



CICERONE

Coordination and Support Action (CSA)

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 820707

Start date : 2018-11-01 Duration : 24 Months
<http://cicerone-h2020.eu>



Strategic design of the platform

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CICERONE - Contract Number: 820707

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Document title	Strategic design of the platform
Author(s)	Mrs. Anne-christine RITSCHKOFF, Maria AKERMAN (VTT)
Number of pages	22
Document type	Deliverable
Work Package	WP3
Document number	D3.1
Issued by	VTT
Date of completion	2021-03-02 13:24:26
Dissemination level	Public

Summary

The CICERONE project brings together programme owners, research organisations and other stakeholders to create a platform for efficient Circular Economy programming. The CICERONE platform aims to be a long-lasting tool for EU-level, national and regional circular economy policymakers and programme owners to cooperate, initiate and follow-up joint actions that speed up the transition to circular economy. This report defines the strategic design of the platform (Task 3.1.) that takes into account users' needs and expected added value compared to the existed platforms. The goal of the strategic design of the CICERONE platform was to outline two complementary elements, which are essential for the ability of the platform to reach its goals: the value proposition and the strategic function of the platform. The strategic design of the CICERONE platform was conducted with multi-method approach, which included following phases: 1) collection of background data with targeted surveys & literature reviews (as part of WP4), 2) review of existing platforms to identify the gaps in existing platforms and 3) three stakeholder workshops designed according to Value Proposition Design Methodology of L&I consulting professionals to define the CICERONE value proposition and guidelines for the functional model of the platform. Based on the identification of a) the needs and challenges of the potential users (national, regional and EU level POs) and stakeholders of the platform and b) gaps in existing sustainability and CE related platforms in addressing these needs, the report defines the following value proposition for the CICERONE platform: CICERONE platform enables the interface between users needs and existing resources and knowledge to help national and regional programme owners deliver R&I activities for promoting CE transition with the support of tailor-made services including: - systemic thinking to tackle CE in collaboration across sectors and regions with systems innovation, - orchestration and supporting collaboration for joint programming (multi-level, cross-regional), - policy recommendations and advocacy through the community management, - new tools and competence development & capacity building To deliver the value proposition, the platform will offer four types of services: Joint programming, Policy influence, Training and capacity building and Knowledge sharing.

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SUMMARY

The CICERONE project brings together programme owners, research organisations and other stakeholders to create a platform for efficient Circular Economy programming. The CICERONE platform aims to be a long-lasting tool for EU-level, national and regional circular economy policymakers and programme owners to cooperate, initiate and follow-up joint actions that speed up the transition to circular economy.

This report defines the strategic design of the platform (Task 3.1.) that takes into account users' needs and expected added value compared to the existed platforms. The goal of the strategic design of the CICERONE platform was to outline two complementary elements, which are essential for the ability of the platform to reach its goals: the value proposition and the strategic function of the platform.

Based on the identification of a) the needs and challenges of the potential users (national, regional and EU level POs) and stakeholders of the platform and b) gaps in existing sustainability and CE related platforms in addressing these needs, the report defines the following value proposition for the CICERONE platform:

CICERONE platform enables the interface between users' needs and existing resources and knowledge to help national and regional programme owners to jointly deliver R&D&I activities for promoting CE transition with the support of tailor-made services including:

- systemic thinking to tackle CE in collaboration across sectors and regions with systems innovation,
- orchestration and supporting collaboration for joint programming (multi-level, cross-regional),
- policy recommendations and advocacy through the community management,
- new tools and competence development & capacity building

To deliver the value proposition, the platform offers four types of services: The core service is Joint programming of R&D&I and funding programmes. In addition, according to the results of service development programme held in Berlin in November 2019 the following three services should also be considered: Training and capacity building, Knowledge sharing and Policy influence. Task 3.3 elaborates further these services and their business models (presented in deliverable 3.3).

The European member states and regions are in a very different phases in the transition towards circular economy. The national and regional needs, targets and ways to operate are various, which make the landscape even more fragmented. This fragmentation and differences in national priorities create barriers to the adoption of the platform and should be acknowledge in the design of its governance model and services. To ensure the adaptation of the joint, cross-European circular economy R&D&I goals, the commitment of the national and regional POs is a necessity. To define the guidelines for the functional model of the CICERONE platform, this report introduces key success factors of existing sustainability related R&D&I platforms based on the benchmark report D4.2 and platform review. Furthermore, it compares three different platform types (service-based, actor-driven, platform of platforms) in terms of their ability to provide a demand-based and actor-driven platform to promote the co-ordination and synchronisation of national and regional CE R&D&I activities towards impactful European CE research. As a conclusion, the report suggests that actor-driven platform is the most suitable platform format for CICERONE. This type of platform is fundamentally dependent of the commitment of forerunner POs and their ability to engage national and regional representatives across Europe to jointly develop shared R&D&I goals and practices for their implementation. However, the presented platform types are not completely mutually exclusive and elements from actor-driven and service-driven platforms can be also combined if it enables the most feasible model for the platform operation. These models however require the existence of well-funded and capable service provider.

KEYWORDS

Circular economy, platform design, value proposition, functional model of the platform, services

1 INTRODUCTION

The CICERONE platform aims to be a long-lasting tool for EU-level, national and regional circular economy policymakers and programme owners to cooperate, initiate and follow-up joint actions that speed up the transition to circular economy. Programme Owners (POs) that are involved as project partners, or via stakeholder networks, drive the priority setting and the operations of the platform.

Target-oriented cooperation and joint initiatives on circular economy provide efficient tool for European programme owners to accelerate and enhance the circular economy transition. According to the previous surveys conducted in other CICERONE work packages (Smits 2019, Rizos 2019), the main challenges and barriers that hinder the uptake of circular economy good practices and new solutions lie in the scarcity and fragmentation of different resources (funding, knowledge and human) and lack of implementation synergies across different regions and fields of action. Furthermore, follow-up and knowledge sharing of the implications of the taken actions is insufficient.

