

JUST2CE

A Just Transition to Circular Economy

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Atlas of Just Circular Economy practices



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 2. UNIVERSIDAD DE VIGO
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 13. AFRICAN CIRCULAR ECONOMY NETWORK
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PROJECT No. 101003491 – Short description of the whole project

JUST2CE will assess the current state of transition towards the circular economy in relevant economic sectors and analyse possible transition scenarios, as well as their outcomes and impacts. It will identify the key factors that can stimulate or hinder this transition. Natural resources are extracted and transformed into products, which are eventually discarded. As many natural resources are finite, it is important to keep materials in circulation for as long as possible. This makes the transition to circular economy more vital than ever but is a responsible, inclusive, and socially just transition to a circular economy possible or even desirable? What technical, political, and social factors can enable or hamper such transformation? The EU-funded JUST2CE project will answer these questions. It will explore the economic, societal, gender and policy implications of the circular economy paradigm. The project's findings will shed light on how to ensure democratic and participatory mechanisms when designing and managing such technology.

History Chart

| Version | Date | Implemented by |
|---------|------------|---|
| V2.0 | | |
| V1.1 | | |
| V1.0 | 29/09/2023 | Cephas Mandizvidza – Lead Author (SIRDC - Zimbabwe), Thokozani Dube – GIS Expert and Author (SIRDC - Zimbabwe) Sally-Anne Kasner – Cases reviewer (ACEN – South Africa) Katharina Gihring – Cases Reviewer (ACEN – South Africa) Stefania Barca – Final document reviewer (CES – Spain) |

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Executive summary

The aim of task 1.4 was to create a Global Atlas of Circular Economy (CE) practices and initiatives accessible via a Geographical Information System (GIS) that will run on a web service integrated with the website of the project. The uniqueness of the Atlas is that it showcases CE case studies that focus on the social justice dimension. The Atlas collects and visualises information about CE practices and initiatives aligned with the dimensions explored by JUST2CE. The Atlas has been populated with the contribution of all the consortium members. Further entries can be added during the duration of the project.

At the moment of processing the information collected from partners, we realized that the totality of cases were located in Africa and Europe. This reflects the geographical scope of the consortium and of the empirical research conducted throughout the project.

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1. Development of the JUST2CE Atlas

The map shows the global geographic distribution of CE practice cases. Case studies include CE practices from Ghana, Kenya, Italy, South Africa, Uganda and Zimbabwe. The cases are categorized according to the different economic sectors each with the corresponding descriptive information on circularity and social justice aspects.

The workflow was based on the following activities:

- Questionnaire design that included the important circularity and social justice aspects of concern.
- Training of participants within the JUST2CE project and external enumerators.
- On field data collection (primary sources) and internet (secondary sources).
- Data entry, review and selection of relevant cases that met the circularity and social justice specifications.
- Converting the entered data into an excel database. This included the process of geocoding cases that only had addresses as location information.
- Creation of the Global Atlas in “Google My Maps” by transferring the recorded information from the excel spreadsheet. The map cases were then categorised according to a sector.
- Embedding the Global Atlas onto the JUST2CE website

The JUST2CE Atlas will be updated during the entire duration of the project and will be online at least for 3 years after the end of the project.

2. The case study review process

In total 73 case studies were collected by reaching out to the different consortium members and the network of each partner. Firstly, cases were collected by the means of an online survey, which was later changed to a manual system when the online survey did not produce favourable results. The online survey recorded 117 cases and several were dropped because they were either irrelevant or did not meet the circularity and social justice aspects expected. Manual collection of the data was adopted by a means of a survey questionnaire (Annex 1) which has six questions and was designed mainly based on sector, circularity and social justice aspects.

The collected cases were reviewed internally based on the information provided. From the review, it became apparent that capturing the social elements of a circular business model was rather challenging. Thus, 17 case studies were disqualified while for 24 others, more information was requested from the authors. Case studies from the Global South also demonstrated that circular activities were rather narrowly focused on the waste sector, which does not draw the entire picture of circular activities on the African continent. Furthermore, most waste activities were often conducted by the informal sector under poor working conditions, which opens up the question how circular jobs should be defined. The review of cases revealed that health and safety needs to play a crucial role in creating decent circular jobs.

