CHAPTER 9

Decolonizing CE: some reflections on theory and praxis from the JUST2CE experience .

Chapter 9. Decolonizing CE: some reflections on theory and praxis from the JUST2CE experience

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Abstract

In this chapter, we share our reflections on how, within the JUST2CE project, we have engaged with postcolonial and decolonial debates and how they have contributed to shaping our epistemological and methodological approach. The chapter begins by highlighting some shared critiques emerging from postcolonial and decolonial debates on one side and critical perspectives on CE on the other, specifically focusing on the enduring dominance of Eurocentric perspectives and the simultaneous marginalisation of alternatives (section 9.1). It continues by exploring how these critiques informed our methodological approach and efforts to embed decolonial lenses within JUS2CE (section 9.2), and the work undertaken in the first twelve months of the project (section 9.3).

Keywords: Decolonisation, Political Reflexivity, Western, Eurocentrism.

> This chapter describes our efforts to embrace a shared decolonial perspective for JUST2CE, focusing on the work done in the first twelve months of the project. It discusses the challenges and opportunities posed by the process of decolonising CE research and looks ahead to future work.

9.1 Introduction

Recent critiques of CE unveil and contest its 'eco-modernist' agenda (Genovese & Pansera, 2021), and the underpinning primacy attributed to capitalism's expansion and economic growth. It is argued that CE, rather than altering existing economic dynamics and priorities, enhances market capitalism by instrumentally embracing green ideals that further facilitate and promote consumption and production, and, ultimately, environmental degradation (Valenzuela and Bohm, 2017). Importantly, several scholars have drawn attention to the prevailing technocratic conceptualization of CE (Pansera et al., 2021), which manifests itself in a strong faith in science and technology, in the passive compliant role attributed to citizens, and in the neglect of social and cultural issues (Mies and Gold, 2022). In fact, while CE is frequently depicted as an interdisciplinary field, the literature reveals that it is primarily defined by technocratic discussions in which science, technology, and innovation all play a crucial role in how CE is conceptualized and planned (Pansera et al. 2021). This techno-managerial dominance typically

presents science, technology, and innovation as neutral dimensions that contribute to progress and development. Approaching CE research and policy in this way embeds and reproduces western-centric perspectives (albeit elevated as universal), whose limitations have been widely acknowledged in various disciplines, from development studies (Mignolo & Walsh, 2018), critical management and organisational studies (Girei, 2017), and beyond (Connell 2007).

Seeking methods to disrupt this pattern, we proposed a set of interventions to bring an explicitly decolonial lens to our CE research interventions in the JUST2CE project. In this chapter, with a decolonial lens, we specifically focus on epistemic decolonisation yet acknowledge the risks implied in the understanding colonisation disentangled from material implications, such as. control of land and resources (Abdelnour, 2022). Yet, we see epistemic decolonisation as a necessary step for developing ways of knowledge production that unsettle the Eurocentric gaze and contribute disrupting existing broader colonial legacies.

This chapter examines the interventions and practices we introduced in the first year of the project, explicating key findings and challenges that emerged in the process. We offer these reflections as evidence of the importance of including decolonial lenses in CE knowledge production in particular, and as a set of guiding observations for those who might seek to implement a similar process in other CE knowledge-production efforts. In the following, we first elaborate the relevance of decolonial lenses, establishing the basis of our research interventions. Subsequently, in section 10.3 we explore what was done in the initial year of the project in relation to our commitment to embed decolonial lenses. Finally, in section 10.4 we present how this commitment has been understood and implemented in the planning of the different work packages.

9.2 A Decolonial Lens on Knowledge Production

Decolonization recognizes that the racial, political, and social hierarchical orders of colonialism are largely still in existence, having been absorbed into successive social orders in the post-colonial world (Quijano, 2000; Bhopal, 2018). It refers to continuities of colonial practices and imaginations across space and time on a global scale, and is based in an understanding of European colonialism as continuing to shape global economic, political and social structures and relations (Maldonado-Torres, 2011. Decolonial scholars have long debated and examined the inequalities that shape knowledge (Mbembe, 2016), acknowledging that science is predominantly dominated by western and Eurocentric cultures, values, and ways of seeing, thus it is always partial (Hlabangane, 2021). They have also argued that this epistemic debate is critical for addressing social inequalities and understanding historical injustices (Escobar, 2016). Drawing on these debates, this section introduces a review of epistemic decolonization, which informed our approach to decoloniality in the JUST2CE project.