Following from the above-mentioned organisational failures, a strategic coordination of the EU-level, national and regional R&D programmes on circular economy is needed. The CICERONE platform addresses these challenges and forms a base for circular economy decision makers and programme owners to create and implement a common strategic research and innovation agenda (SRIA). It enables the creation of joint initiatives and funding possibilities, tracking the progress made in current EU and national programmes on circular economy, knowledge sharing and capability building needed in the circular economy transition.

This report defines the strategic design of the platform that takes into account users' (e.g. programme owners, national and local authorities) needs and expected added value compared to the existing platforms. The strategic frame of the platform outlines the operational design of the platform and potential services and service models the platform provides for its users. This report does not include a deep analysis of the potential governance or financial models of the platform, as they will be presented in deliverable reports D3.3 and 3.4. The report defines an overall value proposition for the CICERONE platform by explaining the adoption drivers and factors through which the platform brings overwhelming added value to its users.

1.1 Objectives of strategic design of the platform

The CICERONE platform provides an efficient and inclusive mechanism to foster the common identification, definition, prioritizing and funding of CE R&D&I across EU (EU, national and regional levels). Furthermore, it provides a system to steer and follow-up the impact of the activities taken. The special focus is on the regional POs and POs from those EU member states, which have less developed circular economy policies. This focus differentiates the CICERONE platform from the existing circular economy platforms.

The goal of the strategic design of CICERONE platform is to outline two complementary elements, which are essential for the ability of the platform to reach its goals: the value proposition and the strategic function of the platform.

The **value proposition** of the platform identifies the adoption drivers that help the platform users and other stakeholders to overcome the challenges in circular economy transition. It positions the CICERONE platform among the existing platforms and clarifies its uniqueness and added value. In designing the **strategic function of the CICERONE platform**, the specific objective was to determine its role and importance by identifying the gaps and inefficiencies in the existing platforms. The strategic

design of the CICERONE platform frames the potential services and other activities that are offered by the platform to its users and other stakeholders.

Key factors of a viable platform: the definition of the strategic frame of the CICERONE platform was based on a process of scrutinizing elements that are vital for a viable platform (Hogel 2015).

The most essential element for a viable platform is its “**raison d’être**”, i.e. whom the platform serves, what kind of added value it provides to its users and owners, and what are the unique success factors that differentiate the platform from other platforms alike. It is crucial to identify what are the specific needs of the users and to create a system how these needs will be addressed in a solution-oriented way. The engagement and acceptance of the platform from the user side is obligatory and the users need to feel a sense of ownership of the platform activities.

The **added value** of the platform is produced by the services and activities that the platform offers to its users. It is essential that the services (e.g. joint programming, knowledge sharing, training and policy influencing) address the exact needs of the users. Furthermore, the service and activity models define the uniqueness of the platform and determine how it differentiates from the existing platforms. The added value potential of the platform is the major factor that influences the degree of commitment of the users.

Stable **financial sustainability** is obligatory requirement for a viable platform. The financial sustainability can be achieved in different ways. A feasible business model and realistic understanding of the potential funding sources are utterly important for the successful platform. However, the user commitment and acceptance of the platform and its activities enable financial sustainability and have a crucial role in selecting the business model.

Efficient and functional governance secures the smooth operation and performance that bring added value for the platform users. The selection of the governance model is highly dependent on the goals and tasks of the platform. The governance model ensures the accessibility and usability of the platform by providing adequate processes and tools

This report focuses on the first two in the above listed elements whereas the detailed financial and governance models are/will be presented in deliverable reports D3.2 (Rizos et al., 2019), D3.3 (Business model options and financial plan for the platform), and D3.4 (Governance model and statutes for the platform).

1.2 Methodology for defining the strategic frame

The strategic design of the CICERONE platform was conducted with multi-method approach combining collection of background data through literature reviews and targeted surveys with the co-creation of value proposition and platform services during internal and external workshops within 2019 (three workshops) and 2020. Furthermore, the potential barriers of the suggested platform design and its potential functioning in facilitating joint programming were elaborated through focused PO interviews. These applied methods are described in detail in the appendix 1.

2 STRATEGIC DESIGN OF THE CICERONE PLATFORM

2.1 User needs and challenges

The strategic design the CICERONE platform started with identification of potential users and stakeholders. A careful investigation of the needs of the national and regional POs and decision makers was carried out to advocate CE transition in Europe through research efficiently.

The needs were investigated by a survey in the Spring 2019 (Smits, 2019). In the collected background data, the programme owners indicated several issues that need to be addressed to more efficiently boost the CE transition in Europe. These include:

- 1) The lack of nationally defined system on the circular economy development criteria for the verification and follow-up of expected outcome and impact of the taken actions.
- 2) Need for new policies, which support the regional development to adapt the circular economy principles.
- 3) Changes in the public procurement processes and increased capability of the regional authorities to uptake the new developments in the circular economy.
- 4) Sharing good practices and means to raise the public awareness on circular economy and provide alternative behaviour patterns.



Figure 1. Diverse stakeholder expectations behind the value proposition design.

The knowledge and information that was extracted from the surveys was further processed during an internal workshop in May 2019 to identify the specific customer needs of CICERONE platform stakeholders including e.g. national and regional project owners, companies, research community, investors and NGOs . The needs and experienced gains and pains varied between stakeholder representatives (see figure 1 as an example of workshop results but following core **adoption drivers could be identified:**

- Current fragmented and scarce European, national and regional resources to develop and implement the circular economy actions
- Lack of cross-European strategic coordination in national and regional level
- Need for efficient tracking systems for the European circular economy

Furthermore, based on the background data and workshop results, the following customer needs and challenges to be addressed by the CICERONE platform, services and innovation tools were defined.

IDENTIFIED CUSTOMER NEEDS AND CHALLENGES

- Deliver CE programs with the most impact possible
- Aligned strategies, metrics and KPIs
- Consolidation of information around public CE program for R&D&I
- Lack of information and capacity building for CE

2.2 Value added of CICERONE to existing CE related platforms

To guarantee the value added of the CICERONE platform and to avoid overlapping functions was conducted by a thorough review of selected existing platforms dealing with circular economy issues.

