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CIRCULAR BENCHMARK TOOL FOR EUROPEAN REGIONS

CBT PROTOTYPE WITH EXPERIENCES FROM REGIONS AND FURTHER DEVELOPMENTS

Introduction

The Circular Benchmark Tool (CBT) prototype was co-developed in 2020 and 2021 thanks to the support of the European Regional Development Fund (ERDF), multiple regions, and the other partners of the REPLACE project. The purpose was to create an online tool able to facilitate and accelerate European Regions in their transition towards a circular economy.

The CBT is a tool developed by and for regions. Multiple sessions took place between the REPLACE partners to decide on the concept of the tool, indicators, questions, and valuation of the answers.

These sessions were meant to obtain a semi-quantitative measurement tool that would be user-friendly, directly influenced by the regions, and with results easy to benchmark with other regions/cities. The tool was tested by the Replace partners to verify its functionality and to create feedback for its improvement. Among these regions, there was Friesland (the Netherlands), Lodzkie (Poland), Centro (Portugal), Nord Est (Romania), Crete (Greece), and the metropolitan region of Hamburg (Germany); as shown in [Figure 1](#).

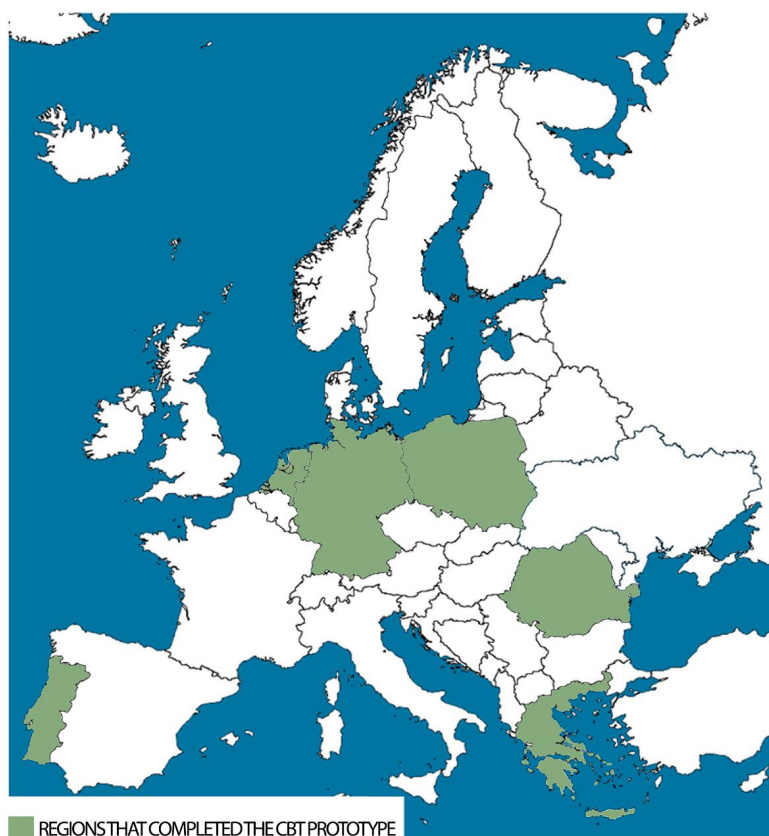


Figure 1. Countries where regions completed the CBT proof of concept.

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The deliverables resulting from the CBT prototype were retrieved in the form of an Excel proof of concept, which included the explanation of the indicators ([Table 1](#)), the measurement scores ([Table 2](#)), list of questions and answers ([Table 3](#)), and the results performed by the region ([Table 4](#)) with related spider-charts ([Figure 2](#) & [Figure 3](#)).

Explanation of the indicators

Circular Procurement	The extent to which you engage public and private suppliers to increase sourcing based on circular economy principles (e.g. green public procurement, ecological procurement, enforce private procurement).
Regional Funding	The extent to which you (financially) fund and/or support regional circular activities in order to transition to a circular economy.
Human Capital	The extent to which you develop and deploy circular knowledge and skills to contribute to transition agendas (e.g. awareness, education, jobs).
Circular Value Chains	The extent to which your regional innovation functions are geared towards designing materials/products/business models along circular economy principles that results in Circular Value Chains.
Circular Legislation	The extent to which your circular principles are formally approved plus formulated in regional laws and regulations and adhered to.
Good Governance	The extent to which you lead by example and motivate the society as a whole (e.g. private, public) for the transition towards a circular economy.
Overarching Circular Policy Framework	The extent to which the region presents a set of interrelated initiatives and policies to establish a strong and coherent circular framework that will ensure a smooth transition to a global circular economy across all relevant stakeholders.

[Table 1](#). CBT indicators listed and explained.





