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Policy Briefs on Responsible Circular Economy

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A Just Transition to Circular Economy

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JUST2CE

A Just Transition to Circular Economy

PROJECT No. 101003491

The H2020 Project "JUST2CE" (A Just Transition to the Circular Economy) aims at critically and thoughtfully understanding under which conditions a responsible, inclusive and socially just transition to a circular economy is possible and desirable. It investigates what technical, geopolitical and social factors can enable or hamper such transformation and how these aspects can contribute to developing transitional policy measures. The project identifies enablers and barriers to Circular Economy in a number of key strategic sectors – selected among those indicated by the EU Action Plan for Circular Economy – such as food production and waste, water management, critical raw materials and production in complex global supply chains.

History Chart

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JUST2CE
A Just Transition to Circular Economy

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PART II

List of abbreviations

AIRR	*Anticipation, Inclusion, Reflection, and Responsiveness*
CE	*Circular Economy*
EEE	*Electrical and Electronic Equipment*
EU	*European Union*
GDP	*Gross domestic product*
ICSs	*Industrially contaminated sites*
JTS	*Just Transition Fund*
MiTE	*Italy's Ministry for Ecological Transition*
POPs	*Persistent Organic Pollutants*
RRI	*Responsible Research and Innovation*
SCP	*Sustainable Consumption and Production*
SIN	*Siti di Interesse Nazionale*
UK	*The United Kingdom*
WEEE	*Waste from Electrical and Electronic Equipment*
WP	*Work Package*

1. Summary

This report presents some of the main findings and policy-oriented discussions that were held at the JUST2CE national co-creation workshops organised in Spain (Barcelona - 21st April), Greece (Thessaloniki - 30th March), Italy (Taranto and Campania region – 14th April), South Africa (Cape Town and Johannesburg – 14th and 30th March respectively) and the United Kingdom (Sheffield – 27th April). The Italian workshop was divided into two sessions (Taranto and Campania region), of which two policy briefs were produced. However, the two South African workshops were combined into one policy brief.

The results of these policy briefs call specific policy makers at local, regional and/or state level to take action and develop public policies and initiatives that integrate social justice elements in the Circular Economy (CE) spectrum.

2. Background

The JUST2CE project aims at understanding, in a critical and thoughtful way, under which conditions a responsible, inclusive and socially just transition to a CE is possible and desirable, what technical, geopolitical and social factors can enable or hamper such transformation and how these aspects can contribute to the development of transitional policy measures. JUST2CE is based on the initial assumption that a critical evaluation of the CE paradigm, of its economic, societal, gender and policy implications, and of the outcomes of its implementation has not been conducted yet. A direct consequence of this gap is that the political economy and geopolitics of transition have been neglected in CE studies. European, and more in general global productive systems are characterised by geographical specialisation that seek to maximise profits along the traditionally designed linear supply chains. These, often unequal and asymmetric, relations might seriously hamper the transition to a CE.

The project will identify enablers and barriers to CE in a number of key strategic sectors – selected among those indicated by the EU Action Plan for CE – such as food production and waste, water management, critical raw materials and production in complex global supply chains.

The results of this analysis will be used to develop a decision support system and macroeconomics analytical tools to design new or improve existing CE practices.

The conviction underpinning the project is that the success of a transition towards a sustainable circular economy does not merely depend on the development of new technologies - artefacts or processes - but also in the reconfiguration of the governance of productive processes into more democratic and participatory mechanisms of designing and managing technology.

Both the available literature and the findings of WP1, WP2, and WP3 shows that the CE has been generally presented as a techno-based solution that would be able to combine the imperative of economic expansion that characterises the neoliberal capitalist mode of production, with environmental concerns. Nevertheless, such a framing of circularity remains highly contested. According to an increasing number of scholars, this manifestation of a CE is likely to be scientifically unsound, it over emphasises the role of technology and it almost totally neglects the social aspects of transition such as gender, labour and global environmental justice. The framework developed in WP3 overtly challenges the dominant framing of CE by drawing on the principles of responsible research and innovation (RRI), and presenting them as a means for embedding the CE as a wider societal transformation attuned to values and visions of justice. It aims to provide conceptual guidance to imagine a just CE transition which strikes a balance between the desire for openness in setting normative values across broad stakeholder groups, whilst confronting the complexity of operational issues and policy support. Thus, the framework encourages alternative thinking and reflection, and the consideration of perspectives from a wide range of stakeholders and contexts.

Due to the multi-scale nature of the CE, there are numerous stakeholders relevant to the transition. By addressing diverse groups' specific needs and experiences, localised networks emerge as collaborative platforms that can influence transition plans and actions. Collaborative discussions should cultivate political groups in order to gain legal recognition of self-determination on a global scale. When significant interactions among policymakers, industry, and society groups are established, the necessary technical, financial, and political resources may initiate a just CE transformation. A just CE should aim to identify all relevant parties, i.e., a wide range of agents and consequently, a wide range of liabilities.

In this context, the JUST2CE's WP3 aims to deliver RRI training to the members of the consortium and their associated partners, develop a framework for designing CE practices that include the principles of RRI, explore through deliberative and inclusive future-oriented methods potential transition scenarios, as well as inform scholars, practitioners and policymakers about deliberative methods to foster a transition to CE.

3. Introduction

Following this line, and with the aim to create a number of scenarios to implement a transition towards a just CE and reflect about the policy actions that should be implemented to achieve them, six national workshops were organised in Spain, the United Kingdom (UK), Greece, Italy and South Africa (Johannesburg and Cape Town) where future-oriented methods such as horizon scanning techniques, scenario building and transition design were implemented. The workshops gathered members of civil society, industry representatives, academia and policy makers from national, regional and local levels in their respective countries. All of these workshops aimed at creating a number of scenarios (foresight exercise) to foster the just transition of the CE and reflecting about the technology and political actions that should be implemented to achieve them in each specific national context.

A comprehensive review and analysis of the main outcomes and findings of these workshops can be found in Deliverable 3.3, which is available at the JUST2CE website.

- <u>The National Workshop in Greece</u>

The Greek workshop was conducted in collaboration with two local organisations, *Mamagea* and *InCommon*. The workshop aimed at preparing a preliminary version of a *"skeleton of future images"* in the transition towards a just CE model and to reflect about the technology and political actions that should be implemented to achieve this objective in Greece. The workshop was conducted under the broader futures-thinking and foresight framework, and gathered representatives from all parts of the quadruple helix, i.e., Government, civil society, academia, and industry).