As a background for this work, we utilised the CICERONE benchmark study of governance and financing models of European Clusters and Platforms (Rizos et al. 2019)., conducted as part of Task 3.2. This benchmarking focused on not only CE platforms but also more broadly on sustainability oriented initiatives and offers information about various success factors behind 16 selected networks. Furthermore, valuable insight for the general rationales and functioning models of European circular economy platforms was offered by the recent study of European Circular Economy Networks conducted by INEC & OREE in 2020 (Major CE networks... 2020).

According to INEC & OREE study, different types of organisations, networks and entities aiming to connect actors focusing particularly on advancing circular economy on national level have started to emerge increasingly in Europe since 2015. In addition to national initiatives, the regional level CE networks and activities are currently developing strongly (EESC 2019). The national level CE networks studied by INEC & OREE differ in terms of scope and mode of organising the activities but share the goals of fostering the dissemination of CE in society, connecting stakeholders for this purpose, accelerating transition towards CE and making CE desirable. The study provides an in-depth view on 28 networks, which have important potential to impact on national policy making in different member states. Despite the increasing number of networks promoting circular economy in different European countries, the report also indicates that there are several countries without networks, which particularly dedicate to CE transition, including countries such as Croatia, Malta, Cyprus, Latvia, Spain, Greece and Germany (Major CE networks... 2020, p. 13).

The variety of initiatives and activities around Europe together with the finding that different countries have different CE priorities and varying amount of resources to respond to the challenges posed by CE transition, further **underlines the need to create mechanisms to facilitate the synchronisation of national CE related R&D&I agenda at the European level.**

Overview of existing CE platforms

As the studied reports show, the landscape of circular economy platforms is constantly changing in Europe. To identify the gaps in existing platforms and to define the potential added value from the CICERONE platform to national and regional POs, we made an overview of selected platforms (annex 2). These platforms have circular economy as a key focus area and aim to foster European level collaboration. The scrutiny of the existing platform in terms of the gap identification was done by mapping the purpose, types and functions and target groups of the platforms.

The review shows that there are several specific platforms dedicated either on particular themes within the topic of circular economy (eg. EREK platform on resource efficiency & Circular Economy Finance Support Platform on financing CE business) or enhancing cluster specific or cross cluster collaboration for CE business. Furthermore, circular economy research agendas are developed and coordinated in sector-specific platforms such as for example ECERA, which connects European RTOs, and as part of various KIC programmes funded by the European Commission.

Among the existing platforms, the European Circular Economy Stakeholder Platform (ECESP) provides an umbrella for multi-stakeholder collaboration to support the implementation of the EU Circular Economy Action Plan. It was established in 2017 by the European Commission to bring together different knowledge and experiences of circular economy by networking actors both at individual, regional and national levels (EC 2015). National and regional level research initiatives form an integral part of this implementation and therefore, substantially, belong to the broad focus area of ECESP. However, CE research and in particular national and regional research agendas are only one topic among many within the broad ECESP agenda, and therefore do not gain much weight on that platform. Therefore, as a conclusion, we found out that **none of these existing platforms serves as a ground for communicating and coordinating circular economy research agendas arising from the needs and priorities of different EU member states and regions.**

GAPS IN EXISTING PLATFORMS

- Lack of mechanisms to facilitate the synchronisation of national and regional CE related R&D&I agenda of different EU countries with varying priorities at the European level.
- Existing platforms do not serve the needs of coordinating CE research agendas arising from the needs and priorities of different EU member states and regions.
- No systemic multi-governmental and cross-sectoral network for CE.

2.3 Lessons learnt from the functional models of existing platforms

The number of different types of platforms aiming to foster collaboration around CE related initiatives clearly indicates the growing interest on implementing the circular economy agenda in Europe. At the same time, the variety in the thematic focuses also underlines the multiple interests and perspectives embedded in the promotion of CE depending on the engaged actors. Furthermore, the CICERONE review of existing national R&D&I priorities indicate that there varying and even partly contradictive CE strategies in different EU countries (Bahn -Walkoviak et al.2019). This is partly due to different national priorities but may also be caused by differences in how the concept of circular economy is defined in different contexts (Kircher 2017) or what other goals are aimed to address by CE transition (Lazarevic & Valve 2017). The study of European CE Networks (Major CE networks... 2020) emphasises, that due to this complexity, one of the main challenges for CE platforms is to create a common understanding of the concept and idea of circular economy at the first hand and secondly to align the targets and goals of various actors related to specific CE initiatives. This is not made easier by the fact that there are large differences between different regions within Europe in terms of their existing capabilities to respond to the challenge. These challenges are also central when aiming to define synergies between national and regional CE policies and turn them into joint European research programmes. The creation of common language between different stakeholders and aligning of interests requires a) time and commitment, and b) clear focus on particular issues.

KEY SUCCESS FACTORS OF EXISTING PLATFORMS

1: Clear targeting of platform

There is a growing number of existing and emerging CE related platforms, among of which the European Circular Economy Stakeholder Platform already provides a broad umbrella for platform for the implementation of CE goals in Europe. Therefore, the CICERONE platform should target at the clearly defined and particular needs of national and regional Programme Owners (POs) to differentiate from the range of platforms that provide knowledge exchange and networking in CE. Many of CE platforms are established with project funding and seemingly, the post-project continuity is a critical issue with these project funded platforms (in the table 1, for example EREK merges with ECCP). According to network benchmarking, clear focus is for example one of the key factors behind the success of the ERA-Net platform Biodiversa. Therefore, clear customer-centric targeting of the platform activities to the needs of POs is a critical issue in building the future business and governance model of the platform. The identification of potential CICERONE platform services is discussed in more details in the section 4.3 of this report.