Some case studies were reviewed a second time after additional information was received. During the review process the Atlas was further developed by the consortium members to make it more user-friendly. At the end of the review process, 32 cases were selected for publishing on the web map and for embedding on the JUST2CE website - see attached spreadsheet of the published CE studies. More cases are still to be part of the JUST2CE Atlas and this depends on their relevance.

3. A snapshot of JUST2CE Atlas of CE practices – Europe and Africa

The atlas represents the geographic distribution of the selected CE practices and will be embedded onto the website. In the atlas, the cases are categorized according to the different CE practice sectors which are;

- Food and Waste management
- Plastics and waste management
- Critical raw materials and waste management
- Manufacturing and waste management
- Plastics and manufacturing
- Waste management
- Agriculture
- Fashion
- Housing
- Manufacturing
- Manufacturing and food
- Manufacturing and recycling
- Personal hygiene
- Plastics manufacturing and waste management
- Plastics and waste management
- Waste management and critical raw materials
- Water use and energy

The latest version of the Atlas is from 26/09/2023 and can be viewed [online¹](#). Upon opening the link to the Atlas, one should be able to view an interactive window as shown in Figure 1.

¹ The Atlas will be integrated in the JUST2CE webpage. A beta version can be accessed here: https://www.google.com/maps/d/u/0/viewer?mid=1hQ2r7MM0bY_AQVB5E52MWaZc6FYBibQ&ll=16.18649262483613%2C19.409256665000036&z=2