Eurocentrism has dominated knowledge production as "[...] an epistemic phenomenon that received its name from the territorial location of actors, languages, and institutions that managed to project as universal their own world sense and worldviews" (Mignolo 2018, 194). One of the distinguishing features of Eurocentrism is that, despite being written from specific geographical locations, its texts, theories, and approaches frequently claim to speak in universal terms (Connell 2007). The texts' and authors' locations are frequently kept hidden, as any explicit recognition would call into question the texts' assumed universal applicability (Connell 2007). Moreover, these European intellectual and economic traditions are elevated to a superior status, a universal model by which to

assess, compare and produce knowledge about the rest of the world (Amin, 2004. Importantly, this universal status also means they are mobilized as if they are neutral and do not come with ideological baggage.

All this does not imply that all knowledge produced in Europe has these characteristics, as there are non-hegemonic western forms of knowledge as well (Liboiron, 2021). Instead, it refers to a form of knowledge that is typically rationalist and secular, emphasizing the significance of science, economics, and technology (Connell, 2007). What this means is that other forms of knowledge are subordinated to this form of dominant Eurocentric knowledge (Tuhiwai-Smith, 2012). And with this epistemic subordination, comes the subordination of peoples, and cultures. As the feminist philosopher of science Sandra Harding puts it, Eurocentrism implies "the world-wide dominance of only one ethnoscience, and one that inherently legitimates—perhaps even requires—an imperialism against other scientific traditions, other cultures, other peoples and nature itself" (Harding, 1992, 311).

Moreover, eurocentrism has resulted in many of the global challenges we face today (Escobar 2017). For example, by destroying most communal and place-based forms of relationality, while prioritizing individualism; by adopting an ethos of human mastery over nature; and by positioning the economy as separate from social and ecological life, thereby situating the economy as a priority above all else. One of its key underpinning assumptions is the conflation of modernity with development and its attached hierarchization of the plurality of economic, political and cultural systems existing across the globe, which continue to position the GS as lagging behind (Mignolo, 2018).

Eurocentrism also reinforces relationships of inclusion and exclusion. Other epistemologies, such as those with holistic perspectives, may not align with the available methodological instruments of western epistemology (Escobar, 2016). Sociologist Patricia Hill Collins (2019) asserts that western epistemological and methodological tools are incapable of making sense of holistic entities. Because of this, those perspectives remain absent from dominant west-centric understandings of the world, and when advanced they are treated as particular and subjective. Meanwhile, empirical reality may diverge significantly from the world as described with the required level of theoretical abstraction to constitute legitimate scientific knowledge. In other words, what cannot be comprehended with the criteria of western science is rendered invisible due to this epistemological dominance. This understanding compels us to pay close attention to other epistemic forms, while underlining the importance of paying attention to the injustices that silence and deprioritize diverse ways of knowing.

Cultures and societies are not static, but rather dynamic and diverse within themselves. Accordingly, knowledge is built on a variety of ontological commitments, epistemic configurations, and practices of being, knowing, and doing (Escobar 2018). It is relational, contextual, practice-based, and lived in (Blaser and de la Cadena, 2018). A pluralistic approach acknowledges and embraces this multiplicity and recognizes that knowledge is produced from various locations, thus bringing it closer to popular struggles and daily life.

The notion of Eurocentrism is relevant because it invites us to scrutinize the embeddedness of mainstream CE literature in Eurocentric knowledge, especially considering its previously noted technocratic and market-driven dimensions. Importantly, it is also grounded in the modernizing project, insofar as CE is progressively taking center stage in debates and discourses on sustainable development, and it is represented as a universal new path toward progress, able to answer the need of the market and those of the environment. In the next section, we describe strategies and actions shared across the JUST2CE project, which we undertook in our efforts to make visible and disrupt entrenched patterns of Eurocentrism, embed reflexivity, and introduce diverse knowledge production into our collective knowledge production practices.