- The National Workshop in Spain

The Spanish workshop brought together 60 relevant actors from different sectors (public administration, business, civil society and research & innovation) of the CE in Spain and Catalonia. The workshop aimed at collectively fostering the debate and the exchange of knowledge among the participants about the different scenarios of implementation and transition towards just economic models, the policy and stakeholders' actions needed for their implementation in Catalonia and Spain, and the role of technology and society in these processes. The workshop also delved into how gender inequalities, labour unjust relationships and social interactions can be improved to guide the just, inclusive and socially responsible transition towards CE in both at regional and national level.

- The National Workshops in South Africa

The South African workshops took place in Cape Town (14/03/2023) and in Johannesburg (30/03/23), and were organised and implemented by the African Circular Economy Network (ACEN). Different activity sectors were represented during the workshop and in total 56 stakeholders were present during the discussions. Both South African workshops aimed at creating a number of scenarios to consider how a transition to a just CE might take shape, and to reflect on the technologies and political actions that should be develop to achieve this transition.

- The National Workshop in the United Kingdom

This workshop was developed in collaboration with the Reyt Repair, a community repair shop and social enterprise based in the Pitsmoor area of Sheffield. The outcome of this partnership was the organisation of a community event open to the general public and key stakeholders in the sector which explored the role of the *"repair economy"*. The workshop-event fostered the debate and the exchange of experiences on the social benefits that community repair and economy have at the community level by representing a space for learning and skill sharing, a hub for community activity, and an outlet for people without work.

- The National Workshop in Italy

The National workshop in Italy was articulated in two sections. Each session was envisaged as a dialogue with a multiplicity of actors - institutional, research, civil society, local communities - on the implications for the orientation of policies, planning and management of transition processes in two distinct areas by means two cases studies: the e-waste management in the Campania region (coordinated by Prof. Renato Passaro, Research Unit of the Parthenope University) and the industrial contaminated site of Taranto (coordinated by Prof. Stefania Barca, Research Unit of the University of Santiago de Compostela).

4. Policy Briefs

The following section contains the policy briefs developed by the organisers of each national co-creation workshop. The different policy briefs assess the prospects and challenges of transiting towards just CE models in each respective territory, while call policymakers at all levels for action to include principles of social justice and RRI into policy-design and implementation.

The six policy briefs follow the same structure, including 1) a short introduction of the situation of the CE or the problematic (research topic) in each country/region, 2) an overview of the prospects and challenges to foster a just CE at the national/regional/local context, and 3) a series of recommendations to the competent authorities to accelerate the just transition and to apply RRI concepts in decision making and implementation processes.

The Italian workshop has been divided into two policy briefs (one per session), including the case of Taranto and industrially contaminated sites on the one hand, and the case of the Campania region and the waste from electrical and electronic equipment on the other hand. However, the two workshops held in South Africa were merged into one same policy brief.

5. Comments and Conclusions

As revealed through the diverse policy briefs presented from various regions, the concept of a just transition to a CE goes beyond the confines of economic models; it is a multidimensional

endeavour encompassing social equity, environmental sustainability, and responsible governance. In this context, the four dimensions of Responsible Research and Innovation (RRI) – Anticipation, Inclusion, Reflection, and Responsiveness (AIRR) – provide a holistic framework for evaluating and advancing the principles of a just CE.

Anticipation: Navigating the Complex Landscape

The policy briefs underscore the complex interplay of socio-economic, environmental, and cultural factors in the transition to a CE. As evident in the cases of Greece, Campania (Italy), South Africa, and Spain, the transition involves intricate challenges and opportunities specific to each region. Anticipation, as an RRI dimension, calls for foresight and preparation. By incorporating anticipatory approaches, policymakers can identify potential hurdles and unintended consequences early on. Greece's Circular Transition Business Plan illustrates the importance of setting criteria for green public procurement and secondary raw material markets, reflecting an anticipatory strategy to enhance resource efficiency. Similarly, South Africa's engagement with various stakeholders and exploration of cross-sectoral transitions reflect a commitment to anticipate the complexity of a just CE.

Inclusion: Empowering Diverse Voices

Inclusive engagement is a cornerstone of a just CE. The policy briefs underscore the need to empower marginalized communities, informal workers, and vulnerable groups to ensure that the transition benefits all. South Africa's consideration of marginalized groups' inclusion within the public and private sectors exemplifies the inclusion dimension. Recognizing the informal waste collectors in Spain and their integration into formal waste management is a key example of fostering social justice and ensuring equity in CE practices. Inclusivity ensures that the benefits and burdens of the transition are distributed fairly and that no one is left behind.

Reflection: A Learning Journey

Reflection in RRI encourages a continuous learning process that critically evaluates the strategies in place. The policy briefs highlight the importance of reflecting on both successes and

shortcomings. Spain's focus on eco-design and material performance reflects the need for self-assessment, challenging assumptions, and advancing towards more comprehensive indicators. The experience of Reyt Repair in the United Kingdom illuminates the value of reflection in acknowledging unforeseen barriers and creating adaptable solutions. A reflective approach ensures that CE strategies evolve in response to emerging challenges and new insights.

Responsiveness: Adapting to Dynamic Realities

The just transition to a CE demands responsiveness to changing dynamics and stakeholder needs. The policy briefs reveal that policy frameworks must be agile, capable of addressing evolving challenges. The recommendations for the United Kingdom's community repair initiatives exemplify responsiveness. Local authorities offering financial support and educational integration adapt to emerging requirements and ensure the continuation of such initiatives. Similarly, Spain's emphasis on embedding social justice aspects into CE policies demonstrates a commitment to responsive governance. By heeding stakeholder feedback and adjusting strategies accordingly, policy frameworks can effectively steer the transition.

Fostering a Just Circular Economy: A Collective Challenge

In conclusion, the policy briefs from Greece, Campania (Italy), South Africa, Spain, and the United Kingdom collectively illustrate that a just transition to a CE is a multidimensional and collective challenge. The AIRR dimensions of RRI provide a fitting lens through which to assess these policies and recommendations. RRI illuminates the intricate challenges and multifaceted opportunities inherent in the pursuit of a just CE.