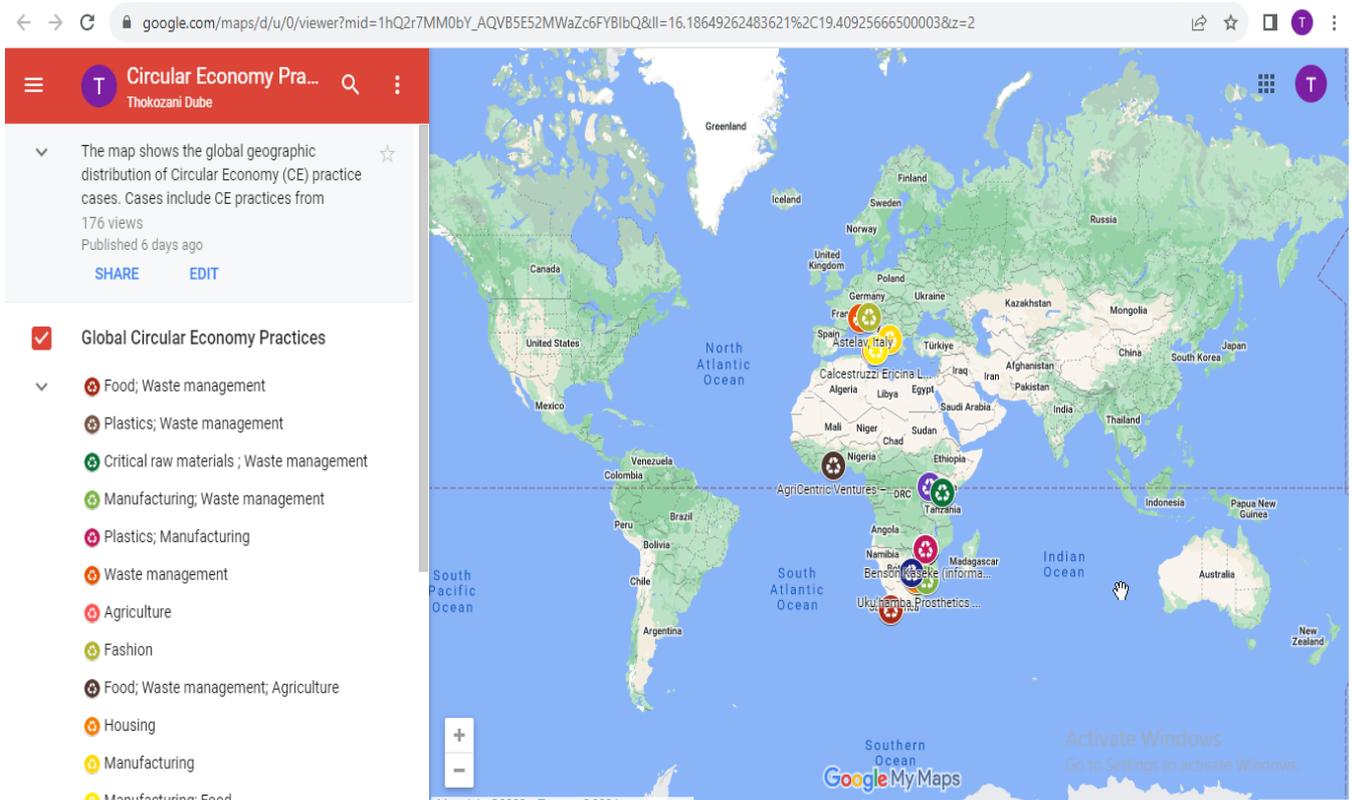


Figure 1 : Landing page of the JUST2CE Atlas

Clicking on any symbol on the map, results in displaying all of the information about the case as shown in Figure 2.

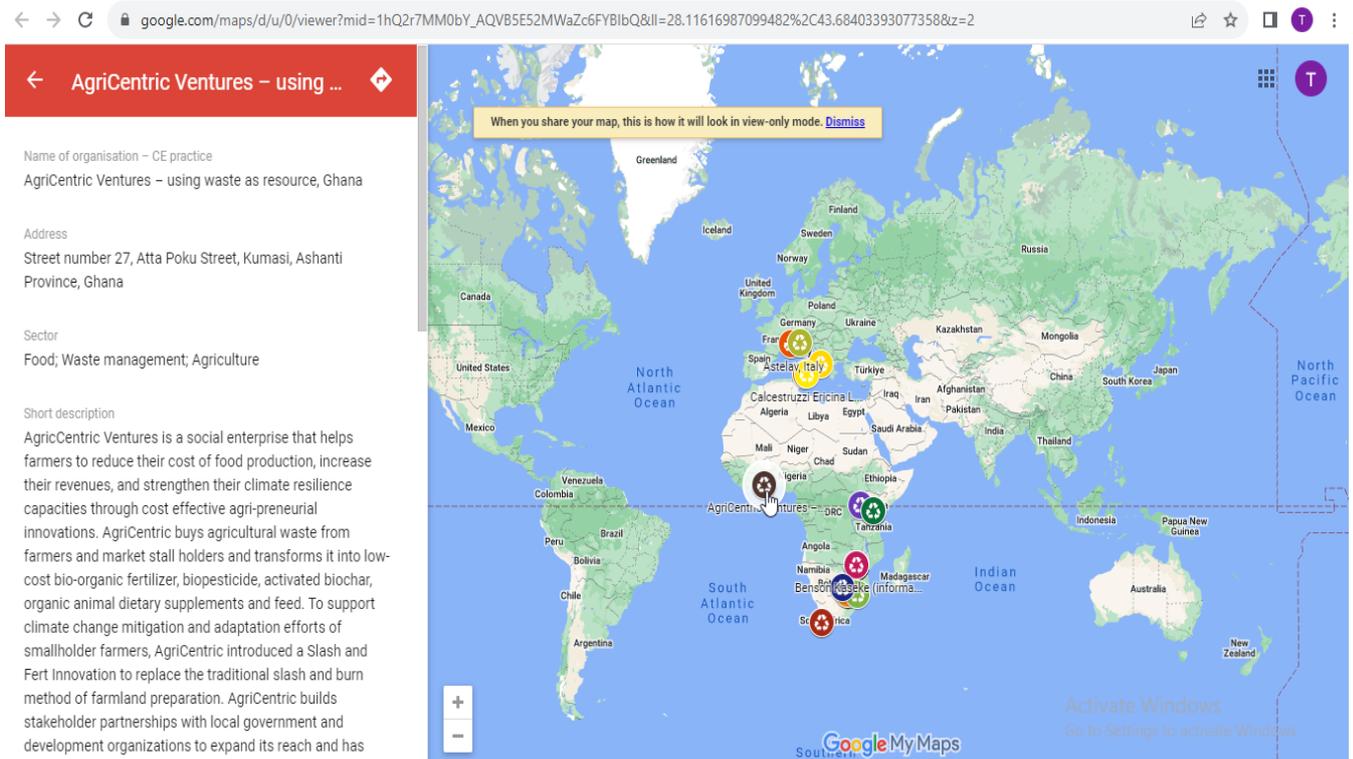


Figure 2 : Descriptive information of a selected case

On the map window, the legend can be expanded to show the names and respective countries of the cases that fall within a particular sector as shown in Figure 3.

