



Policy Paper

**Best Practices
for Stakeholder
Engagement:**

**Co-Creating
National
Bioeconomy
Strategies**

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Executive Summary

Many European countries and regions still need to develop strategies to unleash the potential of the bioeconomy. To achieve this, policymakers need to include all stakeholders to create and implement a credible long-term vision that can ensure all viewpoints are heard, and interests are balanced. Based on experiences gathered from Austria, Finland, Germany, the Netherlands and Sweden, CEE2ACT has developed a replicable stakeholder engagement strategy which involves:

1. Establishing a stakeholder engagement platform with all critical sectors involved, including national ministry representatives;
2. Defining the organisational set-up around an existing network or cluster, or establishing a new working group under the ministry's control;
3. Performing a complete stakeholder mapping at all levels and considering their strategic role in the bioeconomy;
4. Establishing the platform's business model and long-term sustainability, and;
5. Proposing platform actions to build trust, exchange knowledge, and set a shared long-term vision and strategy.

To this end, CEE2ACT can make the following recommendations for policy-makers regarding the involvement of stakeholders:

- Develop new stakeholder engagement infrastructure for open dialogue;
- Enable collaboration and knowledge transfer to find solutions to potential conflicts;
- Understand the viewpoints of every sector to balance out differing interests;
- Raise awareness and educate citizens.



Introduction

In the updated version of the European Bioeconomy Strategy of 2018, the European Commission further committed itself to include sustainable development as an essential guiding principle in all its policies and, in that way, to contribute without any delay to the UN Sustainable Development Goals.

The Updated Bioeconomy Strategy set out five priority areas – ensuring food security, managing natural resources sustainably, reducing dependence on non-renewable resources, mitigating and adapting to climate change, and creating jobs to maintain European competitiveness. Several important European policies were defined based on the main priority areas – job creation, climate mitigation, modernization and strengthening of European industry, healthy ecosystems and biodiversity, and circular economy. This 2018 Bioeconomy Strategy and its Action Plan fostered the creation, adaption, implementation and revision of national and regional bioeconomy strategies across Europe.

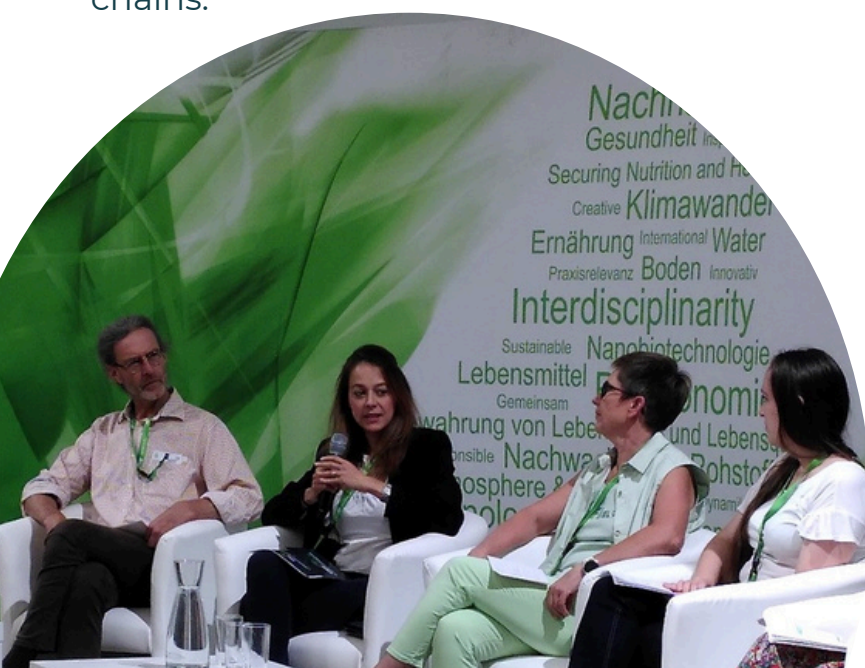
Today, we have 10 Member States and 128 European regions with adopted bioeconomy strategies, whereas seven additional Member States and one other region are in the process of developing a bioeconomy strategy. In addition, 369 other European regions are in the process or have already adopted strategies in which the bioeconomy is one of the key elements, and 596 other regions have strategies with a minimum bioeconomy content

The European Commission has defined bioeconomy as “covering all sectors and systems that rely on biological resources (animals, plants, micro-organisms and derived biomass, including organic waste), their functions and principles. It includes and interlinks land and marine ecosystems and the services they provide; all primary production sectors that use and produce biological resources (agriculture, forestry, fisheries and aquaculture); and all economic and industrial sectors that use biological resources and processes to produce food, feed, bio-based products, energy and services”.