The journey towards a just CE demands not only the transformation of economic models but also a reimagining of societal values and research practices. The policy briefs exemplify the diverse strategies taken by different regions, all aimed at realizing a future where social equity, environmental sustainability, and responsible governance converge. As we move forward, it is imperative that these AIRR dimensions remain at the heart of our efforts, guiding us towards a CE that is not only just but also transformative and resilient.

JUST2CE

A Just Transition to Circular Economy

The circular transition in Greece

National Co-Creation Workshop

Thessaloniki (Greece)

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A Just Transition to Circular Economy

Policy Brief – Greece

The circular transition in Greece

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1. Introduction: Circular economy in Greece

The transition to a low-carbon, resource-efficient and CE is of paramount importance for Greece to ensure environmental protection, greening of the economy, create new jobs, fight unemployment and support innovation in production, consumption, value chain of materials, sharing use methods and reduction, reuse and recycling of waste, in order to extend the life cycle of products and optimize the resources, water and energy. In the past few years, the Greek government has set up a series of strategies and related legislation aiming at complying with the EU's Green Deal including the Circular Economy Business Plan and the FIT for 55 targets. Central to this effort is the national ***"Circular Economy Action Plan"*** which is in line with the EU Circular Economy Action Plan.

The **Greek "Circular Economy Action Plan"** is being implemented through 5 action lines:

1) Activities promoting sustainable production and industrial policy.
2) Activities targeting sustainable consumption.
3) Activities targeting minimized waste with higher value.
4) Special actions for basic priority products (i.e., Batteries, Electric Vehicles and Plastics)
5) Horizontal actions (i.e., a CE observatory, an action plan for one-use plastics, and funding of research infrastructure)

The Circular Economy Action Plan is complemented by:

- The **National Energy and Climate Plan**
- The **National Plan for Waste Management**
- The **National Plan for Prevention of Waste Generation**

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In terms of funding instruments for all the above, two are the main sources of funding:

- The **EU Structural Funds** which will dedicate to environmental related actions a sum of public investments around 3.6 billion € for the period 2021-2027;

- The **National Recovery and Resilience Plan**, to be funded by the Next Generation EU fund with a 2.3 billion € public investment budget for related actions for the years 2021-2026.

Finally it is worth mentioning that the effects of the de-carbonization of the energy sector (the plan to eliminate lignite energy production in Greece by 2028) are being addressed through the **Master Plan for Just Transition of the lignite power producing areas in Greece**, which has 3 priorities: a) defence of employment, securing jobs and creating new ones; b) offsetting the socio-economic impacts of lignitization, maintaining and strengthening the social fabric; and c) ensuring the energy self-sufficiency of the transition areas and the country more broadly, while developing the local economy.

2. What is the issue?

Although on paper the nexus of legislative and planning initiatives at the national level seems to be addressing CE and all related issues, even to the point that the National Recovery and Resilience Plan is making an explicit and detailed reference to gender equality and addressing the issue of *"…unpaid care and domestic work…"* as well as promoting *"… effective and inclusive social policies …. targeted towards some of the most vulnerable population groups of the country, with the overarching aim of providing equal opportunities for all, irrespective of gender, ethnicity, sexual orientation, age, disability, and other characteristics…";* there are shortcomings that are endemic in the history of similar efforts in the country. These can be summarized as follows:

- A heavily top-down approach that does not take time and effort to engage in a meaningful and inclusive consultation with all relevant stakeholders and most importantly with the

most vulnerable social groups that are threaten by the changes that these plans may bring.

- A failure to take into account social injustices of the past (at the local or local level) while planning for the new *"green future."*

- Different regions within Greece might have varying capacities to transition to a CE. Disadvantaged regions might require additional support and resources to avoid exacerbating regional inequalities.

- A lack of dialogue and communication that has in many cases led to local communities' rejection of solutions like renewable energy production or recycling. Related to this is a lack of mechanisms that will anticipate impact, engage in dialogue and respond to changing social circumstances and perceptions.

- A difficulty to go from planning to implementation, especially regarding plans that are complex in their objectives and execution and require involvement of various parts of the society. As a result, more *"technical"* solutions are taking priority to the detriment of social innovation and inclusiveness.

In terms of gender justice (and despite the explicit reference in the National Recovery and Resilience Plan) the Circular Economy Action Plan fails to make any reference to the role of women or to any initiatives that can address gender inequalities.

In terms of labor inclusion, the Circular Economy Action Plan is found similarly lacking, being based on the highly contested assumption that *"green growth"* will automatically produce more and better jobs. However, as industries adapt to circular practices, some jobs in traditional linear economy sectors might be displaced. Ensuring that there are opportunities for reskilling, upskilling, and new job creation in CE sectors is crucial to prevent unemployment and social inequality.

The Greek national workshop tried bringing together a multi-stakeholder group in order to discuss the transition to the CE and how this can be done in a just, socially inclusive way in Greece. This was done using a future scenario exercise that led to a discussion of possible policy initiatives, the main ones being summarized below.

3. Key recommendations

To increase inclusiveness and social justice in the transition towards a just CE, the workshop felt that it is important to act towards three directions: access to knowledge and resources; rewarding environmentally safe practices and social innovation in business and society, while fighting greenwashing and upgrading the role of civil society and local action.

More specifically it was suggested:

- Ensuring that all relevant stakeholders, including vulnerable communities, are consulted and involved in the development and implementation of CE policies. Integration of marginalized groups in the public and private sectors with increased quotas as a future step which will ensure that marginalized groups, such as ethnic minorities, disabled individuals, and women, have fair and equal access to employment opportunities.

- Financial benefits for entrepreneurs who adapt incentives for sustainable/innovative practices can play a key role to encourage entrepreneurs to adopt sustainable practices, reduce their carbon footprint, and contribute to achieving climate goals. Encouraging the transition to a CE through incentives promotes resource efficiency, waste reduction, and the use of renewable energy sources.

- Supporting workers and communities affected by the circular economy transition to ensure a fair and inclusive outcome. This could include providing training, reskilling and upskilling opportunities, ensuring decent working conditions and social dialogue, promoting diversity and inclusion, and contributing to local development and social well-being.

