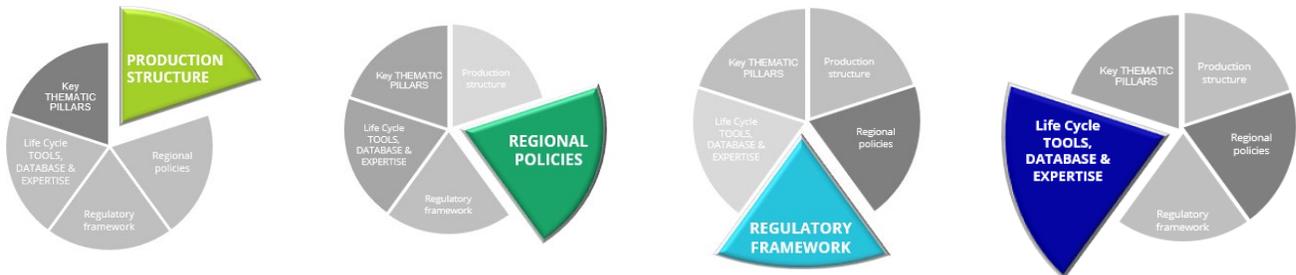


Project No. PGI05889

LCA4REGIONS - Improved Environment and Resource Efficiency through use of Life Cycle Instruments for Implementation of regional policies of the European Union

Title:

BENCHMARK REGIONAL ANALYSIS COMPARISON OF THE 7 REGIONAL ANALYSES: RESULTS



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Author: ACR+

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PURPOSE

The aim of this document is to set a common project baseline about the life cycle approach, , highlighting **opportunities and challenges** for achieving the project goals, and to allow the partners to proactively pursue them. This work aims to **cross-reference the most relevant data** from the regional analyses carried out by each of the seven regions, identifying the main **positive** and **negative starting points**.

The cross-analysis led to additional criteria and guidelines that may **stimulate the transfer opportunities of Good Practices**. The benchmarking is meant to figure out what reasonable expectations to set out and which are the barriers to take into consideration in order to meet them.

Furthermore, the attached Power Point document, including slides and notes, represents a **full starting-point database** enclosing all the relevant information contained in the regional analysis, useful for consultation useful throughout the entire duration of the project.

METHODOLOGY

The analysis has been carried out according to the following procedure:

1. Reading and scanning of the information provided by partners in the 7 regional analysis
2. Collection of data from the body of regional analysis and key points of the final swot analysis
3. Elaboration of 7 integrated regional SWOT analysis according to the following structure:
 - Production structure;
 - Regional policies;
 - Regulatory framework;
 - Life cycle approach: database and expertise; level of knowledge & awareness among actors; Life Cycle toolbox (Management & Assessment tools)
4. Grouping and cross-data of the 7 SWOTs elements
5. Analysis of commonalities and PROJECT SWOT processing: gathering of evidence of primary weaknesses, threats, strengths and opportunities.
6. General trends: interpretation of results and observations with respect to the project SWOT.

LCA4REGIONS SWOT ANALYSIS

The conclusions of the analyses led to a final project swot that encompasses the most relevant points highlighted by several regions, in terms of strengths, weaknesses, opportunities, and threats.

STRENGTHS



Figure 1 – Trends observed in terms of strengths in the SWOT analysis elaborated by the partners. The ratios visualized in the graph represent the common points observed in the panel, composed by 7 regional analysis.

For what concerns the Production structure and general characteristics of the country, there are some aspects in common emerging:

- The presence of **research institutions and universities** of technology with LCA related education available shows the asset of theory on LC and capability of the project to take advantage from the academic and research education and promote LC tools and methods throughout these channels. This is an important capability for the Training and Capacity Building Pillar.