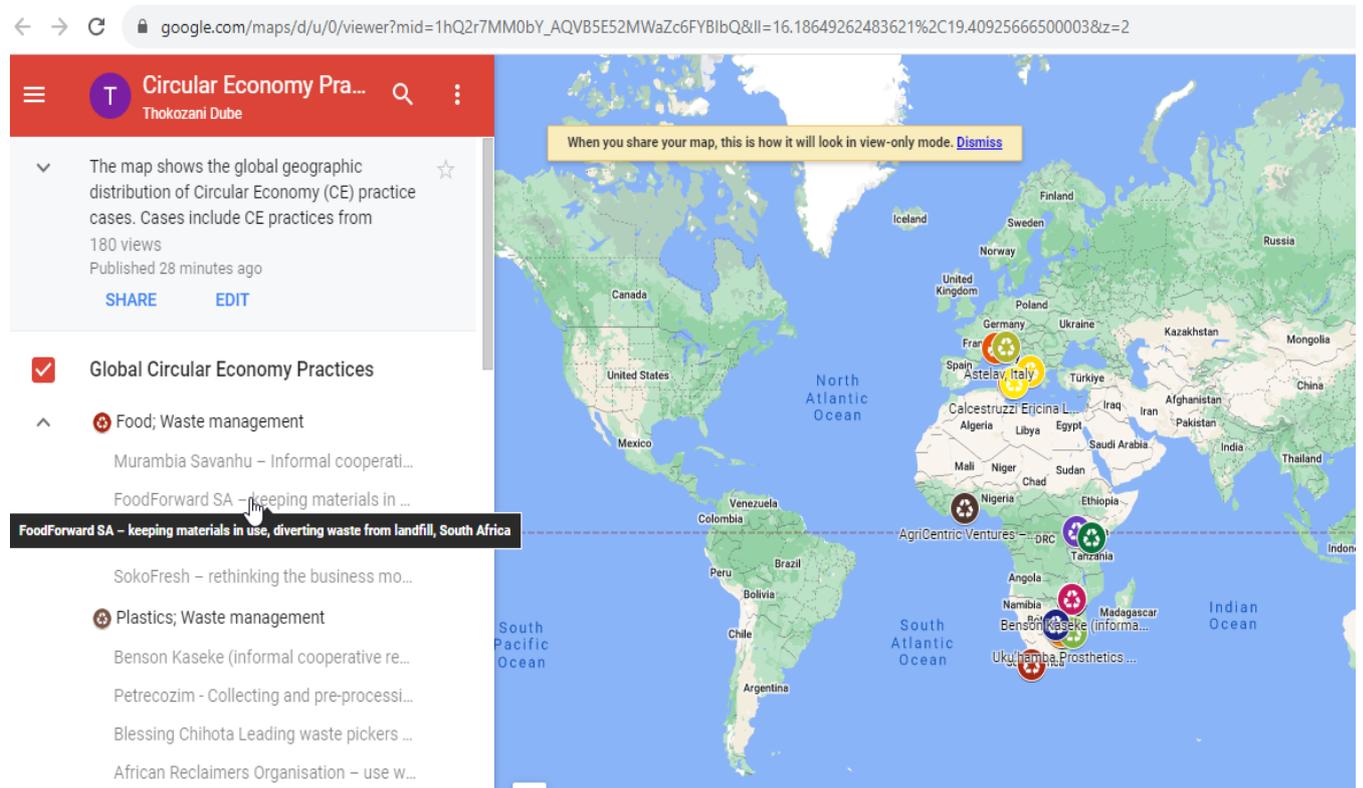


Figure 3 : Expanded legend showing the list of CE cases

The map window includes search and navigation tools which make the map interactive and enables the end user to easily locate any of the mapped cases. Selecting the search button on the top left corner launches an interactive window which allows one to search by name, classified sector as well as the country from a filtered list depending on the characters that have been typed (Figure 4).