9.3 Embedding decolonial lenses in JUST2CE

9.3.1 Project Level

JUST2CE's research network is highly diverse with regard to academic backgrounds and familiarity with debates on decolonization. It was thus important to start by building some common understandings around what decolonisation might mean for the JUST2CE project and inquire how we could contribute to this collective effort. Our exploration of these questions across the network were informed by action research methodologies. These approaches aim "to bring together theory, method, and practice as people work collaboratively towards practical outcomes and new forms of understanding" (Frisby, Maguire et al., 2009:14). We aimed to start a process of learning and reflecting on our actions and choices so as to a) identify strategies to enhance the network's engagement with decolonization, and b) create a safe space where challenges and dilemmas could be explored, including those arising from our diverse background and positionalities.

At the project level, there were three key events/actions aimed at creating a common base across the project, including: a session on decolonization at the kick-off meeting (September 2021), a session on decolonization at the annual consortium meeting (July 2022), and inclusion of decolonization as an item for discussion in various progress meetings. More specifically, in the various work package meetings (particularly in WP2, on case studies), we endeavoured to systematically include reflections on decolonization, which implied questioning taken for granted assumptions regarding our own research practices (see section 3). In addition, before and after these meetings, documents were shared within the network, summarizing key points for discussions. Sharing these documents provided the opportunity for all involved to add their comments and reflections, which were further discussed during meetings or via emails. Furthermore, decolonization was included in other project-level events. For instance, the two-day internal training that took place in October 2021, which involved all researchers and partners, and included two sessions on decolonization in which we had the opportunity to further reflect on and discuss the relevance of decolonial thought within the JUST2CE project.

The first session on decolonization at the kick-off meeting (September 2021) sought to open a discussion on how decolonization was understood within the project network, in order to begin to establish a common understanding across the different work packages. During this initial session, we started to identify some key issues around which to create our collective and individual reflections on decolonizing JUST2CE. We focused on four issues in particular: knowledge/local knowledge, research design, the role of researchers, and reflexivity. These four issues, which we discuss in section 10.3.2 below, should be understood as 'sensitizing' nodes around which we problematize the western scientific canon and start re-conceptualizing crucial dimensions of our research project. We chose these four issues because they are cross-cutting issues addressed in the literature on decolonization, and because they all touch upon key dimensions of research processes, which are familiar to different extents to all researchers involved in JUST2CE.

During the annual consortium meeting (July 2022), we continued our collective reflection by focusing on four different sensitizing 'concepts', namely coloniality, coloniality of power, coloniality of knowledge, and coloniality of being (Maldonado-Torres, 2007, Ndlovu-Gatsheni , 2013). Ndlovu-Gatsheni (2015) suggests seeing coloniality as an "octopus constituted by hierarchies of domination, control, and exploitation" (p. 487), which defines identities

(coloniality of being), knowledge (coloniality of knowledge) and current global power structures (coloniality of power). We chose these concepts as they allowed us to advance the collective reflection, we started a few months

earlier. While at the kick-off meeting in September 2021, we aimed to create a basis to problematize some well-established rules of research processes, in this second collective workshop, the aim was to deepen our individual and collective understanding of what decolonization might mean in our project.

9.3.2 Kick-off meeting

Problematizing local knowledge, embracing radical contextuality

Our intervention at the kick-off meeting aimed to explore what decolonial knowledge might be, what its characteristics are, and what kind of knowledge might contribute to contrast and subvert the western-centric knowledge informing dominant debates on CE. We discussed the debate over a shift in emphasis toward local knowledge and the associated risks of romanticization (Jackson 2013), exoticization (Okere, 2005), and simplistic framings of this move as a solution to western dominance (Briggs, 2013). Our intention was to recognize the importance of valuing epistemologies other than the western canon, giving voice to local communities, and producing locally relevant knowledge. At the same time, we recognize the complexities of knowledge production and legitimization dynamics and practices outside of the western world (Harding 2011). We believe it is critical to investigate the connections between local and western knowledge systems, taking into account how they are shaped by existing asymmetries.