- 4 regions on 7 have a wide range of **natural resources** available that can represent the field where regions can act to preserve these resources and improve their management. This means that natural resources can represent a strategic driver for the regions to promote the implementation of LC methodologies.
- The majority of the regions have a strong **industrial sector**, LC could have a potential in it. The regions could guide the application of LC methods as a multi-objective improvement of processes, concerning process design and optimization. The integration of LC methodology in the context of industrial ecology (IE) for environmental considerations should be spread by the regions in their key industrial sectors, mobilizing the local stakeholders around this objective.
- The regions show an active participation in **circular economy projects**. Some of them have resource-efficiency plans already implemented – Satakunta, *business as usual* – or in general Sustainable Development plans.
- At least 3 regions claim to have the **economic capacity for investments**, the issue seem to be how to allocate funding on LC;
- 3 regions out of 7 have the **own legislative power**, while CIMBAL has anyway the power to influence legislations. This means that there is enough potential for the project to influence policy makers and inspire future action plans.
- within the panel there are two particular **PP strategies** already considering LC methods in Satakunta and Slovenia; most of the regions is anyway committed somehow to **green procurement** from a regulatory framework point of view; this could mean that there is room for strategies in the Public Procurement pillar. Smart sustainable development strategies at national level are mentioned from the majority of the regions.
- 3 regions out of 7 claim to already own at regional level a quite developed **LC methodologies theory, qualified personnel research and experts**.
- Several regions mention the **high interest and awareness among actors**, that could be translated in strategic promotion of the project.

WEAKNESSES

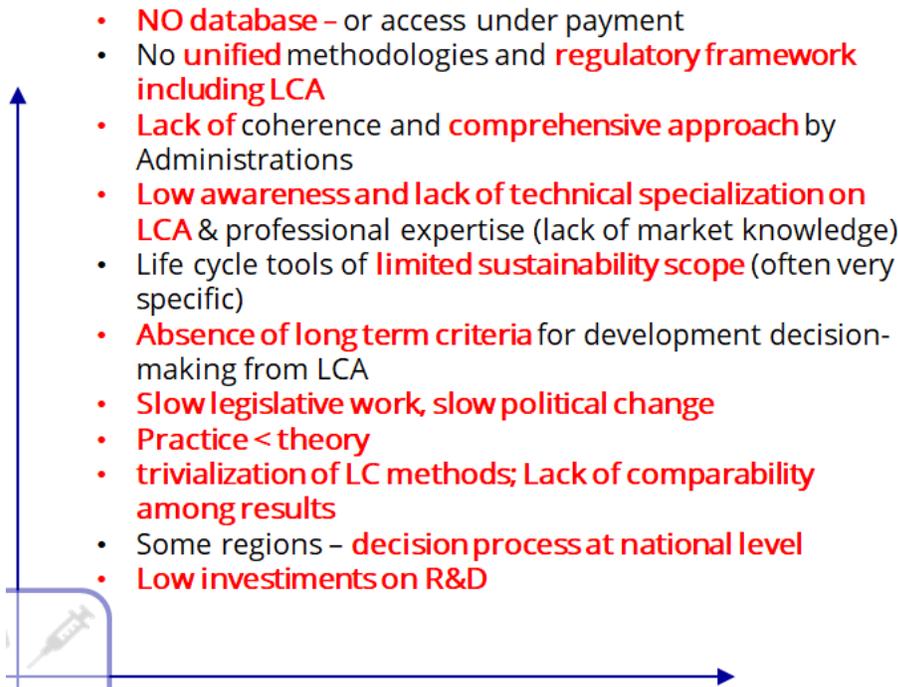
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- **NO database** – or access under payment
 - No **unified** methodologies and **regulatory framework including LCA**
 - **Lack of coherence and comprehensive approach** by Administrations
 - **Low awareness and lack of technical specialization on LCA** & professional expertise (lack of market knowledge)
 - Life cycle tools of **limited sustainability scope** (often very specific)
 - **Absence of long term criteria** for development decision-making from LCA
 - **Slow legislative work, slow political change**
 - **Practice < theory**
 - **trivialization of LC methods; Lack of comparability among results**
 - Some regions – **decision process at national level**
 - **Low investments on R&D**

Figure 2 - Trends observed in terms of weaknesses in the SWOT analysis elaborated by the partners.

- The **availability of data** seem to be a general issue: the consortium laments extreme difficulties to access to database of already present LC practices, when present they are **not comprehensive**, there is a general dispersion of info that make difficult the understating of the situation; it is then complicated to determine a solid and consistent starting point on regional analysis concerning practices. In some cases the application of LC by companies is considered **private information**.
- In general there is **absence of a regulatory framework** that foresees the use of LCA in a general manner, there is the need for clearer and unified methodologies that define the limits and criteria of application of LC; Another point underlined is the **lack of a comprehensive approach by administrations**: the application of LC methods is still a concept that needs to be spread in a more consistent and wide manner.
- Despite the high availability of theory on LC at academic and research level, the regions noticed very **low awareness in companies and administration**, and especially a **lack of technical specialization on LCA**; this means that professionals who really handle the concrete application of LC in the market is still too low to represent a driver for change.