Measurement scores / Maturity levels

	Measurement Scores	Explanation	Example/ reference
1	Mapping	There is an overview of clear objectives	Green Public Procurement procedures.
2	Planning	There is a clear action plan to achieve objectives	Implementation of sub-milestones per year for the private and public sector to reach 100% Circular Procurement in 2050.
3	Doing	Activities are performed	Focus on both the public and private sector means combining existing efforts such as procedures for Green Public Procurements and ambitions to educate/motivate/ enforce the private sector.
4	Checking & Acting	Results are monitored and improvements are made	Periodical assessments in and across-regions.
5	Leading by example	Best practice in and across regions	Reference: EU action plan for Circular Economy: 100% Circular Procurement in 2050 (100% Green Public Procurement in 2025) as implemented by.

Table 2. Measurement scores listed and explained.

Circular Procurement - Mapping Measurement - Question 1

Question	Answer	If no, tick this box if you intend to complete this in the near future	If possible, include a link to documents
Do you have an overview of the existence of public and formal commitments to foster Circular Procurement within the region?	Yes No Partly		

Table 3. Example of a question present in the CBT prototype.

The answer 'partly' does not give any point, it is meant to differentiate the answers. In the example above, the answer 'partly' can be given if the overview to foster circular procurement is present for certain activities but not for others.



Final results (Centro, Portugal)

Results Centro (Portugal)	Direct	Indirect
1. Circular Procurement	Mapping	3
2. Regional Funding	Mapping	2
3. Human Capital	Mapping	2
4. Circular Value Chains	Mapping	1
5. Circular Legislation	Mapping	1
6. Good Governance	Mapping	1
7. Overarching Circular Policy	Mapping	1

Table 4. Example of a regional score (example of Centro, Portugal)

As shown in Table 4, there are two kinds of results:

- Direct result: The valuation criteria where for the first time 'no' is provided as an answer within an indicator.
- Indirect (average) result: The total amount of 'yes' within an indicator as a whole (despite in which valuation criteria).

Results can be viewed in the form of a spider chart, to have a clear overview of the scores performed and to enhance the benchmarking experience with other regions (Figure 2 & Figure 3).

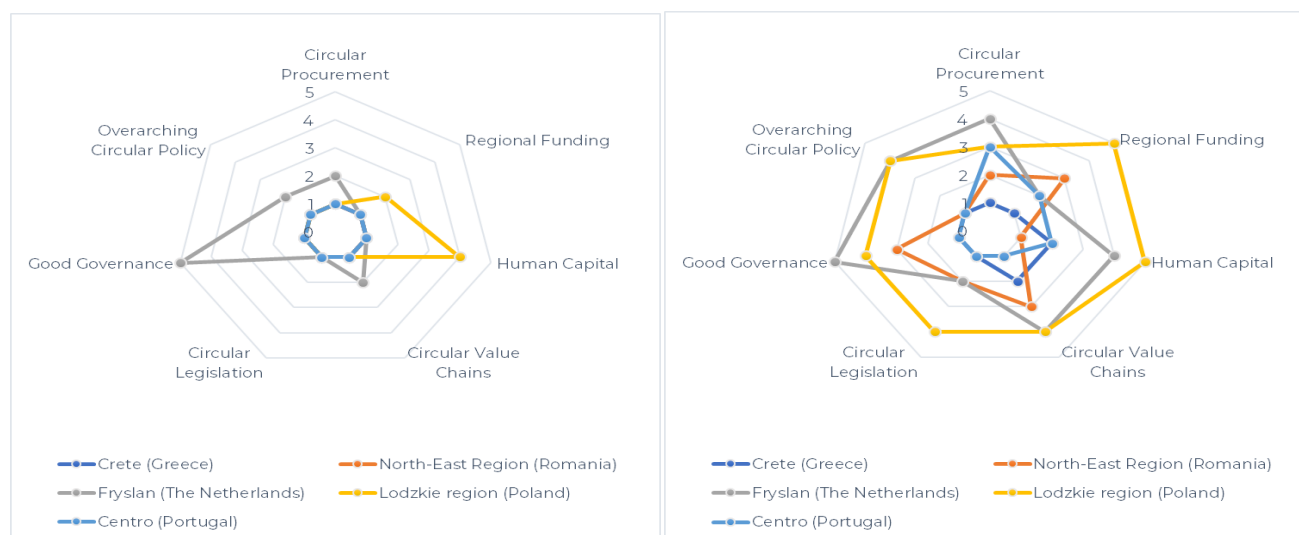


Figure 2 & Figure 3. Spider chart of direct and indirect results with benchmarking.