We expanded on the invitation of Okere et al. (2005) to understand local knowledge as the result of "mutual push and pull between the people and the potential in their history and life-world, task-related networks and living communities" (2005:3). Thus, for us, local knowledge is contextual, constantly negotiated, and inextricably shaped by contestations, power asymmetries, and dynamics. In this regard, "radical contextuality" (Escobar, 2008) encourages a deeper embodiment and embedding of research contexts (human, cultural, symbolic, historical, economic, etc.). This requires a radical approach to research that engages deeply with participants and local communities, drawing on their contexts rather than familiar perspectives and standards (Dyll 2020; Keeyaa 2020). Engaging with local contexts would have three benefits: 1) it would broaden epistemological and ontological perspectives; 2) it would supersede the comparative lens that often underpins research about the GS (Mamdani, 2004); and 3) it could allow for greater local impact so that research is not produced merely for academic circles/purposes (Keane, Khupe, and Seehawer 2017).

Starting with this context, a number of questions were raised during the kick-off meeting: What role can local knowledge play in a project like JUST2CE, which already has clear validation mechanisms shaped by Eurocentric interests, values, and epistemological assumptions? How can we create synergies between different knowledge systems and our diverse backgrounds? What strategies can we employ to connect micro and macro lenses in order to engage with the uniqueness of our research contexts without ignoring overarching geopolitical-economic patterns and dynamics? What are the risks of radical contextuality for JUST2CE?

Liberating research design: moving toward an open-ended approach

Another topic we discussed at the kick-off meeting was what kind of overarching research design could help us achieve our goal of decolonization. We considered how the dominant linear, deterministic understanding of the

research process, as well as the associated neglect of the role that indeterminacy and contingency play in social (research) processes, might undermine meaningful engagement with the contexts in which the research is conducted. Recognizing the constraints imposed by following a structured research design, as well as calls for epistemic de-linking from the web of imperial knowledge (Mignolo, 2009), we proposed that efforts to decolonize knowledge and research would benefit from a stronger orientation toward an open-ended approach (Girei and Natukunda, 2021). This entails focusing on the 'becoming' rather than the state of 'being' of social formations and actors, as well as the interconnections and overlap among social actors, disciplines, and spaces (Alff and Hornidge, 2019:1148).

Based on this context, we identified the following questions as starting points for our individual and collective reflections: to what extent and how can we 'liberate' our research approach while remaining compliant with the funder's contractual obligations? What are the constraints we anticipate, and what steps can we take to reduce them? What are the advantages and disadvantages of adopting open-ended orientations?

Towards co-production in research roles

We propose considering a co-production orientation as an epistemological and ethical stance that contributes to not only disrupting the pattern of silencing and misrepresentation of southern voices and perspectives, but also asserting human beings' right to shape knowledge about themselves, their communities, and their organisations (Reason, 2001). This necessitates an active reconfiguration of the asymmetries that frequently shape South/North research collaborations (Parker and Kingori, 2016; Carbonnier and Kontinen, 2015), in which high-income countries continue to be the primary beneficiaries of international research collaborations, particularly in terms of authorship, international profile, and influence in the research process.

In this sense, Erdal et al. (2015) invite us to consider inequalities in international research as an inherent and rooted dimension that requires constant analysis and reflection, as well as corollary conscious choices about our practises and commitments—at the micro and macro levels, at home and abroad, with our international partners and with our colleagues and managers in our own institutions. In this regard, the JUST2CE project, which brings together a diverse group of researchers and institutions from Europe and Africa, is an ideal setting for identifying and implementing more just and equal collaboration models.

By collectively reflecting on this foundation, we identified a number of questions that we addressed in planning the work of the different work packages of JUST2CE. The questions we identified are the following: What challenges do we anticipate in establishing and maintaining equal and just relationships among researchers and participants? What strategies can we use to move toward co-production, and how can we support one another in this process of learning? What actions must be taken to create and nurture a culture in which we are all responsible, albeit for different reasons and from different positions, to challenge existing asymmetries and build more just international research collaborations?