- When **LC methods** exist in the regions they are **very specific and limited to the assessment of particular processes**: there is a strong need for a broader and comprehensive scope in the application of the LC THINKING;
- On this line, another problem seem to be the **absence of long term criteria** for development, decision making concerning the integration of LC in programmes and processes should be based on criteria that ensure long-term and constant results.
- A problem underlined by several regions is the **slowness of the bureaucratic processes**; this element constitutes one of the most significant weakness of LCA4Regions project. Intervene in the political change, especially for those partners who are not regional authorities, could represent a very high barrier; taking action is not immediate, but we can plant as many seeds as possible.
- As underlined before, there are “theoretical” resources that are not put into practice.
- The absence of information and all these barriers often led to **trivialization of LC methods**; the effort and the huge amount of investments and actions needed often let organisations and administrations think that the sacrifice is not worth it, so LC is seen as not necessary.
- The lack of comparability of results is a factor connected to the absence of a unified database, the need for structured and comparable information and LC applications is one of the most important factors between the weaknesses of the project.
- The regions that don't have the decision-making power are dependent on national legislation, so they have less power of action that could represent a limit for the implementation of the action plan.
- Low investment on Research and development is something that could directly affect the application of LC.

OPPORTUNITIES

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- **Data collection and database developments**
 - **EU/National policies/ major EU political trends**
 - Favoring the application of LC through **subsidies or deduction**
 - **Investment potential** (ex. incentives/EU funds for companies for training activities)
 - **Cooperation academics-industries-> Transfer of theory in the economic sector, strategic partnerships**
 - **Strengthening awareness**
 - **Openness to changes**
 - **High interest in circular economy**
 - **Broader application of LC tools and methods**
 - **Mobilization of local authorities**
 - **New qualified personnel**

Figure 3 - Trends observed in terms of opportunities in the SWOT analysis elaborated by the partners.

- Seen that data collection seem to be a problem identified by many regions, this project have the possibility to **prompt the creation of databases**.
- **National and EU trends** are seen as opportunities both because they positively affect people's thinking and attitude and because regions will soon be required to change in respect to these major changes in favor to environment and resource efficiency.
- Especially for the regions that have a strong power of influence there is the opportunity to favor **LC using the means of subsidies and deductions** for companies and organizations to encourage the development and application of LC criteria in their processes.
- A huge challenge is the application of LC theory, as already seen in the weaknesses; an opportunity could then be the **cooperation of academics and the industrial sector in strategic specific partnerships** that could drive the change and encourage companies to invest.
- Seen the low awareness about the benefits and the different applications of LC, this project has the responsibility to build bridges to **make decision makers, institutions and organizations aware of the LC potential**.

- All regions mentioned a general interest in circular economy and many of them declared the **propensity to change**. There is a general trend towards environmental issues awareness and concern. As seen already in the weaknesses, this project has the possibility to expand the concept of LC thinking, fighting against the perception of LC as single tools, and **promoting a broader application** of it.
- The **mobilization of local authorities throughout local channels** is fundamental to get successful practical outcomes.
- The presence of **universities and courses on LC** and circular economy concepts is a **huge potential for the future**; it could fill in the gap between theory and practice, creating new expertise.