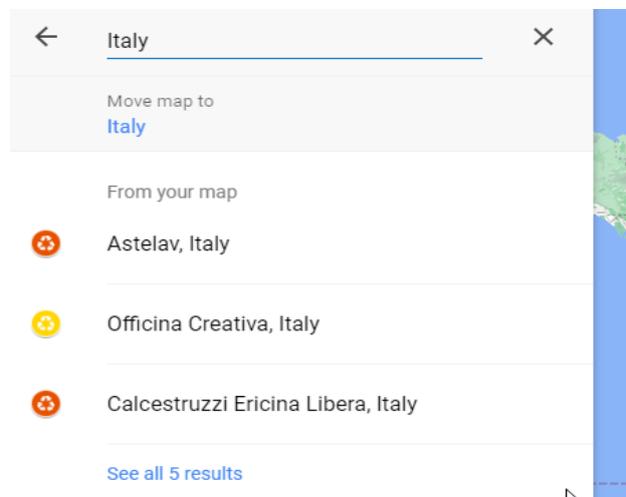


Figure 4 : Map Search tool demonstration e.g by country

Selecting a case for the search results zooms the map onto that particular case and all the information relating to the case is displayed as shown in Figure 5.

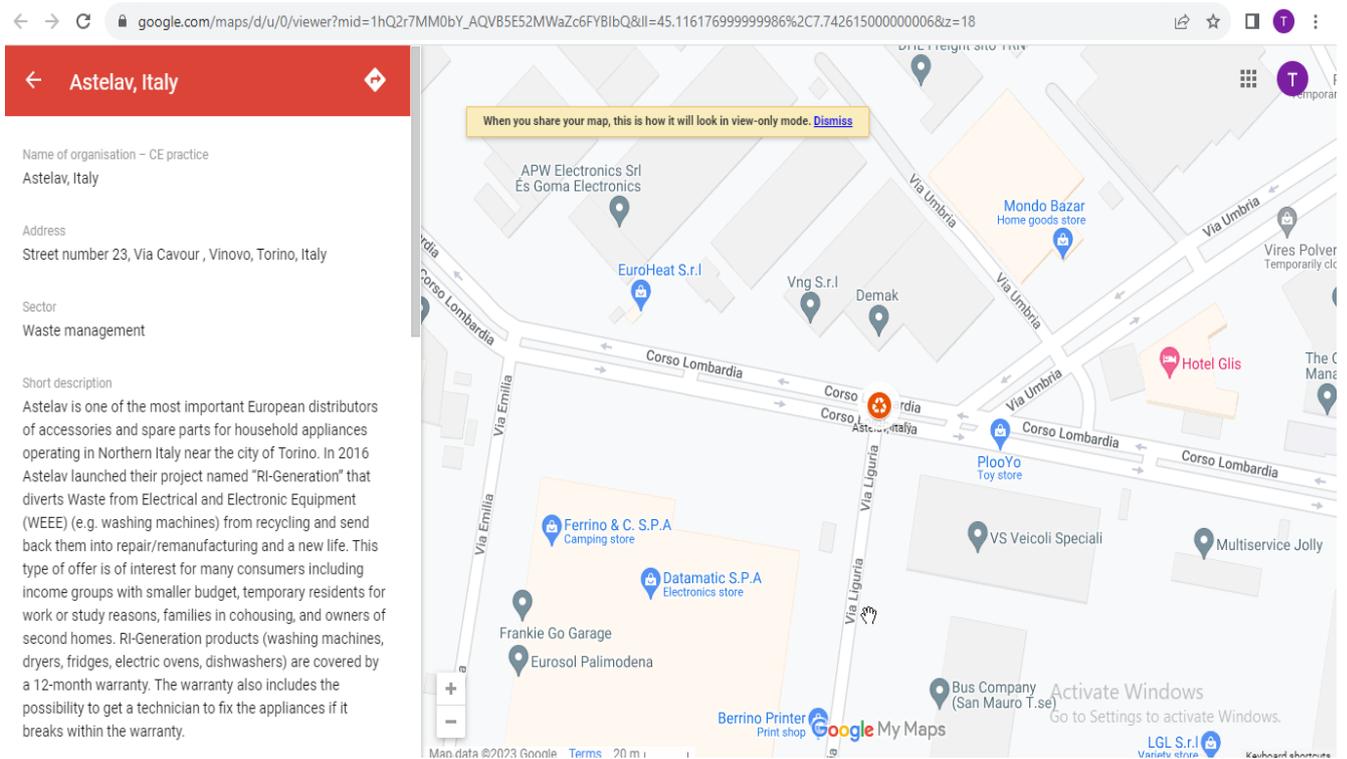


Figure 5 : Search tool results

Annex 1: Filled questionnaire – An example

Project Title: A JUST TRANSITION TO THE CIRCULAR ECONOMY (JUST2CE)

TOPIC: CE-SC5-25-2020: Understanding the transition to a circular economy and its implications on the environment, economy and society.

