but they are not available to all people. So what can we expect in 2040? In an attempt to put a simple scenario under the complexity represented by the ENCI concept and its different forms, Pf. Raufflet sets out a 2x2 matrix (table 4.1.) in which four possible ENCI developments are drawn based on the combination of "energy transition/ " and "energy citizenship ".

	Citizenship: low level	Citizenship : high level
Energy transition successful (decoupling/degrowth)	Technocratic? Authoritarian backlash? Infrastructure and supply-driven « Instrumentalised ENCI »	Participation, empowerment, Changed culture and practices
Energy transition not successful	Market-regulation only?	Achieving «full » citizenship may not be enough to meet energy transition objectives (quantitatively and qualitatively)

Table 4.1: Back to 2040: stretching the faces on EN-CI (Source: Emmanuel Raufflet).

The focus on temporality makes it possible to bring together individual decisions and collective constraints, together with political decisions regarding the provision of resources, means and infrastructures to promote change. Thus, at a basic level

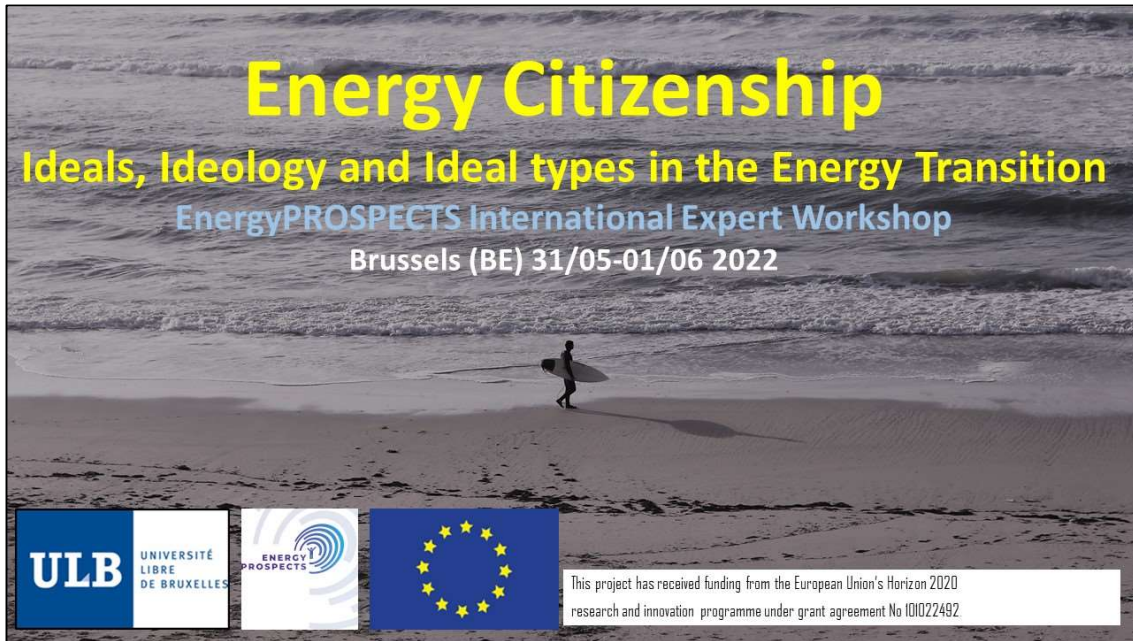
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(unsuccessful energy transition/low-level ENCI) the focus would be exclusively on the modification of market policies towards a more sustainable consumption model, but in which citizens would have little decision-making power; along similar lines, the combination of "successful energy transition/low-level ENCI" would be based on an instrumentalised ENCI, centred on technocracy and driven by the political sector. Finally, in the two positions centred on high-level ENCI, unsuccessful forms of transition would be highlighted as they do not also take into consideration the mechanisms that make it possible to fulfil the energy transition objectives, beyond the achievement of "full" citizenship, and finally, we would have the successful forms of transition, in which full citizen participation and empowerment would be achieved, combined with a possible change in culture and practices related to consumption and production.

In short, it is a question of managing to combine individual and collective capacity to make decisions and position oneself in the face of change towards more sustainable energy consumption, with the possibilities and interests at the political, economic, educational and social levels to change infrastructures, contexts and mentalities towards the transition.

Annexes

Workshop invitation



Workshop Participants

- 1) Henrike Rau, LMU Munich
- 2) Andy Stirling, University of Sussex
- 3) Mario Pansera, University of Vigo
- 4) Gary Goggins, Department of Housing, Local Government and Heritage
- 5) Emmanuel Raufflet, HEC Montréal
- 6) Basil Bornemann, University of Basel
- 7) José Halloy, Université Paris Cité
- 8) Susana Batel, University Institute of Lisbon
- 9) Bonno Pel (ULB)
- 10) Tom Bauler (ULB)
- 11) Ariane Debourdeau (TUB)
- 12) Martina Schäfer (TUB)
- 13) Benjamin Schmid (NUIG)
- 14) Frances Fahy (NUIG)
- 15) Rene Kemp (UM)
- 16) Edina Vadovics (GDI)
- 17) Kristóf Vadovics (GDI)
- 18) Marko Hajdinjak (ARC)
- 19) Desislava Asenova (ARC)
- 20) Karin Thalberg (JDI)
- 21) Luisa Losada Puente (UDC)
- 22) Janis Brizga (LU)
- 23) Raimonds Ernšteins (LU)

Biographies invited speakers

José Halloy

Over the past decade, José has developed research at the interface of collective animal behavior, mathematical models of collective intelligence, biomimetic artificial intelligence and robotics. Then, he moved into sustainability science.