- Supporting small businesses, local production, engagement of minorities and local market to ignite trust and opportunities for innovation and investment in circular solutions that create value from waste, regenerate natural systems and enhance social well-being. This could include providing financial incentives, technical assistance, regulatory frameworks and market access for circular businesses, especially small and medium enterprises and social enterprises.

- Empowering consumers and citizens to participate in the circular economy transition and benefit from its opportunities. This could include raising awareness, education and skills development, facilitating access to information and digital tools, and strengthening consumer rights and protection.
- Encouraging social and technological innovation such as green spaces within cities, sustainable public transportation and mobility sharing schemes. These innovations enhance quality of life, create jobs, and mitigate environmental disparities, aligning with circular principles of resource efficiency and social equity.

- Engaging in a dialogue that will ensure the concerns of socially marginalized groups are addressed through a national plan on climate change. Accountability measures should be established to ensure that promises are kept and how the input and feedback received from marginalized groups have influenced the final national climate plan should be clearly demonstrated.

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JUST2CE

A Just Transition to Circular Economy

A Better WEEE Management System - Urgent to Address in Campania Region

National Co-Creation Workshop

Campania region (Italy)

The JUST2CE project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101003491

JUST2CE
A Just Transition to Circular Economy

Policy Brief – Campania Region (Italy)

A Better WEEE Management System - Urgent to Address in Campania Region

Prof. Renato Passaro[4] **& Dr. Patrizia Ghisellini**[5]
Parthenope University

1. Scope of the problem and general overview

The huge increase of WEEE (Waste from Electrical and Electronic Equipment) is one of the most pressing issues that characterizes the current society which require urgent policy responses. WEEE have reached 57 million tonnes in 2021 and should grow to 75 million tonnes by 2030. If properly collected and processed in certified treatment plants they could provide with the opportunity to recover scarce materials and metals as well as generate job opportunities. Not to mention that EEE (Electrical and Electronic Equipment) repair and WEEE reuse or remanufacturing extend the service life of products and materials prolonging further their value as well as reducing the WEEE generation. The current UE formal WEEE management system is not effective. The UE formal system collects only 45.9% of generated WEEE, probably because the market mechanisms and logics that govern the WEEE system are not consistent with a system that should focus on environmental and social well-being. ***In Italy less than 40% of e-waste generated is collected***. In Southern Italy regions both collection and recycling rate of WEEE are lower than national average. ***Campania is the Italian region with the lowest collection per capita (3,42 kg) in 2022***. The social context of Campania region has been characterised by problems in urban solid waste management including a severe crisis from 1994 to 2012, the emergence of the *"land of fire"*

> **WEEE prevention and better management** are needed to tackle their continuous increase, to avoid environmental impact and retain most of their value as long as possible.

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phenomenon (still ongoing) and the effects on the health of local communities and natural environment. These events have caused a strong reduction in citizens' trust in public administrations (especially in peripheral areas) and a distrust of interventions on the waste management system. For these reasons the WEEE system in the Campania region is an emblematic case study to study and the lessons learned from this case study could be useful for the Italian and the EU WEEE system.

2. Workshop about the transition towards a just CE in the regional context of WEEE system

The transition to the CE in the regional WEEE system of Campania is slow and an acceleration of the implementation of its principles (reduce, reuse, repair, remanufacturing, recycle) is highly desirable to take advantage of the potential social and environmental benefits from the transition. The EU directives require that WEEE are collected in specific collection centers and treated in industrial certified plants. These latter assure the proper handling of WEEE, reducing risks to workers' health and to the environment as well as the illegal trade of e-waste. ***This is particularly important for Campania region that still suffers from an ineffective WEEE management system, the abandonment of waste in the environment as well as the infiltration of criminal organizations who have opposite interests than the well-being of local communities and regional society.*** These aspects are important for the JUST2CE Project and its reference framework of humility pillars (framing, vulnerability, distribution and learning) since they evidence a problem of distributional justice. The population of Campania Region cannot benefit of the social, environmental and

Panelists at the Workshop organised in the Campania region.

economic advantages of an effective WEEE management system compared to other Italian and European regions.

3. Policy Recommendations

A series of key recommendations that emerged from the workshop discussions are summarized below:

- **Improvement of low WEEE collection rates**

  This can be obtained by: a) improving WEEE recycling behavior of citizens leveraging communication campaigns; b) education programs in schools and for families associated with economic and non-economic incentives; c) cultural events and bottom-up initiatives that involve citizens on a motivational level and encourage the self-responsibility of local communities. These measures should be adopted in particular by local municipalities who have a closer relationship with citizens, but which should benefit from the support of National (Environment Ministry, National WEEE Coordination Centres, WEEE consortia) and Regional authorities (Campania Region Government), being well aware of the particular context of the waste management in the region.

- **Opening of certified treatment plants in Campania region**

  This measure would provide important benefits to the local communities in terms of new jobs and the reduction of environmental impacts (due the WEEE transport). Therefore, the regional authorities (mainly Campania Region Government) are the main recipients of this recommendation since it requires creating a conducive environment for entrepreneurial activities by means: a) rapid authorizations procedures for new plants; b) greater security/legality in the waste industry; c) financial supports. Further entrepreneurial support should be dedicated to CE related initiatives such as creation of circular start-ups, repair cafés, eco-design development.

- **Scaling up of other CE principles**

The European Commission should integrate the CE-related actors (involved in repair, reuse, reduce, remanufacturing strategies) in the EU formal WEEE system because it has the potential to prevent WEEE generation, retain most of their value for the longest possible time as well as avoiding the environmental and social justice concerns caused by the illegal trade of e-waste. This measure would better align the WEEE directive with the all the principles of the circular economy also underlined in the Circular Economy Action Plan (2020).

Life cycle assessment as a key concept in policy planning

The national and regional/municipal authorities should develop communication campaigns and strategies to foster the dissemination of the life cycle of WEEE to the consumer. The concept of life cycle of WEEE is relevant to raise the awareness of consumers, local municipalities and National WEEE Coordination Centre on the environmental and social impacts of the WEEE life cycle as well as of the value of WEEE recovery and increase their responsibility and involvement towards their actions and choices.