Quotes from regions

Here below we report some quotes from the regions, whose feedback was essential for the development of the final version of the tool:

- *'We gladly received the results of the Benchmark Tool. It is a great job, thoroughly investigated and I really enjoyed your report. It has a deep scientific approach focusing always "to the point", while the results provide valuable information for each participant.'*
Yannis Charitakis, Crete, Greece.
- *'Completing the tool with regional stakeholders gave us valuable insights on further accelerating the transition to a circular economy. Plus, it provides state of art information on circular policy information to be taken.'*
Sander Bos, Friesland, the Netherlands.
- *'This is really an interesting and useful assessment tool. It is very well thought out with a very ambitious take on how to promote a circular economy in regions.'*
Carlos Silveira, Centro, Portugal.
- *'I found it really helpful and inspiring! It brought us a great idea of where to improve and which pathways to follow!'*
Mirko Kruse, Hamburg, Germany.

Circular Benchmark Tool - Final version

The validating process performed with the proof of concept allowed the creation of a better and final version of the CBT. In the final version, the indicators became six to simplify the assessment and remove overlaps (Figure 4):

- Circular Procurement
- Access to Funding
- Circular Society
- Value Chain Activation
- Good Governance
- Integrated Policy Framework

The ambition of the CBT is to involve 50 European regions within 2023 to enhance the benchmarking experience plus cross-regional networking and knowledge exchange.

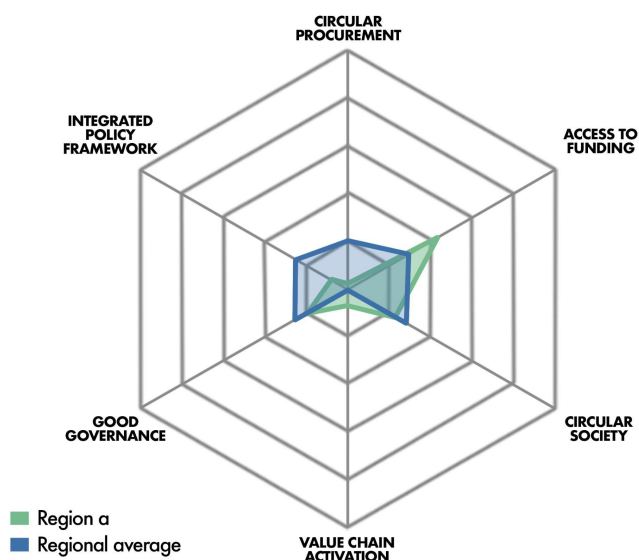


Figure 4. Spider chart of the final CBT





The final version is now an available online tool with updated statements to be answered (not questions anymore) by regions. The available answers changed as well, now besides the options 'yes', 'no', and 'partly' there is also the option 'future intention' which is not a separate section anymore. Furthermore, progress made in the assessment can be saved at any time if there is the need to gather information or consult other regional experts, and then it is possible to continue from the same point it was stopped (Figure 5).

Figure 5. Screenshot of the new CBT assessment

Essential is the methodology through which the final CBT has been developed. The fieldwork and desktop research before, together with the further updates, monitoring, and improving processes carried out together with the Replace partners were essential steps to arrive at this final version, which methodology represents a key.

As Circular Economy evolves constantly, this framework needs to be applied periodically to keep the CBT valid and reliable (see Figure 6).

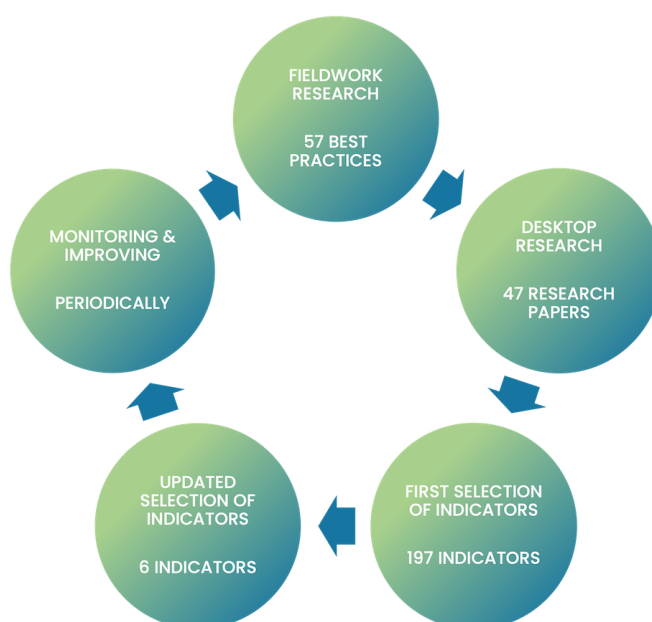


Figure 6. Methodology framework of the CBT