2. Genuine stakeholder engagement

Stakeholder networking and knowledge exchange are the key goals of all the studied platforms. However, stakeholder engagement is solved in different ways depending on the organisation of platform. Some platforms put emphasis on direct engagement and flexible and evolving agenda (eg. EARTO) whereas other platforms engage actors mainly through predesigned on-line services. European Circular Economy Stakeholder Platform combines these two by providing digital networking services and a yearly stakeholder conference and coordination group meeting. Regardless of the mode of stakeholder engagement (digital vs. face to face) the responsiveness of platform agenda and services to stakeholders' evolving needs is a distinctive factor between various platforms.

3. Strategic agenda development

Furthermore, when identifying the success factors of existing platforms, the importance of insightful agenda development becomes highlighted. There are examples of platforms that have continued after EU funding with the funding from member states because the engaged actors have found the SRIAs important to implement (eg. Norface, see the benchmark report). This emphasises the role of the CICERONE Strategic Research Agenda, which forms the substantial basis of the platform activities in engaging stakeholders. However, to create substantial ownership for POs, it is essential to continuously validate and further co-develop the SRIA together with the POs as part of platform activities in order to align it with evolving national priorities.

Based on the above, it is essential that particular focus is put in the design of CICERONE platform on **creating continuity and substance ownership** for the key target group, i.e. the national and regional POs. In the following info box, we introduce some remarks on how these issues have been addressed in the studied CE platforms. As CE platforms are relatively recent phenomenon (increasingly emerging after 2015) and there is therefore not yet examples of successful long-term CE related platforms, we also complement our analysis with the findings of the CICERONE benchmark report on sustainability related platforms conducted in Task 3.2.

3 VALUE PROPOSITION OF THE CICERONE PLATFORM

3.1 CICERONE Value proposition and services

The mission of the CICERONE platform is to enable the circular economy transition by initiating, supporting and accelerating the circular economy in national and regional levels through R&D&I initiatives. To do that, the platform addresses the streamlining and channelling of the circular economy public and private funding, accelerating the uptake of innovative policies, benchmarking of good practices and continuous capacity building. As such, it provides a tool for a harmonized European R&D&I framework as a game-changer for circular economy transition.

Based on the identification of specific users' needs and gaps in existing platform, a value proposition presented in the figure 1 was defined for the CICERONE platform:

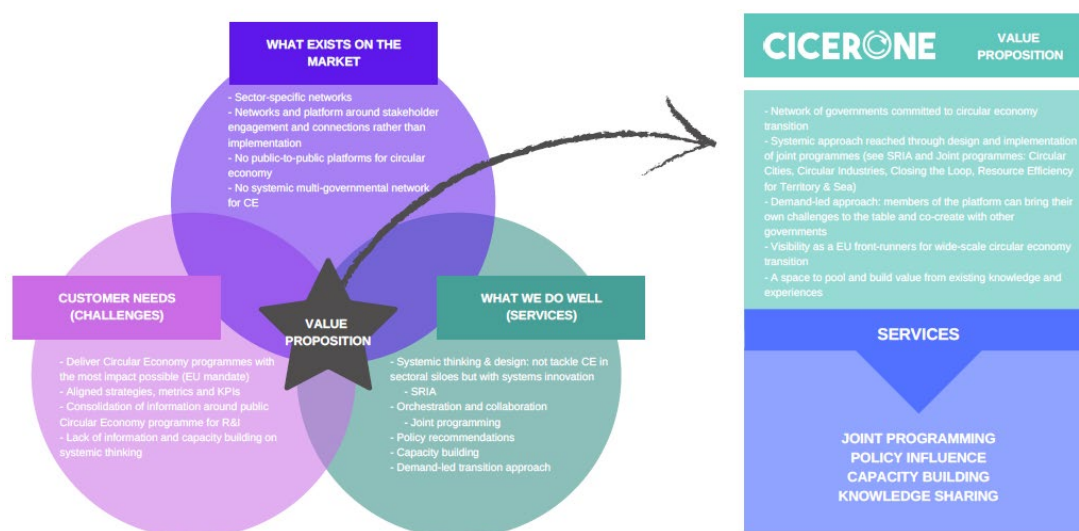


Figure 2: CICERONE value proposition

CICERONE VALUE PROPOSITION

CICERONE platform enables the interface between users' needs and existing resources and knowledge to help national and regional programme owners deliver R&D&I activities for promoting CE transition with the support of tailor-made services including:

- Systemic thinking to tackle CE in collaboration across sectors and regions with systems innovation
- Orchestration and supporting collaboration for Joint programming (multi-level, cross regional)
- Policy recommendations and advocacy through the community management
- New tools and competence development, capacity building

CICERONE platform will enable the generation of:

- Network of governments committed to CE transition
- Strategic Research and Innovation Agenda to support systemic approach reached through design and implementation of joint programmes (including joint programmes for Circular cities, Circular Industries, Closing the Loop, Resource Efficiency for Territory & Sea)
- Co-creative development of CE R&D&I agenda and actions
- Visibility for CE front runners

The CICERONE services

To address the need to create mechanisms to facilitate the synchronisation of national CE related R&D&I agendas at the European level, the stakeholder participants of the November 2019 workshop in Berlin identified following four types of services for the CICERONE platform. While the central aim of the CICERONE platform is to enhance dialogue and joint goal setting to advance circular economy among the European member states having diverse CE goals and implementation capacities, the long-term collaboration for joint programming is the key function of the platform. The other three services support this core function. The more detailed elaboration of the services and the business model of the CICERONE platform is developed in the Task 3.3. and described in the deliverable D-11.

Joint programming: This service, which is the core function and the most important service of the CICERONE platform aims at initiating and then coordinating joint programs between the members of CICERONE. The service has the ambition to contribute to the reduction of the fragmentation of European research in the circular economy and to embark less developed countries in the EU circular economy initiatives. To reach this ambition, the platform will continuously facilitate dialogue between public and private actors in designing joint programs. The joint programming is based on the CICERONE SRIA (D-6), which is jointly elaborated and developed further as part of platform members' collaboration. The prerequisite for the success of joint programming is the ability of platform members to negotiate the joint RIA goals of specific programs to meet the national and regional priorities. Furthermore, the programming cycle should be aligned with the ESIF 2021-2027 cycle, as it is common to all Member States.