Monitoring data of WEEE collection

The collection of data about WEEE flows after they are conferred from the citizens to the municipal collection centers should be improved to understand critical phenomena such as cannibalization and the illegal trade of WEEE. This measure proposes to strengthen the role of the Agency for the Protection of the Environment of Campania Region (together with municipalities and National WEEE Coordination Centre) in collecting the data about WEEE collection and flows outside and inside the region.

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JUST2CE

A Just Transition to Circular Economy

A JUST TRANSITION TO CIRCULAR ECONOMY IN TARANTO AND ITALY'S INDUSTRIALLY CONTAMINATED SITES (ICSs)

National Co-Creation Workshop

Taranto (Italy)

The JUST2CE project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101003491

JUST2CE
A Just Transition to Circular Economy

Policy Brief – Taranto (Italy)

A JUST TRANSITION TO CIRCULAR ECONOMY IN TARANTO AND ITALY'S INDUSTRIALLY CONTAMINATED SITES (ICSs)

Dr. Stefania Barca[6], Dr. Ilaria Boniburini[7] & Dr. Emanuele Leonardi[8]

1. Introduction: What's the issue?

Industrially Contaminated Sites (in Italian: Siti di Interesse Nazionale, SIN) are areas in which, following industrial activities carried out in the past or in progress, a high concentration of contaminants is found in air, soil, water and the food chain, causing environmental and public health crises[9]. The area surrounding the (still active) ex-Ilva plant in Taranto, along with other ICSs such as Bagnoli's former Italsider site and Manfredonia's former ANIC site, has been included in Italy's SIN map.

The province of Taranto is a recipient of the EU-funded Just Transition Fund (JTF), having been classified as an **area most negatively impacted by the transition towards climate-neutrality**, due to its dependence on fossil fuels and greenhouse gas-intensive industrial processes.

The Sixth European international World Health Organization Ministerial Conference on Environment and Health, held in Ostrava in 2017, declared a commitment towards *"preventing and eliminating the adverse environmental and health effects, costs and*

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9 The current main reference directive, dictating the administrative and technical procedures for the remediation of ICS, is the Legislative Decree 152/2006. They are managed by MiTE (the Ministry for the Ecological Transition). Today, in Italy there are 42 ICSs and 17 Sites of Regional Interests and they include both marine and land areas. The latter counts about 170,000 hectares, which is the 0.57% of the Italian territory. For further details, please see Scaini et al (2023).

inequalities related to waste management and contaminated sites". From an environmental justice perspective, due to the prolonged and pervasive effects of industrial contaminants on human and nonhuman life on the local scale, ICSs fall into the category of *"sacrifice areas"*[10].

2. A just transition to ICSs: prospects and challenges

Based on the above, and on the outcomes of Italy's JUST2CE national workshop held in Naples on 14 April 2023, we conclude that **Just Transition in ICSs assumes specific meanings**, related to the need for recognizing and repairing serious environmental damage, public health crises, and loss of alternative opportunities due to their prolonged lock-ins to unsustainable industrial monocultures. It is important to stress that ICSs have proven industrial monoculture a wrong development strategy, insofar as these areas remain today in comparative disadvantage with respect to the regional and national context in most human and economic progress indicators. In these contexts, Just Transition must signify a process of liberation from path dependency, job blackmail, environmental degradation, de-valuation of local resources, and chronic deficiency of public goods and services.

Rather than something to be compensated for, as it is often assumed, **the transition out of carbon-intensive production is highly desirable and beneficial for ICSs**, which may see in it **their long-denied chance to proper compensation** for the service they have given to national economies over the long run, **reparation** of past damage, territorial **regeneration**, and **autonomous development**.

We consider that CE is the logic end point of such transition processes. For CE to be implemented in ICSs, however, **extraordinary efforts must be made at overcoming the following barriers**:

[10] See United Nations – General Assembly (2022). The right to a clean, healthy and sustainable environment: non-toxic environment". A/HRC/49/53. Retrieved from: https://undocs.org/Home/Mobile?FinalSymbol=A%2FHRC%2F49%2F53&Language=E&DeviceType=Desktop&LangRequested=False

- **Path dependency**: industrial monoculture and consequent jobs blackmailing, with the systematic sacrifice of alternative visions and opportunities (or else, the TINA culture);

- **Environmental disasters**: high levels of toxicity (asbestos, heavy metals, dioxin, POPs) for both human and nonhuman life; threat to biodiversity and environmental degradation. In other words, the first barrier to be eliminated are the polluting sources that make any circularity impracticable;

- **Public health disasters and lack of adequate care**: resulting in the violation of human rights to health and a safe environment, and the exhaustion of community energies;

- **Profit-oriented planning and policies**, which have caused inadequate access to healthcare, environmental services, education, research etc.;

- **Tendency to extra-ordinary administration of plants and/or brownfield areas (SIN)**, associated with the systematic disrespect of sanitary and environmental regulations, diminishing democratic control over the transition process, and loss of access to territory and control over changes in land use on the part of local communities – in short, dispossession and alienation of local communities from their own territories.

Removing these barriers is a necessary precondition to the development of those local resources and agents that can enable a transition to CE. Among these, grassroots community organizations have proven essential to enabling a culture of justice and the sense of worth for local populations, and their capacity for grassroots economic planning. In the case of Taranto, as well as those of Manfredonia and Bagnoli, they have given expression to alternative value systems and political priorities, centered on the sphere of reproduction, caring, and democracy rather than that of production, value added, and gross domestic product (GDP) growth. In short, **a Just Transition to CE can only originate from environmental justice and community-led participatory processes, including the**

knowledge, expertise, and visions of the affected population – both workers and residents[11].

3. Key policy recommendations: What should policy makers do?

We recommend that Italy's Ministry for Ecological Transition (MiTE), the *"Agenzia per la Coesione territoriale"*, which is in charge of managing the Just Transition Fund, and all the relevant regional and municipal authorities in SIN areas adopt an Environmental Justice approach, which implies:

- **Making sure that past damage is recognized and repaired**, healthy environmental conditions restored, adequate public services implemented, and equal opportunities established on the local scale. This necessitates the institution of a reparation scheme, or *"superfund"* for ICSs, designed to actively involve local communities and the local workforce in the identification of priorities and in the planning, implementation, and monitoring of actions.

- **Supporting bottom-up planning, designing, and monitoring** of JTF-related actions, providing local grassroots organizations with adequate resources and direct channels of communication with decision-making bodies. Such processes must be institutionally enabled via socially innovative planning techniques designed to foster equality (of voice), plurality (of visions), inclusivity, and justice.