José is a cofounder of the “Laboratoire Interdisciplinaire des Énergies Demain”, LIED UMR 8236 at Université Paris Diderot now Université Paris Cité. This laboratory was created in January 2013 on the initiative of the President of the university and the management of the CNRS. Created ex nihilo by academics and staff from other research units or components of the University or recruited from one of the 14 posts created and filled by the University and the CNRS for the laboratory. The LIED laboratory was conceived as a fundamentally interdisciplinary project placing the theme of energy and resources at the heart of convergent investigations involving scientific disciplines, including the social sciences and natural sciences.

He develop sustainability research dealing with the coupling between materials and energy production in a « system Earth » framework. On the one hand, the energy transition is often seen as a problem of production of renewable energy without considering the material basis of this production. On the other hand, the analysis of socio-technical systems such as agriculture is often decoupled from all their energy and material consumption. Considering agriculture, we also analyze the world trade networks and the energy input in agriculture. We develop integrative approaches to analyze the material and energy foundations of past societies, present and possible future ones including social sciences inputs.

Andy Stirling

[Andy Stirling](#) is Professor of Science and Technology Policy in the [Science Policy Research Unit](#) at [Sussex University](#) where he co-directed the ESRC [STEPS Centre](#) for 16 years. [Focusing especially](#) on issues of power, uncertainty and diversity in science and society, he’s sat on UK and EU regulatory bodies on energy policy, [toxic substances](#), [GM](#)
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[Crops](#), [science advice](#) and [public engagement](#). Formerly a campaigner and boardmember for [Greenpeace](#), he's also advised the [Royal Society](#), [Nuffield Council](#) and [European Science Foundation](#). A fellow of the [UK Academy of Social Sciences](#), he's served on the [ESRC Research Committee](#), in the 2021 UK '[Research Excellence Framework](#)' and as an [IPBES assessment](#) lead author.

Henrike Rau

Henrike Rau is Professor of Social Geography and Sustainability Research at LMU Munich, Germany. She has made internationally recognised contributions to the conceptual and methodological advancement of social scientific and interdisciplinary sustainability research on topics such as domestic energy use, food consumption and mobility practices across the life course. Her previous projects include ENERGISE, a three-year study of domestic energy use and its potential reduction, funded under the Horizon 2020 programme (2016-2019, Grant Agreement No. 727642).

Gary Goggins

Gary Goggins is an Environmental Social Scientist working with LIFE IP Wild Atlantic Nature, an innovative and ambitious EU LIFE project aimed at conservation and management of Ireland's Natura 2000 network of blanket bog habitat. Gary previously worked as a Senior Research Fellow at NUI Galway, a project manager in the construction industry and in the NGO sector in Ireland and Zambia. His main research interests are in relation to sustainable consumption and socio-technical change. He is also concerned with how knowledge is communicated with policy makers, civil society and industry.

Mario Pansera

Mario is currently employed as Distinguished Researcher by the UVIGO. He's also affiliated Researcher at the Autònoma University of Barcelona.

He is the PI of ERC Starting Grant for the project PROSPERA (947713) and Coordinator

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of the H2020 project JUST2CE. His work focuses on Responsible Research and Innovation (RRI) and Innovation for degrowth/postgrowth. He gained a PhD in Management at the University of Exeter Business School in 2014. After his Marie-Curie post-doctoral fellowship in Brussels, he worked as a research fellow at the University of Bristol from 2017 to 2020. Mario is honorary research fellow at the University of Bristol and international faculty at the Graduate School of Business of the University of Cape Town in South Africa where he teaches Responsible Innovation in the ExeMBA.

Basil Bornemann

Basil Bornemann is currently a senior researcher and lecturer at the Social Research and Methodology Group and the Sustainability Research Group, University of Basel. Having an interdisciplinary study background in environmental sciences, he holds a doctoral degree in political science from Leuphana University of Lueneburg, and a *venia docendi* in political science and sustainability research from University of Basel. His research focuses on sustainability-oriented governance transformations and their democratic implications in various areas such as energy and food. At present, he is involved in a research project on “Sustainabilisation of the State” funded by the Swiss National Science Foundation (SNSF). Basil is further interested in principles and practices of transformative sustainability research.

Susana Batel

Susana Batel is an Integrated Researcher at the Center for Psychological Research and Social Intervention of the University Institute of Lisbon (ISCTE-IUL). Her research adopts a critical and interdisciplinary perspective to examine the relationship between people, territories, and the climate crisis, specifically around energy transformations towards carbon neutrality, and associated socio-environmental justice and political participation issues.

Dr. Emmanuel Raufflet

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Emmanuel Raufflet (Ph.D. Management, McGill University) is a Professor of Management at HEC Montréal. His research focuses on social innovation, sustainable development and circular economy. He has been a guest professor in several universities and business schools internationally. He has led research projects related to energy, sustainability and social acceptability, and circular economy with public, private and non-profit organisations.

He has published and coedited 8 books, has authored more than 50 chapters, 30 articles, and 30 teaching cases. He is the director of the Graduate Degree and Master in Management and Sustainable Development at HEC Montréal. In 2018-2019, he served as academic director of the IEDDEC (*Institut Environnement, Développement durable et Économie Circulaire*), a joint research center between École Polytechnique, Université de Montréal and HEC Montréal. He is co-head of the Quebec Research Network on circular economy (160 + researchers/ interdisciplinary) (2021-2026).