Policy influence: This service aims to channel the position of CICERONE members to EU, national and regional policymakers in the funding of circular economy research & innovation activities and cross-border collaboration in this field. In the end, the service is expected to accelerate EU circular economy transition by actively facilitating CE access to funding. Hence, the policy influence services aim to influence to policies on funding research and innovation for CE and to a lesser extent to regulatory policies. The latter ones may enter the agenda with the R&D&I initiatives which depend on regulatory innovations. Related to these, the platform aims to create dialogue between national policy actors

concerning the needed regulatory and policy innovations to enable the experimentation and piloting of circular economy solutions as part of R&D&I actions.

Training and capacity building: This service aims to increase the skills and knowledge base for POs to implement circular economy priorities in their activities. The objective is to reach the four levels of capacity: individual, intra organizational, inter organizational (Joint Programming), external rules incentives (policy). In the further planning of the training and capacity building functions a systematic review of the existing competition in the field in offering similar types of services should be conducted to avoid overlapping and to consider what would be the relevant niche for novel capacity building platform.

Knowledge sharing: Complementary to the capacity building service, this service aims to provide data, information, knowledge on circular economy themes and other targeted needs defined by the main users of the platform. The ambition of the service is to make it easier and smoother the exchange of data, knowledge and know-how between the main users of the platform.

3.2 Potential barriers to reaching the value proposition

The CICERONE value proposition is ambitious particularly due to the very same fragmentation of the European CE policy and research fields that the platform aims to tackle. In the following, the main barriers for reaching the CICERONE value proposition as identified by the consulted POs are identified. The specific means to address these barriers should be carefully considered in the final design of the services and governance models (to be presented in deliverables D.3.2 and 3.3.).

- Despite of the variety of CE initiatives and activities around Europe, the **main barriers that hamper the implementation of the joint activities** are related to the different **national and regional R&D&I priorities** and varying amount of resources to respond to the challenges posed by CE transition by the Member States.
- The **different levels of industrial, infrastructural and behavioral development** (or culture and awareness) as well as economic potential for (funding of) research and innovation. Regions and States with still developing and advanced economic activity may feel the need for adaptation of available technologies and practices through research to that end, rather than developing new advanced methodologies. Increasing mutual understanding is needed to overcome this barrier.
- Furthermore, the different **funding mechanisms and decision-making processes for the R&D&I** in the Member States cause difficulties to pool national funding sources and direct them into common pot for cross-national R&D&I cooperation.
- In general, the administrative restrictions of the funding organizations set requirements and barriers for collaboration. For example, **budgetary requirements and time-planning for funding often differ** to the extent that POs increasingly hesitate to join calls (this is experienced in ERA-nets for example); practical differences challenge the smooth implementation.
- **Lack of common language** and level of linguistic skills of the POs can also be seen as a barrier for a joint initiative platform.

Continuous dialogue is needed to overcome the barriers and to enable joint programming.

The main barriers for reaching the CICERONE value proposition relate to different needs, aspirations, goals and competencies of the EU member states in CE policies and actions. Following from this the **facilitation of mutual dialogue** is a prerequisite for the success of the platform. Joint programming and

joint calling will inherently be the result of a longer process of raising mutual understanding of the needs among potential partners:

- (1) mutual understanding of substantive (regulatory and non-regulatory) policy needs,
- (2) mutual understanding of needs for innovation,
- (3) mutual understanding of research needs,
- (4) agreement about programming jointly that research, with a view to,
- (5) possible joint calling.

3.3 Practical examples of regional collaborative joint programming

To illustrate the benefits and models of joint EU level R&D&I programming platforms, two different case examples of PO experiences of well-functioning joint actions in similar types of substance areas than circular economy are introduced in the infoboxes 1 and 2. The first example (infobox 1) presents a multi-actor approach in boosting the circular economy in the North Sea whereas the second example (infobox 2) presents Nordic RIA collaboration in Climate action supported by strong top-level commitment of policy actors.

Infobox 1: Boosting the circular economy in the North Sea region through a collaborative, multi-stakeholder approach.

The international Green Deal North Sea Resources Roundabout (NSRR):

Project Description

The Netherlands started working with “Green Deals” to promote green growth in 2011. Since then more than 200 green deals have been established in various areas. In this approach the central government facilitates innovative and voluntary initiatives from businesses, non-governmental organizations (NGO’s) and local authorities, either by supporting networking or by addressing legal barriers.

The International Green Deal on the North Sea Resources Roundabout (NSRR) started in 2016. This International Green Deal NSRR was in line with the objectives of the European Union’s Circular Economy Package adopted on the 2nd December 2015.¹ Governments of Member States at the North Sea coastline participated as well as private partners and ‘observers’, such as the European Commission, in particular the services responsible for Research and Innovation, Environment and for Internal Market, Industry, Entrepreneurship and SMEs, in consideration of their support to Green Growth and their role in the implementation of the Circular economy package.

The initiative was stopped in 2019, despite the fact that partners were quite successful in addressing cross-border issues that formed a key barrier for accelerating circular economy and free trade¹.

One of the factors that led to this premature adjournment was the Brexit referendum, but also the lack of both available experts and high-level support had its influence on this decision.

The Difference of a European CE platform

Bottom-up cooperative approaches such as the Green Deal for the North Sea Resources Roundabout, are crucial to reach the speed of innovations that bring about the different transitions. If this initiative could have built upon a European platform for Circular Economy, with broad technical and institutional expertise, and high-level support, it would most likely still exist and be successful, not only to change the circumstances in countries around the North Sea, but also in other coastal areas, such as the Baltic Sea and Mediterranean.

Infobox 2: Boosting regional collaboration for climate research

Nordic Top-Level Research Initiative on Climate, energy and the environment**Joint identification of knowledge interests**

The Nordic Top-Level Research Initiative on climate, energy and the environment (2009 - 2013) is one example of the cross-national R&D cooperation action that was based on the common interest of the five Nordic countries (Finland, Sweden, Norway, Denmark and Iceland). The Nordic Prime Ministers, who identified the common challenges in the areas of climate, energy and the environment, launched the initiative.