Participatory and self-reflective practices

Our understanding of how we as researchers approach our engagement in the research process is not only intellectual, but also emotional, ethical, and political in nature. This choice is based on an epistemological perspective that rejects the demands for "suprapolitical objectivity" (Said, 2003), recognizing that knowledge must be entwined with ethical and political threads. Apolitical abstraction and neutrality may prevent researchers from

appreciating the broader meanings and consequences of their work and the possibility of causing harm and further naturalising and legitimising existing inequalities (Abdelnour, 2021). It follows that researchers must constantly investigate who is served by the choice of specific research practices and interventions (Tuhiwai-Smith, 1999). Furthermore, researchers should consider and make explicit which worldviews they espouse, as well as their impact on the lives of those involved in the research. In this sense, self-reflexive practice for us entails a critical examination of the assumptions, values, and interests that underpin and guide our actions and thoughts, demanding not only self-awareness on the part of the researcher, but also the willingness to question our methods and assumptions (Alvesson and Deetz 2000). In the sociology of technology and responsible innovation, this is directly related to the concept of reflexivity and second-order reflexivity (Stilgoe et al 2013).

Our understanding of reflexivity is based on Abdelnour and Moghli's (2021) concept of 'political reflexivity', which invites researchers to "account for their positionality and privilege in relation to power disparities, seek out and centre marginalised voices in their work, and, where possible, subvert those structures that do the marginalising" (p.2). In this sense, reflexivity serves the emancipatory goals of liberation and reparations. Building on this foundation, we began to address the following questions in the context of JUST2CE: how can we engage in self-reflective practice individually and collectively? How can we hold this process accountable and transparent while also acknowledging boundaries and the limits of what can be known/said/shared? Who is our project serving, who will benefit from it, and how will we deal with competing interests? How do we seek to challenge the dynamics and structures of epistemic oppression, and what role do we play in reparation and liberation?

In the previous pages, we described what we did at the kick-off meeting in our effort to embed a similar lens in the various segments of research included in the JUST2CE project, committed to revealing and contrasting the Eurocentric gaze in our own work. We identified several questions related to four different aspects of our research (knowledge/local knowledge, research design, the role of researchers, and reflexivity). We saw these four issues as 'sensitising' nodes around which we problematise the western scientific canon and start re-conceptualising crucial dimensions of our research project

9.3.3 Consortium meeting

At the consortium meeting, we decided to build on the results of our previous interventions, and deepen our collective reflection on decolonising JUST2CE by exploring the notion of coloniality, and its ramifications as *coloniality of power*, *coloniality of knowledge*, and *coloniality of being*. We started the session by providing some definitions of these terms, and then we continued first with an individual reflection, followed by a team reflection/discussion and finally with a plenary reflection/discussion. We started by suggesting decolonisation as an engagement with how coloniality shapes past, present and future histories and possibilities, with the aim of contributing, through JUST2CE, to confronting, contesting and subverting.

As part of this intervention, we explored specific ramifications of Global coloniality, such as the coloniality of power, coloniality of knowledge and coloniality of being (Ndlovu-Gatsheni, 2013; see also Jimenez et al., 2022), reflecting more broadly on the legacies of colonialism in our academic background, the socio-economic-political contexts we inhabit and in our identities. We reflected on how the notion of global coloniality relates to our project at different levels, starting with the fact that it is funded by the European Union. One of the issues the group discussed was whether our complicity with the European Union fundamentally jeopardises any attempt to decolonise our

research (see also Vela Almeida et al., 2023). More specifically, we critically interrogated the political meaningfulness and intellectual honesty of engaging with decolonisation from within a project such as JUST2CE, which already has clear validation mechanisms shaped by Eurocentric interests, values and epistemological assumptions. We inquired what constraints those validation mechanisms pose to our commitment to decolonised approaches to knowledge production.