- **Ensuring widespread access to knowledge** and to publicly funded research and innovation programs. Supporting participatory knowledge co-production processes, and commit to taking their results into consideration in future deliberations and in developing regulatory or legislative tools.

[11] Most Recently the report *"How to break down the barriers to transformation"* developed by WISE Europa, Impact Hub and EIT Climate-KIC pointed out that cooperation and social dialogue among all actors are the cornerstones of a successful just transition. For further details, please see Skubida, S., Sarna, K., Binarovà, B. & Glowacki. K. (2023).

In short, a just CE in ICSs (or sacrifice areas) can only be implemented after removing the enormous barriers deriving from their historical trajectories, i.e. after repairing environmental and public health damage, restoring the conditions for a healthy and autonomous development, and granting equal opportunities to the local population. **Reparation of environmental damage and access to adequate public services must be seen not as outcomes of the transition process, but as their prerequisites**. Before being able to produce any new added value (in renewable energy, blue economy, or else), ICSs territories and people have a right to healing – materially and symbolically – from the noxious effects of industrial monocultures. Such healing cannot be postponed as the foreseen endpoint of a transition process but must be seen as its necessary precondition and very essence.

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JUST2CE

A Just Transition to Circular Economy

Transitioning South Africa towards a just circular economy

National Co-Creation Workshop

South Africa

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JUST2CE
A Just Transition to Circular Economy

Policy Brief – South Africa

Transitioning South Africa towards a just circular economy

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African Circular Economy Network (ACEN)

1. Introduction

The Just Energy transition centers around South Africa's energy sector transformation during its journey from coal to cleaner energy sources. The CE term is nascent in policy discussions in South Africa, and first mentioned in 2019 by the Department of Science and Innovation[1]. The CE has since received increasing attention in both the private and public sectors. This policy brief aims to tease out key recommendation to enable a just CE transition in South Africa (Figure 1).

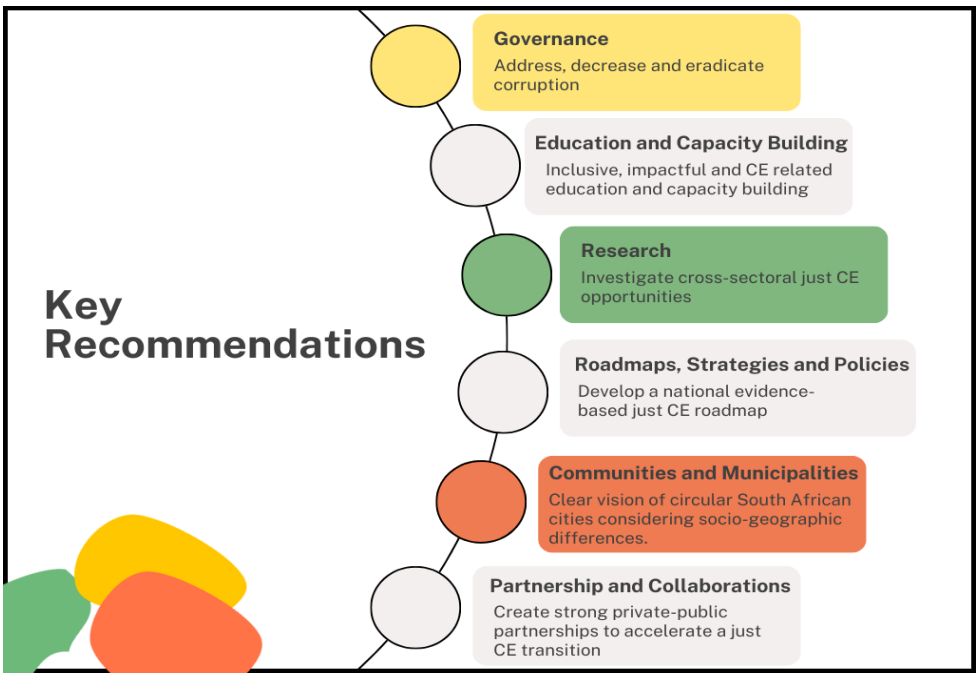

Figure 1 - Key recommendations to enable a just CE transition

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The CE is regenerative by design and based on 3 broad principles:

- Design out waste and pollution
- Keep materials at their highest utility
- Regenerate nature **and humans**

The development opportunities that can be enabled through a CE especially the just aspect has not been well investigated for South Africa, which should go beyond the simplified indicator of job creation.

The CE predominantly focuses on waste and material resources by the Global North and South Africa, and the social dimension is rather poorly understood and integrated into the concept. South Africa's **circularity is estimated at 7%** with a largely extractive economy, whereby raw materials are mined and exported, while depending on fossil fuels and a resource-intense agricultural sector[2]. Five sectors, namely mining, agriculture, manufacturing, mobility and human settlements as well as two cross-cutting sectors (water & energy) were identified as having the biggest potential to transition to a CE[3].

2. Transitioning towards a just CE: The social dimension of a CE

The country needs **fundamental transformation** to move away from systemic poverty, unemployment, food insecurity, inequality, crime, gender-based violence, permanent and disruptive load shedding and a looming water crisis. The CE holds the potential to address these issues if implemented in an inclusive manner, where the mistakes of a linear economy are not repeated. The development opportunities that can be enabled through a CE, especially the just aspect have not been well understood in South Africa, which should go **beyond the simplified indicator of job creation** and fulfil fundamental human needs. Through engagement with nearly 60 stakeholders in Cape Town and Johannesburg in 2023, it became clear that a just CE for South Africa has some key meanings of what it should achieve.

Moving towards thriving, cohesive, trusting and healthy communities, where people have an identity, take ownership and responsibility, feel safe, are actively engaged and have their fundamental human needs (subsistence, protection, affection, understanding, participation, recreation creation, identity and freedom) met. An enabling environment needs to be created where servant leaders are in place who eradicate corruption and serve South Africa and its people, moving from bureaucracy to a capable and agile state. Full agency needs to be restored to all South Africans, where societal trauma can be addressed. To enable a just CE the space for learning by doing, creating, adapting, re-doing and succeeding needs to be created, while the vision of a just CE for South Africa needs to be co-created. The hope is that South Africa can become leading in a just CE transition.