Project Summary: JUST2CE is based on the assumption that a critical evaluation of the Circular Economy (CE) paradigm, of its economic, societal, gender and policy implications, and of the outcomes of its implementation (which industrial sectors will benefit the most? Which stakeholders' groups can be classified as winners and which one as losers) 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 – e.g. extractive Vs productive economies; core-periphery and north-south relations – 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. To date, no studies have shed light on how such relations should be reconfigured to achieve circularity. This represents an urgent and major research gap that will be addressed by this project, which will therefore provide useful insights to policy-makers for evaluating the feasibility of the transition to the CE. JUST2CE aims at understanding, in critical and thoughtful way, under which conditions a responsible, inclusive and social just transition to a circular economy is possible and desirable, what technical, political and social factors can enable or hamper such transformation and how these aspects can contribute to the development of transitional policy measures. 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.

Task 1.4: Global Atlas of CE Practices - Time Frame Month 3 – Month 24

Aim – to create a Global Atlas of CE practices and initiatives accessible via a Geographical Information System (GIS) that will run on a web service integrated with the website of the project.

The atlas will be updated during the entire duration of the project and will be online at least for 3 years after the end of the project. The atlas will collect and visualise information about CE practices and initiatives aligned with the dimensions explored by JUST2CE. The Atlas will be populated with the contribution of all the consortium members.

| | | | | | | | | | | | | | | | | | | | |
|--|---|-------------------------------------|------------------------|--------------------------|----------|--------------------------|---------------|--------------------------|-----------|--------------------------|------|--------------------------|---------|--------------------------|--------|-------------------------------------|------------------|--------------------------|----------------------|
| <p>1. Name of organisation – CE practice</p> | <p>Ages Industrial Solutions (Pvt) Ltd – Buying aluminium cans and aluminium waste Mrs Mapfumo 0772201228, 242 772565 www.agesindustrial.co.zw , phillipa@agesindustrial.co.zw</p> | | | | | | | | | | | | | | | | | | |
| <p>2. Location</p> | <p>Please give GIS coordinates, if available; if not please indicate country and/or region and/or district and/or municipality and/or address in the following formats</p> <p>GIS coordinates : Latitude - 17°51'45.369"S Longitude - 31°03'03.540"S</p> <p>Or</p> <p>Address: Street number -12 Street name - Shepperton Road City / Town - Harare Province - Harare Country - Zimbabwe</p> | | | | | | | | | | | | | | | | | | |
| <p>3. Sector</p> | <p>Suggested responses for ticking (<i>Tick ✓ all that apply</i>)</p> <table border="1"> <tr> <td><input checked="" type="checkbox"/></td> <td>Critical raw materials</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Plastics</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Manufacturing</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Water use</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Food</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Housing</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Energy</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Waste management</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Other (Specify).....</td> </tr> </table> | <input checked="" type="checkbox"/> | Critical raw materials | <input type="checkbox"/> | Plastics | <input type="checkbox"/> | Manufacturing | <input type="checkbox"/> | Water use | <input type="checkbox"/> | Food | <input type="checkbox"/> | Housing | <input type="checkbox"/> | Energy | <input checked="" type="checkbox"/> | Waste management | <input type="checkbox"/> | Other (Specify)..... |
| <input checked="" type="checkbox"/> | Critical raw materials | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Plastics | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Manufacturing | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Water use | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Food | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Housing | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Energy | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | Waste management | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Other (Specify)..... | | | | | | | | | | | | | | | | | | |
| <p>4. Short description (10 lines max)</p> | | | | | | | | | | | | | | | | | | | |

The company started to buy aluminium and aluminium cans in 2021. They get the cans from several suppliers that range from individuals and big companies like Pepsi (through a contracted Pepsi waste agent). Supplies are also from several towns, which are far from Harare – capital city. Most of the individuals who bring them the aluminium cans are women and these are the highest numbers in terms of their clientele base. The company pays USD 0.80c / Kg for all the material below 500kgs and USD 0.90c / Kg for material above 500kgs. They also provide free transport for all bulk material – above 500kgs. Currently, their market for the aluminium cans after bailing is the Republic of South Africa, which buys at 22 / 23 rands per Kg, which is around USD 1.50/kg. The company is however exploring other markets outside Africa, like Hong Kong in China. They revealed that they are facing competition from some illegal exporters, which are taking the material from some of their potential suppliers and finding smuggling to the RSA.