However, we also acknowledged that our research, because of its focus on justice and equity, cannot eschew engaging in decolonial and postcolonial debates. For instance, the consortium meeting was held in Greece, and to travel to and attend it was certainly more troublesome for our African colleagues. In fact, despite a long preparation to ensure their participation, none of them could attend the meeting. So far, we have understood such engagement mainly as individual and collective reflexive practices, which do not and cannot have 'deliverables', because they are ongoing, open-ended and focused on problematisation rather than problem-solving. Such an engagement, however, also represented an opportunity to reflect on how global coloniality shapes relations and arrangements within our research network, and thus directly informs our modes of collaboration and outputs. This includes all of the project's deliverables, especially how we collectively approach their design and review.

In this section, drawing on the extant literature and initial collective reflections, we have drawn out the key dimensions that we believe are relevant to our commitment to embed decolonial lenses in JUST2CE – local knowledge, research design, the role of researchers, and reflexivity. However, the project develops through seven work packages, each of them with distinctive features, including different research teams and different research contexts, across which these dimensions cut. In the following sections, we analyse more specifically how these dimensions are relevant to the different work packages, what challenges we envisage in each of them, and how they can offer a distinctive contribution to developing a decolonial research process.

More broadly, as we shall see in the following pages, our engagement with decolonisation, meant that we agreed to scrutinize, across all work packages, our practices and arrangements with the lenses offered by the notion of global coloniality and its ramifications. We also decided to address within all work packages the questions that emerged at the kick-off meeting. In the following section, we explore in more detail how a selection of the project's work packages engaged with decolonisation in the initial 12 months of the project, briefly outlining how the collective reflexive practice informed the planning of the different work packages.

9.4 Decolonial engagement across the JUST2CE Work Packages

WP2 Enablers and barriers to the transition towards a Circular Economy

WP2 aims at co-creating a multidimensional framework that will be used to identify enablers and barriers to the implementation of just CE practices. Drawing upon empirical and conceptual elements from a variety of fields (such as FEE, PE, EJ, DS), the multidimensional framework (Deliverable 2.1: Ripa et al, 2021) provides an epistemological, theoretical and methodological framework for addressing our key questions, namely: "How do CE transitions unfold across different geographical context[s]? Whose voices and interests are heard and whose voices and interests are neglected? How are costs, benefits and opportunities of CE distributed at different scales and among different social realities?" (p27). These leading questions have guided the analyses of ten organisations in Europe and Africa, which are engaged in different ways in enacting CE concepts and practices, to understand

the main barriers and enablers (from both a technological and relational/economic/social points of view) to the implementation of just CE initiatives. The cases are heterogeneous in many respects: representing different geographical contexts (Italy, Spain, Portugal, United Kingdom, Morocco, Ghana, Zimbabwe, South Africa), different supply chains (plastics, food, critical raw materials, etc.), different scales of analysis (from local to global initiatives), and different types of institutional settings (formal/informal).

The insights gathered from the application of the multidimensional framework to the case-studies' analyses were meant to expand our understanding beyond the current narrowly technical focus of most CE knowledge production. The design of the multi-dimensional framework, and the accompanying decision to open it up to research practices and framings that are emergent from collaboration among local research groups, research subjects, and sites was not part of the original project design. Rather, the development of this anti-universalist research framework was informed by our work to decolonize the project, aided by the RRI interventions that were built into the project design from the beginning (discussed more in the following section on WP3). We advance the multi-dimensional framework as one that can help to counter the domination of the mainstream western view of CE over other concepts and ways of knowing. Thus, instead of positioning our knowledge as abstract and universal, we seek to generate diverse cases from diverse knowledge traditions, each of which offers a distinct angle on CE-making and CE potentiality. In this sense, by exploring (circular) practices through a variety of context-specific analytical lenses, and by keeping the epistemological conversation alive throughout the entire duration of the project, we aim to engender engagement across multiple modes of thought and epistemological frameworks.