3. Key Recommendations

A just transition to a CE in South Africa requires a comprehensive and collaborative effort from all stakeholders. It also requires collaborative and inclusive leadership to foster co-development of power, agency and direction to lead to individual and collective transformation[5]. By implementing the recommended policies and actions outlined in this policy brief, South Africa can unlock the economic and environmental benefits of the CE while ensuring social equity, job creation, and sustainable development for its citizens. In total nine categories[15] were identified based on the goals and projects stakeholders proposed during the workshops and interviews. Only four high-level recommendations are included in this policy brief. An extensive list of recommendations can be found in the workshop report.

- **Developing a National Circular Economy Roadmap**

  The South African government should develop a comprehensive National Just Circular Economy Roadmap that outlines the country's vision, goals, and roadmap for transitioning to a just CE. Key aim of the roadmap would be to enable a CE for the country which also realises fundamental human needs for the people of South Africa. The roadmap should involve multi-stakeholder engagement, including government agencies, businesses, civil society organizations, and academia, to ensure a participatory and inclusive approach. The roadmap must build on ongoing initiatives such as the forthcoming Science, Technology and Innovation (STI) led cross-sectoral Circular Economy Roadmap, National Development Plan 2030, Operation Phakisa, Eco-Industrial Parks Programme, Circular Innovation South Africa and Circular South Africa.

- **Employment creation, education and skills development**

  Review and rethink the curriculum (NQF Level 1 to 10) to integrate just CE in all curricula including vocational training. New trainings and degrees need to be developed to capacitate future workforces that are geared towards a CE. Design skills development

[15] Governance; Education & Capacitation; Awareness & Engagement; Research; Roadmaps, Strategies & Policies; Economic Sectors & New Business Models; Communities & Municipalities; Partnerships & Collaborations and Standardisation & Accreditation

programs to support the transition of workers from traditional sectors to new CE sectors. Teachers need to be educated on critical and systems thinking. Prioritize investments in areas with high unemployment rates and promote entrepreneurship and small and medium-sized enterprises in CE sectors.

- **Research**

  Conduct large cross-sectored quantitative and qualitative study which identifies sectoral and cross sectorial CE interaction opportunities, based on a mapping exercise of ongoing initiatives and existing resources.

- **Governance**

  Corruption is a massive barrier to drive socio-economic development and the just CE transition in South Africa. The aim is to address, decrease, and as far as possible eradicate corruption. Collaborative governance and servant leadership, where leaders "focuses primarily on the growth and well-being of people and the communities"[4] is required for society to trust in the government.

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JUST2CE

A Just Transition to Circular Economy

Fostering a social justice approach in Circular Economy activities

National Co-Creation Workshop

Spain

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JUST2CE
A Just Transition to Circular Economy

Policy Brief – Spain

Fostering a social justice approach in Circular Economy activities

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1. Introduction

The recycling rate in Spain was 35% in 2019, far from the 50% target set by the European Commission for 2020, placing the country below the EU-27 average (48%) and far from the updated target to recycle 55% of municipal waste. In Spain, landfilling of waste in 2019 was 54%, a figure far from the EU target of no more than 10% by 2035[17]. In 2020, the Spanish Government approved the Spanish Circular Economy Strategy to reduce waste generation and improve resource efficiency.

According to the Catalan Waste Agency, in 2021, Catalonia has not managed to reduce waste generation, but it has achieved a collection rate of 46.6% and it is estimated that 40% of the waste generated will be reused. In Catalonia 46.6% of the total municipal waste generated in 2021 (1,878,000 tonnes) was collected selectively, which represents 3.1% more than in 2020. However, more than half of the municipal waste generated (53.4%) is still not collected separately and needs to be treated before final treatment (landfill or incineration with energy recovery)[18]. According to the public administration of the metropolitan area of Barcelona, 1.5 million tonnes of waste are generated in the metropolitan area, almost half a tonne per inhabitant per year. Nevertheless, the current levels of selective collection are insufficient to meet the targets set by the EU.

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[17] For further information, please visit the COTEC Foundation's Report (2021): https://cotec.es/observacion/economia-circular/f62c16db-5823-deb4-7986-a786e5c3401c

[18] For further information, please visit the Data Portal of the Catalan Waste Agency (2022): https://residus.gencat.cat/ca/consultes_i_tramits_-_nou/estadistiques/bi_residus_municipals/

The Catalan Government is committed to promoting the CE through various initiatives. For instance, the ***Strategy to promote the green and CE***; the ***Catalan eco-design strategy for a circular and eco-innovative economy***; and the ***Programme for the prevention and management of waste and resources in Catalonia*** (PRECAT20). The set of initiatives are grouped in a roadmap that includes the future priorities to be deployed by the regional government and the goals to be achieved in the future, and which has become one of the six strategic axes of the ***National Pact for Industry***. Moreover, the creation of the ***Catalonia Circular Observatory*** aims to make visible the efforts made by Catalonia in terms of green and CE and to disseminate the goals achieved. This will allow existing initiatives to be replicated and will facilitate the advancement of existing knowledge, fully integrating circularity into the Catalan economy. At the same time, the ***Catalonia Circular Hub*** has been developed as a space for dialogue for companies and institutions to foster knowledge-exchange and innovative solutions on CE among different sectors.

2. What's the issue at stake?

The concept of CE and the initiatives for its implementation in Spain and Catalonia are very focused on closing the loop of product's life cycle through the optimisation of production processes and waste management as well as on the development of new technologies and processes. Current paradigms focus CE models' implementation and policies on eco-design and materials performance. The aim of this practice is to reach the recycling targets set by the EU for 2035 and subsequent benchmark years. In the case of Catalonia and Barcelona, the initiatives and entities belonging to the CE sector are closely related to waste operators and activities to improve the eco-design of products. However, **these sectors do not formally integrate social justice aspects such as gender, global justice, governance issues, poverty or citizen participation**. In the same line, waste collection and management do not address geopolitical issues related to global value chains, the thermodynamic limitations of production processes or possible rebound effects. In general, the different administrations are focused on bottom-up implementation of measures

> Currently, the efforts of the different administrations are mostly concentrated on **reducing the amount of waste** that ends up in landfills and incinerators and on **increasing collection and recycling rates**.

in specific sectors of the different companies in the production value chain rather than addressing broader social objectives.