THREATS

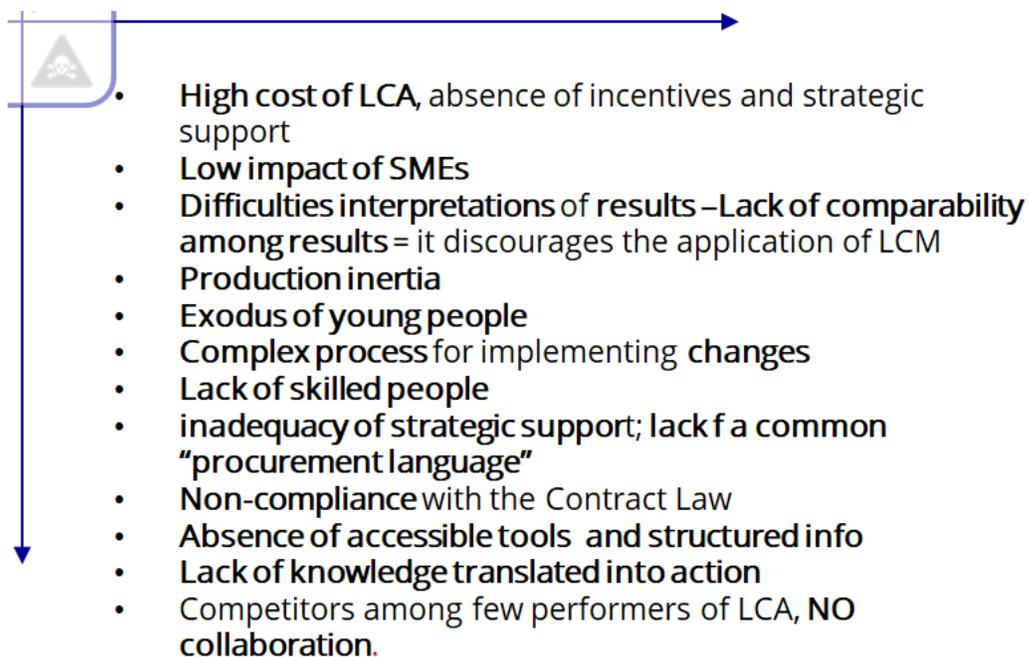


Figure 4 - Trends observed in terms of threats in the SWOT analysis elaborated by the partners.

- The most significant threat on which all regions agree is the **high cost of LC tools**; this perception make stakeholders give up before trying. The responsibility of LCA4Regions is to change this perception leveraging on long term results and environmental and social benefits; providing strategic support and working on **monetary and knowledge-based incentives** is vital.

- The regions' scenario at project level is a general presence of **SMEs**. This could represent an **advantage for stimulating local economies**, but it has been seen mainly as a threat because they often have **low economic capacity and low impact**.
- An element that could threaten the project is the **lack of comparability of results and** the related difficulties in their **interpretation**.
- **Overcoming production inertia** is a huge threat that a lot of regions remarked; this is basically the inner and most important factor against which LCA4Regions is meant to fight: influencing and changing the overall business as usual attitude. **Communication is fundamental** to spread the importance of applying LC. **R&D** has a strong role in managing and favoring the introduction of innovative process to overcome it.

STRATEGIC REMARKS

1. COVID-19: an opportunity?

The benchmark shows some evidences in terms of strengths and weaknesses and there is the room for some **transferability opportunities** from region to region.

One of the most important results in terms of threats identified is the **political inertia**: slow political changes in processes seem too hard to transform. The current situation created by the pandemic could be interpreted as the way forward; it is clear that a lot of production schemas will be forced to convert in order to jump-start the regions GDPs and recover socio-economic indicators in the after-crisis times.

How to make this re-start sustainable?

For LCA4Regions this represent a challenge that could become an opportunity in order to make **Life Cycle systems protagonists and drivers of this historical recovery phase**.

2. High cost of LCA: A MATTER OF PERSPECTIVE?

Another important observation emerged from the analysis is the **perceived high cost of life cycle tools and methodologies**;

Besides reinforcing the argument of fiscal incentives to promote LC methods, the project should emphasis means to wipe-out this threat. Through its stakeholder network, especially at local level, the communication of the project must focus on the cost/benefits ratio in order to enhance the efficacy of LC instruments and the long-term return and benefits resulting from the application of LC methods;

Making clear the reason why over the cost could be key to make stakeholders understand that what they can pay today will lead to less externalities impacts;

CONCLUSIONS

The common elements emerged from the SWOT can be considered as additional **criteria to take into consideration when selecting Good Practices**; strengths, opportunities could represent a **source of inspirations** to evaluate GPs, as well as weaknesses and threats can be addressed as **priorities** in this process.

In order to analyse transferability opportunities, a good practice must meet the above suggested conditions. This means that a good practice that exploit the strengths and the potential of the project and is able overcome weaknesses and threats will be more likely to be successfully implemented.

This benchmark is to be considered as a starting point to guide the future **transferability opportunities** between regions and strategic decisions to reinforce the impact of the resonance of LCA4Regions.