WP3 Towards a framework for a Responsible Circular Economy

WP3 develops a framework for a 'responsible approach to the CE transition' (D3.2: Celebi et al., 2022), which aims to outline tools and methods oriented to industry, SMEs, cooperatives and community-based initiatives to embed principles of RRI in the design of circular practices.   RRI is a science policy concept whose dimensions have significant overlap with the decolonial research approaches, but with a different history and focus. Despite its general appeal to universalist notions of responsibility, RRI has been co-constituted with specifically European imaginations of democracy and citizenship (Frahm et. al. 2021), rendering it inadequate to address the important challenges to the presumed universality of western knowledge and value systems brought to the fore by decolonial debates (Doezema et al 2019).

Thus, although both RRI and decolonial approaches focus on increasing participation, practicing reflexivity, and fostering responsiveness in processes of research and technological development, they take these elements up in distinct ways. We frame RI for the CE as "encouraging alternative thinking and reflection, and the consideration of perspectives from a wide range of stakeholders and contexts" (Purvis et. al. 2023). The overlaps and discontinuities between RRI and decolonial approaches present an opportunity to advance and strengthen both of these approaches in relation to CE research and in the JUST2CE project. An avenue for such collaboration is offered by the elaboration of inclusion and reflexivity, which are important for both RRI and decolonial approaches. Thus, rather than amplifying the voices of those who already overwhelmingly participate in articulating notions of responsibility, good futures and shaping epistemic approaches (predominantly western scientists and technologists situated in elite institutions), decolonial lenses, and in particular the focus on radical contextuality, invite us to interrogate and explore what forms of responsibility might be envisaged from different epistemic

perspectives and geographical locations. By doing so, we also aim to contribute to strengthening the institutional recognition of the need for decolonial research practices aimed at opening research design.

More specifically, this project includes a contractual commitment to implementing RRI in our own practice and providing tools to help other CE researchers do so as well, embedding processes of anticipation, inclusion, reflexivity and responsiveness into research design and practice across the work packages. As part of this work, we create formalized spaces of reflexivity across consortium activities, aiming to open up and situate our research design and methods, while remaining responsive to our commitments to research funders. This has already had concrete impacts on the project. One example of this can be seen in the development of the multidimensional framework in WP2, which altered the original format of the case design, as outlined in the project proposal. The inclusion of RRI in the project proposal not only inspired the process by which those changes came about, enabling us to embed decolonial practice into the framework design; but RRI also offered terms in which we could defend those changes in front of those in charge of the funding review process, making our efforts of decolonialization of the WP legible as part of a broader set of practices of responsible research.

WP4 An integrated Decision Support System for Responsible Circular Economy practices

WP4 aims to develop a decision support system that can guide organisations in transitioning towards a CE. It adopts the ambition to develop a tool that addresses the limitations of existing approaches, starting with the neglect of social dimensions, and the predominant role attributed to economic indicators. Decolonial and postcolonial debates invite us to consider some important aspects, raising novel questions that can help us advance the limitations highlighted above. In particular, within the first 12 months of the project, embedding decolonial practices within the design and development of the Decision Support System (DSS) focused on the following three aspects: the use of the tool across different geographical locations, uneven access to data across global contexts, the nature of quantification.

WP4 aims to develop a tool that can be used in different geographical locations, and thus importantly needs to consider how to balance the aim of ensuring the tool's usability across contexts and sectors, with the needed attention to the different socio-cultural-economic contexts. In essence, the initial conceptualisation of the tool, which has been heavily influenced by the perceived desires and priorities of its funder, the European Commission, is deeply embedded in a universalist paradigm. This presents a clear contradiction between the nature of the tool and the ambitions of the project from a decolonial perspective. A departure is thus necessary from a DSS in the traditional sense, as a highly technocratic tool for aiding corporate decision making, to something which at least attempts to onboard the decolonial critiques outlined above.

Linked to this question of universalist use of the tool are more operational questions relating to accessibility, including the language the tool is presented in, and its access offline and from mobile devices. By developing an English language tool largely within European Higher Education institutions, already questions arise relating to its ability to transcend eurocentrism. How too can we take into account the diversity of meanings and priorities existing in the different contexts where the tool will be used? Many of these questions have no clear answers, and limited resources have been allocated within WP4 to address them.