3. Key recommendations

- **Integrating informal workers in the waste management sector**

  According to the UAB researcher Julian Porras, interviewed as part of the research phase prior to the workshop, there are currently more than 5.000 workers in Barcelona who are not integrated into the formal cycle of CE, the majority of them being migrants from sub-Saharan and Northern Africa. These workers, who are often in an extremely vulnerable situation due to their irregular status in the country, spend long days collecting and managing bulky urban waste such as metals, electronic components or cardboard that sell to small legalised scrap yards, which channel it to the established recycling industry. These informal recyclers contribute to the CE of Barcelona -and Catalonia as a whole- without any support or social and labour benefits. In order to develop scenarios of just economic circularity, it is necessary to give value to the work carried out by informal waste collectors in cities and integrate them into the waste management sector. ***The Catalan Government, in collaboration with the Spanish Government, should carry out a statistical census of the number of people currently working informally in the waste collection sector, and regularise their work and efforts through public initiatives that foster employment while combat social exclusion.***

  Examples of good practices can be found in Barcelona, such as the successful case of Andròmines -a company that fosters social and labour inclusion on the CE sector-, as well as Fundació Formació i Treball and RobaAmiga, social entities that employs vulnerable groups in risk of exclusion to work on the second-hand textile market.

- **Definition of new indicators to measure social justice of CE**

  The need to improve the indicators used to monitor and evaluate CE activities and processes in Catalonia and Spain is crucial to advance towards the just transition.

Nowadays, the case of the waste management sector in Catalonia illustrates the major focus on resource and energy optimisation in production processes and reduction of waste generation, while aspects of social innovation have been very little addressed. In this sense, ***the Spanish and Catalan Government should establish cross-cutting monitoring systems that take into consideration aspects of social justice and include them into their National and Regional Circular Economy Action Plans.*** This measure would help improve the adoption of social innovation criteria among the different actors working in CE activities.

For instance, indicators that assess the level of gender balance in organisations, their level of social integration or the social and environmental impacts derived from the global value chain are key examples to consider when reformulating CE-related action plans.

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JUST2CE

A Just Transition to Circular Economy

Fostering a social justice approach in Circular Economy activities

National Co-Creation Workshop

United Kingdom

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JUST2CE
A Just Transition to Circular Economy

Policy Brief – United Kingdom

Empowering Community Repair

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1. Community Repair and the *Reyt Repair* case

In contrast to ***commercial repair*** activities, ***community repair*** sees volunteers provide a space to repair electrical items, furniture, and textiles in a local non-profit setting. Whilst quantifying the environmental benefits of repair activities is complex, reducing waste streams and primary resource extraction is recognised as a core element in the ***transition to a CE***.

Community repair has positive social impacts at the community level, representing a space for learning and skill sharing, a hub for community activity, and an outlet for people without work.

Reyt Repair[21] is a non-profit community repair shop embedded in the local community of Pitsmoor (Sheffield) in the United Kingdom (UK). It is a somewhat atypical example of community repair, open 5 days a week offering repair services for a small fee, and located within an area of relative deprivation. *Reyt Repair* is powered by volunteers and makes use of a building owned by the Local Governmental Authority, out of which it operates at a reduced rent. A community tool bank is also run out of the same space. One mission of *Reyt Repair* links to education and the provision of workshops where members of the public are able to attend and learn skills for home repair activities. Data was collected from volunteers and participants present at the national workshop, which took place as a *'repair open day'*, with the findings forming the basis for suggestions within this policy brief.

[19] Ben Purvis, Research Associate, Sheffield University Management School
[20] Tim Else, Research Associate, Sheffield University Management School
[21] For further information, please visit: https://reyt.repair/

Volunteers and participants at the *Rayt Repair* Workshop organised in Sheffield.

Volunteers, many of whom were out of work for a variety of reasons, strongly expressed benefits to their wellbeing of being part of a friendly and welcoming space that is providing meaningful services to the local community. The skills offered by volunteers allow consumers from deprived backgrounds to repair items that they cannot afford to replace. Issues around identity, such as gender and class, emerged during the workshop as areas that need consideration in ensuring a just future with community repair activities.

2. Challenges and barriers to repair in a just transition

Planned obsoletion, the reduction of size and fusing of individual components, as well as copyright laws, present increasing barriers to the repair of common household items. These trends are primarily driven by the profit motive of producers, to the detriment of those who are unable to afford replacement products, consequently fostering inequality in a circular transition.

The ***Right to Repair*** is a loose social movement, as well as sets of proposed legislation that would empower consumers and curb the design of disposable products. ***Other practical barriers to consumers repairing items include a lack of time, the cost of repair relative to replacing products, lack of repair knowledge and skills, access to materials and tools, and not being aware of where items can be repaired.*** Such barriers can vary based on the identities, demographics and facilities found in any given locality, where language barriers, inaccessibility, income and perception of gendered activities can foster unequal engagement with repair in the community, at odds with a just transition. Community repair initiatives like *Reyt Repair* offer many benefits to the local community, far beyond the purported environmental benefits of repair activities, such as increased education, social cohesion and wellbeing. Yet the success of *Reyt Repair* is underpinned by the support of Sheffield City

Council in offering a subsidised space, and the existing networks of the organisers for acquiring specialised equipment at low cost, presenting barriers for replication of this model.

3. Policy Recommendations

- Local authorities across the UK should ***offer financial subsidies*** and ***make physical space available*** to allow community repair activities to establish themselves and sustain operations. This would ensure fixed costs can be met, such as insurance and tools and materials, as well as keeping costs low and affordable for consumers.

- The UK Government should embed ***repair skills education*** into school syllabi and curricula to target young people. Local authorities can promote similar topics in their adult education offerings. There is also a need for ***broader skills retention*** within the UK, as technical and professional skills are increasingly offshored or lost.

- The UK national Government needs to work with manufacturing sector representatives, such as MAKE UK, to ***embed principles of the Right to Repair within production, tackling planned obsolescence and empowering consumers to repair items.*** Various suggestions for this exist, including financial incentives, changes to standards, and penalties.

Moreover, repair café networks and community repair networks should directly acknowledge issues of ***accessibility and identity in their guidelines*** and events.

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