Pooling funding

Nordic national institutions and agencies for financing the R&D activities supported the Top-level Research Initiative by pooling the funds to a common pot. The budget, altogether was around € 52 million (400 million DKK) over five years.

Management of platform

A Management Board of 15 representatives from all Nordic countries managed the cooperation platform. Members of the Board represent public financing bodies for research and innovation, as well as the private sector. The Board appointed programme committees for the sub-programmes, who took responsibility of the R&D calls and selection of projects to be funded. The Secretariat, a supporting function, was allocated to three Nordic institutions: [NordForsk](#), [Nordic Innovation](#) and [Nordic Energy Research](#).

Critical success factor: national top level commitment

The Top-Research Initiative of the Nordic countries was carried out with a considerable success. However, the execution of the initiative was highly dependent on the top-level decision by the Prime Ministers, the commitment of the national funding organizations and the timely and efficient supportive operations by the Secretariat.

<http://www.toppforskningsinitiativet.org/en/om-toppforskningsinitiativet>

4 FUNCTIONAL MODEL OF THE CICERONE PLATFORM

As described in the CICERONE value proposition, CICERONE platform is a demand-based and actor-driven platform that promotes the co-ordination and synchronisation of national and regional CE R&D&I priorities towards impactful European CE research. By definition, platform refers to a business model that focuses on the facilitated interaction of wide range of stakeholders and participants (eg. Hogel 2015). Platform provides a structure for wide set of activities that are **accessible** to the platform stakeholders. In addition to accessibility, our background study on existing CE related platforms indicated that the **engagement** and ownership of the agenda development of actors appear to be critical success factors for sustainability platforms. Furthermore, continuity also requires that the platform is **financially sustainable**.

To specify the most feasible functional frame for the CICERONE platform, the project created three different platform types and investigated their strengths and weaknesses in terms of the particular needs of national and regional programme owners and potential governance and business models of platforms.

1. *Service-driven platform*

The added value of the service-driven platform is based on carefully designed, easy to access and easy to use, services for its users. These services advance online knowledge sharing between local, regional and national authorities and other relevant stakeholders and may include databases for knowledge sharing and partner search, and R&D themes and trends. It may provide a channel for dialogue and joint preparation of research initiatives. Digital platform can be complemented with physical activities such as facilitation and orchestration of joint initiatives and targeted events, surveys and background research, training and capacity building services or lobbying.

As service-driven-platform has a clear ownership and are typically driven by the service operator, e.g. consultant, and not by engaged actors. Commercial consultant companies and ecosystem orchestrators typically operate service-driven platforms. Actors, which are in whole or in part financed by public funds, e.g. EIT KICs, can also operate service-driven platform. The critical success factors of the service-driven platform depend on the competency and resources of the platform operator as well as the ability to design the services that are based on in depth understanding of the user needs. The business model of the service-driven platform is based on service fees, which are usually carried out in market price basis.

The service-driven platform can be a suitable model for the CICERONE platform. The digital and physical services can be provided by the actors like EIT Climate KIC or consultant-like of entities. However, the heavy competition with the similar service providers and the difficulties to engage and activate the POs in the platform collaboration or to utilize the service as customers are the major weak points in service-driven model. The weaknesses and strengths of service-driven platform type as a model for the CICERONE platform are described in table 2.

Table 2. Strengths and potential weaknesses of service-driven platform

Strengths	Weaknesses
<p style="text-align: center;">ACCESSIBILITY</p> <p>Combination of digital and physical format Accessibility for large user group</p>	<p style="text-align: center;">ACCESSIBILITY</p> <p>Heavy competition with large number of providers - low user engagement</p>
<p style="text-align: center;">ACTOR ENGAGEMENT</p> <p>Services by demand Flexibility - no need for actors to engage in platform operations</p>	<p style="text-align: center;">ACTOR ENGAGEMENT</p> <p>Potentially weak engagement of actors, customers rather than agenda owners Risk of not addressing the changing customer needs due lack of engagement</p>
<p style="text-align: center;">GOVERNANCE & BUSINESS MODEL</p> <p>Efficient and lean governance model, clear ownership (private actors) Transparent invoicing system -service fees, pay by use</p>	<p style="text-align: center;">GOVERNANCE & BUSINESS MODEL</p> <p>Unclear ownership and/or business model (public actors) Inefficient and layered governance system (public actors) High operation and service costs Quality of the services - price vs expectations Reluctance of actors to pay the service fees</p>

2. **Actor-driven platform**

Contrary to the service-driven platform, which is strongly at the hands of service providing operator, actor-driven platform forms a continuous and systematic collaboration between engaged actors. It is initiated, steered and co-owned by its members and should have a strong mandate from national and/or regional decision makers. The platform can be organised either more formally as a legal entity (association etc.) or less formally as an alliance or network. The actor-driven platform usually has a facilitator or Secretary General to ensure the smooth operation of the platform. Regardless of the formality of organisation, the success of an actor-driven platform is fully dependent on the commitment of the engaged members. Thus, this type of platform needs inspiring ambassadors who expand the membership, initiate actions and motivate other members to participate in joint activities. Example of this kind of platforms is European Association of Research and Technology Organization (EARTO) is an example an actor-driven platform.

An actor-driven platform may offer similar kind of services than a service-driven platform. The difference lies in the flexibility of offered service portfolio. As the core of an actor-driven platform is not on a particular service design but in evolving and issue-based collaboration, an actor-driven platform is, at its best, more agile with regards the changing and evolving needs of participants and can for example purchase services from a broad range of services providers in a need-based manner. To ensure this flexibility and to assure the legitimacy of platform actions, the governance structure should be as transparent and lean as possible. In many case, the financial model is based on membership fees.