Such a tool as a DSS, requires various data to provide an output to its user. At an early stage it is unclear exactly the nature of data that could be required, and indeed, methodologically there is often a back and forth of deciding which questions to answer dependent on what data is readily available. It is thus necessary to confront issues

relating to data coverage disparities between the GN and GS here, and how this has the potential to bias any tool we develop. This is particularly pertinent given the feedback between data availability and the purpose of the tool. The DSS, despite considering a variety of qualitative indicators and dimensions, is predominantly based on quantification practices, whose foundational assumptions (e.g. universality, neutrality, and objectivity) are at the very core of decolonial and postcolonial critiques of western modernity. In this sense, decolonial lenses invite us to relinquish any claim of neutrality, objectivity or universality and rather explore the political and ethical dimensions of quantification and whether and how it is possible to make quantification responsive and sensitive to the contexts where it is employed. These inherent contradictions and how they play out within the context where concrete deliverable are required from the funders of the project will be important to reflect upon.

WP5 Policy models for evaluation and planning of Circular Economy practices

WP5 aims to develop a formal Stock-Flow Consistent Input-Output (SFC-IO) dynamic model (or a suite of such models) to assess a variety of CE policies and practices. In the last decade, several ecological SFC and IO models have been developed (Berg et al. 2015). These models are usually better suited to deal with a variety of economic, environmental, and social variables, compared with the dominant form of neoclassical-like economic models. Nevertheless, such variables usually rely on rather simplistic measurements of impact (e.g., carbon emissions), typically have a limited geographical scope (as most of them are single-country models), and largely ignore social issues beyond basic metrics like employment. Analysing, and computationally modelling the transition towards a CE in the manner proposed within JUST2CE's WP5 requires a deep understanding of production processes, and the resulting trade and financial flows, which usually have idiosyncratic effects on countries, regions and social groups. For this reason, any model should be flexible enough to account for a variety of economic, financial, environmental, institutional and social dimensions. It is important also to reflect on the severe limitations the chosen approach of computational macroeconomic modelling presents for meaningfully embedding a decolonial approach here.

Informed by the critiques of mainstream CE discourse which frame the JUST2CE project, the North-South divide is taken as a core focus of the model, and is intended to be analysed both across different geographical areas, as well as explicitly considering the interaction of each area with the rest of the world. Hereby, the model should produce a method for broadly evaluating unequal exchange, and investigating impacts in the GS of CE practices implemented in the North. Model codes and data are intended to be freely accessible on relevant repositories, allowing other researchers globally to use, question, and/or further develop our work. The modelling team are well aware of the social and political nature of their work, and that the tools used here are not neutral, as they implicitly define the research questions that can be addressed, and the way it is done. Nevertheless, it is important to anticipate how such tools may be utilised for claims of false scientific neutrality. It is for this reason, that it is intended that the WP5 team try to maintain dialogue with colleagues working on other WPs, in which other, mainly qualitative, tools are employed, and in particular pay attention to the discussions relating to RRI from WP3.

9.5 Conclusions

A decolonial lens encourages us to critically examine the power dynamics embedded in CE and to reframe our perspectives by adopting an open-ended, reflexive approach. The process of engaging with decolonial lenses in JUST2CE is inevitably lengthy, ongoing, and uncertain, but it has provided us with the opportunity to problematise

the knowledge we employ and produce. It has allowed us to investigate our own limits as well as those embedded in our practices. In some cases, this has been a challenging process that has made us reflect on the broader structural dimensions we are embedded in, wondering if it really is possible to adopt a decolonial lens in an EU-funded project, leading us to reflect on whether other labels would be more appropriate to frame the work we are doing (e.g. decentering). However, through the individual and collective reflections that have accompanied the project, we have become increasingly more aware that if we aim to overcome the eco-modernist stance of dominant CE paradigms, we cannot shy away from a critical engagement with the epistemic injustice and blindness that are foundational to those extant paradigms of CE-making.

Future work aims to reflect upon how this engagement developed through the latter two years of the project.

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Part II. MEASURING A JUST TRANSITION TO CIRCULAR ECONOMY

JUST2CE

A Just Transition to Circular Economy