| | |
|---|--|
| 5. What are the main circularity aspects of the case? | <p>Explanation of “Circularity aspects” – general definition: A circular economy favours activities that preserve value in the form of energy, labour and materials. This means designing for durability, reuse, remanufacturing, and recycling to keep products, components, and materials circulating in the economy.</p> <p>https://archive.ellenmacarthurfoundation.org/explore/the-circular-economy-in-detail</p> |
|---|--|

Suggested responses for ticking (Tick all that apply)

| | |
|-------------------------------------|--|
| <input type="checkbox"/> | Designing for durability |
| <input type="checkbox"/> | Reuse |
| <input type="checkbox"/> | Remanufacturing |
| <input type="checkbox"/> | Recycling |
| <input checked="" type="checkbox"/> | Environmental sustainability |
| <input type="checkbox"/> | Adoption of certification schemes and/or Life Cycle Assessment |
| <input checked="" type="checkbox"/> | Other (Specify) – Recycling value chain |

Further explanation of the circularity aspects of the case and or of the ticked responses (6 lines max)

The company is feeding significantly into the recycling value chain. They are also playing a critical role in bringing foreign currency to the nation by exporting the materials to RSA. The company is also playing an important role in removing the aluminium cans from the environment by buying the waste from the agents who collect them from the waste pickers and sorters and directly from the waste pickers and sorters.

| | |
|--|--|
| 6. What are the main social justice aspects of the case? | <p>Explanation of “Social justice” – general definition : It is defined as “distribution of wealth, opportunities, rights, representation etc within a society, or across different areas” – needs to be an integral part of the circular economy if the concept is to retain its relevance over the long-term and ultimately contribute to more sustainable outcomes</p> <p><i>Cases must try to highlight the JUST (racial, gender, class, decolonial etc.) aspects of the case studies</i></p> |
|--|--|

| | |
|--|--|
| | <p><i>The principles of circular economy have to be aligned with important topics of social justice such as fighting poverty, sharing knowledge with less developed countries, equal rights and so on. https://www.isonomia.co.uk/social-justice-the-circular-economys-missing-link/</i></p> |
| <p>Examples of social justice aspects (Tick <input checked="" type="checkbox"/> all that apply)</p> | |
| <input type="checkbox"/> | Poverty and income inequalities are being addressed by paying workers above the minimum wage and/or eliminating the gender wage gap |
| <input type="checkbox"/> | "Dirty/high risk jobs" are being replaced by "clean and decent jobs" |
| <input type="checkbox"/> | Labour rights and/or workers' control are being implemented and expanded |
| <input checked="" type="checkbox"/> | Employment opportunities for informal waste workers |
| <input type="checkbox"/> | Employment opportunities for disadvantaged youth / immigrants |
| <input checked="" type="checkbox"/> | Direct benefit to those at the bottom of the value chain (waste pickers, sorters etc) |
| <input type="checkbox"/> | Affordability of the refurbished products, whilst serving the same intended purpose |
| <input type="checkbox"/> | Racial inequalities are being addressed (e.g. no export of toxic waste; sharing knowledge with less developed countries) |
| <input checked="" type="checkbox"/> | Gender inequalities are being reduced (e.g. inclusion of all genders in terms of opportunities and leadership) |
| <input type="checkbox"/> | Disabled people are actively involved and/or earning income |
| <input checked="" type="checkbox"/> | Other marginalized social groups are directly benefiting (e.g. migrants, refugees, ethnic minorities, transgender persons) |
| <input type="checkbox"/> | Geographical inequalities (e.g. North/South, centers/peripheries) in the distribution of costs and benefits are being reduced |
| <input type="checkbox"/> | Other (Specify)..... |
| <p>Further explanation of the social justice aspects of the case and or of the ticked responses(6 lines max)</p> | |
| <p>Informal waste pickers and sorters are benefiting from directly selling the aluminium cans to the buying company. The company does not require any formalities in buying the waste and so intermediaries have no chance. There is no discrimination in terms of gender in buying the waste.</p> | |
| 7. Source(s) | Primary |
| 8. Author (first name, last name, pronouns, affiliation) | <p>Cephas Mandizvidza SIRDC/ZNCPC - JUST2CE Project officer cmandizvidza@sirdc.ac.zw cephasm57@gmail.com</p> |