Based on the lessons learnt from the review of existing platforms, it appears that the Actor-driven platform model is the most efficient one to facilitate the stakeholder involvement. Therefore, as actor-driven collaboration is at the core of the CICERONE value proposition; this platform format seems to be the most suitable model for the CICERONE platform. The “ownership” and active role of the members ensure that the platform acts on the demand-basis and thus provides tools and activities that are needed by the POs. The major weak point is the difficulty to find the early adopters who commit and motivate others to join the platform as members. The weaknesses and strengths of actor-driven platform as a model for the CICERONE platform are described in table 3.

Table 3. Strengths and potential weaknesses of actor-driven platform

Strengths	Weaknesses
<p>ACCESSIBILITY</p> <p>High flexibility and easily expandable</p>	<p>ACCESSIBILITY</p> <p>Exclusive to members</p> <p>Accessibility to other stakeholders</p>
<p>ACTOR ENGAGEMENT</p> <p>Members in the driver’s seat - ownership by the members</p> <p>Need-based services and initiatives</p> <p>Members are providers</p> <p>Exclusivity and trust among the members</p>	<p>ACTOR ENGAGEMENT</p> <p>Difficulty to commit the early adopters who are the primus motors in building up the platform</p> <p>Engagement of the members</p>
<p>GOVERNANCE AND BUSINESS MODEL</p> <p>Based on membership & membership fees-continuity</p> <p>Efficient and lean governance model</p>	<p>GOVERNANCE AND BUSINESS MODEL</p> <p>Connection to other platforms</p> <p>Too high membership fee may hinder participation</p>

3. Platform of platforms – connecting platform

Platform of platforms is a systemic digital platform format, which is consisted of like-minded businesses that can leverage digital services available to wide stakeholder and customer groups. Digital platform of platforms has a property to connect all the existing platforms and relevant databases and clusters. It is openly accessible to wide range of stakeholders and provides continuously revised and updated information for its users.

The existing examples of platform of platforms are mainly owned by commercial and private companies that makes their digital services available to as large number of clients as possible. The business model is based on the commercial revenues at market prices. The weaknesses and strengths of platform of platforms as a model for the CICERONE platform are described in table 3.

The basis of platform of platforms model is on algorithms that are designed for issue identification and data mining activities. It lacks the direct interaction possibilities among the users, and thus not suitable model for the CICERONE platform. The financial model is based on commercial revenues at market price, which is not realistic taking into account the main target group of the CICERONE platform.

Table 4. Strengths and potential weaknesses of platform of platforms

Strengths	Weaknesses
<p>ACCESSIBILITY</p> <p>Non exclusive</p> <p>Access to all relevant knowledge in existing national/regional databases n circular economy for a wide range of stakeholders</p> <p>One stop shop for all the knowledge sharing, initiatives and follow-up</p>	<p>ACCESSIBILITY</p> <p>Technology issues</p>
<p>ACTOR ENGAGEMENT</p> <p>Easy to use, no need to commit</p>	<p>ACTOR ENGAGEMENT</p> <p>No active engagement, actors are customers</p> <p>Unclear responsibility mechanisms in updating and openness</p> <p>Willingness to share</p>
<p>GOVERNANCE & BUSINESS MODEL</p> <p>Service fees simple for customers</p>	<p>GOVERNANCE & BUSINESS MODEL</p> <p>Unclear governance and costs mechanisms</p>

5 CONCLUSIONS

This report has outlined the guiding principles for the strategic design of the CICERONE platform based on the stakeholder surveys; reviews of existing CE related platforms and several stakeholder workshops. The figure 2 compiles the elements of the CICERONE value proposition into one comprehensive picture. It presents the identified customer needs and challenges, gaps in existing platforms and the specified value proposition of the CICERONE platform as introduced in the sections 2 and 3. Furthermore, the report briefly introduced the four core services of the CICERONE platform with a special emphasis on Joint programming service which is identified as the core function of the CICERONE platform (Deliverable report 3.3 will introduce these services in detail). The report also identifies the barriers for reaching the CICERONE value proposition and underlines the importance of facilitating dialogue between stakeholders to create mutual understanding of different CE R&D&I priorities among member states and to boost multistakeholder collaboration.

In addition to the value proposition, the report also introduces three different types of functional models for the CICERONE platform and compares their strengths and weaknesses in achieving the CICERONE value proposition.

Due to different needs, targets and ways to operate in the nations and regions The European landscape in the transition towards circular economy is very fragmented. To ensure the adaptation of the joint, cross-European circular economy R&D&I goals, the commitment of the national and regional POs is a necessity. The CICERONE platform aims to create a demand-lead and co-creative space for communication and collaboration between national and regional POs and other relevant stakeholders in designing and implementing European R&D&I in circular economy transition. The actor-driven platform format, which is based on clear ownership and commitment by the users, would be the most suitable format for CICERONE platform. This is supported by the experiences on existing sustainability platforms, which indicate that the substance ownership of actors is an essential factor in ensuring the continuity of established platforms after project funding. The presented platform types are not completely mutually exclusive and elements from actor-driven and service-driven platforms can be combined if it enables the most feasible model for the platform operation. This report did not investigate in detail different governance or business models for various types of platforms or there combination. These are elaborated in the tasks 3.2 and 3.3 based on targeted PO interviews and business and governance model workshops.

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Annex 1. Methodology for the strategic design of CICERONE platform.

Surveys & Literature reviews

The dedicated surveys and interviews, which were carried out in WP 4 and designed for national and regional programme owners were used as baseline in defining the need and purpose of the CICERONE platform. The detailed insights and validation of the findings were gathered from the stakeholder workshops facilitated by the professionals from LGI-Consulting and Climate KIC to ensure the adequate engagement and knowledge sourcing from different stakeholder groups. Desk studies and literature surveys were utilized to fill in the gaps.

Review of existing platforms

The gaps in existing platforms dealing with CE issues were identified by a review of platforms. As a background for this work, we utilized the CICERONE benchmark study of governance and financing models of European Clusters and Platforms (Rizos et al. 2019)., conducted as part of Task 3.2. Furthermore, a recent study of European Circular Economy Networks conducted by INEC & OREE in 2020 (Major CE networks... 2020) provided valuable insight for the general rationales and functioning models of European circular economy platforms. Based on previous studies and stakeholder workshop findings, we focused our platform review on a set of selected platforms which have circular economy as a key focus area and aim to foster European level collaboration, and identified the potential value added that CICERONE platform can provide for the particular target group of national and regional POs in this context. This was done by mapping the purpose, types and functions and target groups of the platforms. The results are introduced in the Sections 2.2 and 2.3 of this report.

Methodology for the definition of value proposition & functional frame

The value proposition and the functional frame of the CICERONE platform were defined by utilizing the Value Proposition Design Methodology based on stakeholder workshops certified by the LGI-Consulting professionals. Internal workshops in Paris and Brussels (May 2019; September 2019) defined the platform model and stakeholder workshop in Berlin (November 2019) identified and defined potential services and means to engage the POs as platform users. Furthermore, in January 2020 potential finance and governance models for the platform were elaborated in internal workshop held in Brussels.

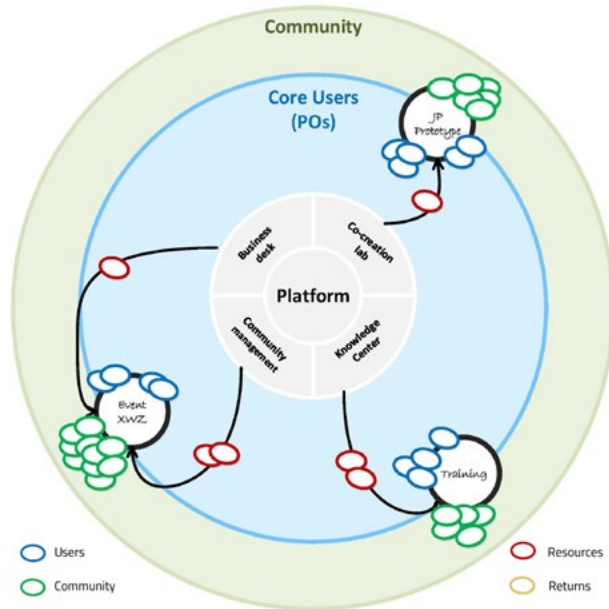
The deep understanding of the different options for a functional and operational frame and potential service model was obtained by utilizing a platform prototyping tool designed by Climate-KIC and modified business model canvas approach in the group works (annex 3). The platform prototyping tool tackled the needs and expectations concerning business, community, co-creation and knowledge sharing issues with a facilitated method. A list of selected services creates the main outcome. The business canvas approach scrutinizes the overall image of the selected services, potential finance and governance models for the CICERONE platform. Furthermore, questionnaires and PO interviews provided supplementary data of the needs and expectations from the POs point of view. (annex 1).

Annex 2. Overview of existing CE platforms.

PLATFORM	PURPOSE	TYPE/FUNCTIONS	TARGET GROUP
European Circular Economy Stakeholder Platform (ECESP) https://circulareconomy.europa.eu/platform/	To support the implementation of the European Circular Economy Action Plan; knowledge exchange, enhancement of dialogue	<ul style="list-style-type: none"> - Digital knowledge exchange platform & - Yearly Circular economy stakeholder conference - multi-stakeholder coordination group meeting once a year (members selected from civil society organisations, business and trade union representatives, think-tanks, research centres and public bodies) - meeting once a year 	Broad range of actors from policy makers, public bodies, business, research centres, civil society organisations etc.
Circular Economy Finance Support Platform https://greenfinanceplatform.org/financial-measures-database/eu-circular-economy-finance-support-platform	To promote the coordination and knowledge exchange needed to enhance investments in the circular economy	Issue-based collaboration between the European Investment Bank experts & EC circular economy financing group experts	EIB, Companies
European Resource efficiency Knowledge Center (EREK) (Merges with ECCP in 2020) https://www.resourceefficient.eu/en	To help European companies to improve material efficiency	Online EREK platform ; includes information of resource efficiency tools for SMEs ; Database and managed European network of the national and regional organisation providing support to SMEs in resource efficiency schemes ; Capacity-building and training workshops	Business support organisations. SMEs in different business fields
European Circular Economy Research Alliance (ECERA) https://vito.be/en/news/ecera-european-circular-economy-research-alliance	<ul style="list-style-type: none"> -To find and explore complementarity of research programmes on circular economy of the expert research and technology organisations in Europe -Identify synergies and to be a knowledge 	<ul style="list-style-type: none"> -Voluntary collaboration network between European RTOs -- Generation of joint initiatives - white papers and policy briefs - workshops 	European RTOs

	<p>integrator between various initiatives at national and European levels</p> <ul style="list-style-type: none"> - provide collaboration between RTO's to support the creation of spin-offs, start-ups on circular economy area and to support SME's growth. -Contribute to the EU's Strategic Research Agenda on CE. Represent the RTO's in stakeholder processes such as the Circular Economy Stakeholder Platform and its coordination group. 		
<p>European Cluster Collaboration platform (ECCP) https://www.clustercollaboration.eu/</p>	<p>Provides networking and information support for clusters and their members aiming to improve their performance and increase their competitiveness through trans-national and international cooperation.</p>	<p>Knowledge exchange platform Matchmaking events</p>	<p>Cluster organisations</p>
<p>European Research Area (ERA) platforms addressing CE topics, eg. ERA-MIN</p>	<p>Coordination and among national research systems and the support of public-public partnerships in particular research areas..</p>	<p>Varies depending on the platform - conduct joint calls and implement strategic research agendas</p>	
<p>OTHER, NON CE SPECIFIC PLATFORMS: EIT KICs (Climate, RawMaterial),European Alliance of Research and Technology Organizations (EARTO)</p>			

Annex 3. A platform prototyping tool.



- **Step 1 (5 min)**
Present the list of Services
- **Step 2 (5 min)**
Vote on your top 3 services
- **Step 3 (10 min)**
Split into 2 groups of 4 participants. For the service you are designing, please indicate users and community beneficiaries
- **Step 4 (10 min)**
Indicate resources needed to provide the service