This paper provides an insight of stakeholder engagement methodology and practice within the CEE2ACT Project, whose aim is precisely to strengthen capacities of countries in Central and Eastern Europe (Bulgaria, Croatia, Czech Republic, Greece, Hungary, Poland, Romania, Serbia, Slovakia, and Slovenia) to draft their bioeconomy strategies by applying some of the knowledge and experience in engaging various stakeholders from more experienced countries (Austria, Finland, Germany, the Netherlands, Spain and Sweden). Further, it proposes some recommendations to the policymakers on why and how to engage various actors in different sectors to work jointly on developing quality documents that will serve to achieve a common goal in bioeconomy on regional, national and European levels.

The bioeconomy encompasses diverse sectors, each composed of different actors with various interests and perspectives. Its development and success depend on the ability of relevant stakeholders from different domains and sectors to collaborate in developing and implementing strategies and creating new value chains.



The necessity to include a large variety of interest groups in decision-making discussions on complex, versatile and deep topics was first recognised at the UN Conference on Environment and Development in Rio in 1992, during a discussion on sustainability where it was said that participation of stakeholders in environmental decisions is of utmost importance. This speaks in favour of cooperation between stakeholders to develop an effective bioeconomy strategy since the bioeconomy at the European level is strongly dedicated to reaching the Sustainable Development Goals. Therefore, development of bioeconomy strategies offers opportunities for multi-stakeholder and cross-sectoral collaboration.

Multi-stakeholder engagement involves diverse actors who share an interest in a particular issue and collaborate to achieve a common goal. This process aims to incorporate diverse stakeholders across scales, sectors and knowledge systems with different perspectives, experiences and needs, and is based on principles of cooperation, inclusiveness and dialogue.

The engagement of stakeholders means exchanging information, listening to and learning from stakeholders to drive the strategic direction and operational excellence, and contributing with the best possible practice, which stakeholders and wider society can benefit from. Stakeholders can be engaged in many ways, which go from information sharing to participation in decision-making, **following one of five engagement levels: inform, consult, involve, collaborate and empower.**

In the case of bioeconomy strategy development, this would mean that the result is to adopt and draft the best possible strategy which provides benefits for all the stakeholders and as many actors as possible in the bioeconomy field to collaborate on defining the strategy text, share knowledge and participate in the strategy drafting body or group work.



There are several reasons why it is crucial to engage stakeholders in drafting bioeconomy strategies:

- Engaging with stakeholders allows policymakers to **identify diverse perspectives, requirements and needs**, and reach informed decisions to tailor strategies that can effectively address specific challenges.
- Multi-stakeholder engagement helps **overcome sectoral thinking** and **better address linked social-ecological challenges** in bioeconomy strategies. Involvement of actors from several sectors and of different standings in the drafting of bioeconomy strategies ensures that these strategies are more **representative, relevant, and effective**, while also building **strong trust and credibility**.
- Engaging diverse stakeholders creates a **coalition of motivated actors** that together drive change and feel they **have ownership** of the process and the outcome.
- This approach creates more **stability and consistency** in the bioeconomy strategy development process, and potential volatility from changes in political administrations is somewhat dampened.
- The collaborative work often means **more effective work** and the production of **better results by decision-makers**.
- It allows the ideas to be **tried, tested and refined** before adoption, even if there is some disagreement or conflict, ensuring **smooth adoption** and implementation. This additionally **lowers the risk** of bad results.
- When stakeholders from different backgrounds come together, the potential for **innovation and creative problem-solving** increases exponentially.

Identified stakeholder groups within the process of developing bioeconomy strategies include:

- **Policy-makers** – ministries, local and regional authorities, public institutions
- **Businesses within biobased sectors** – chambers, business associations, SMEs, individual companies
- **Research and academia** – universities, faculties and higher educational institutions specialized, research institutes
- **Citizens, environmental non-governmental organisations and consumer associations.**



Policymakers in CEE2ACT target countries (Central and Eastern European countries that need to draft their national bioeconomy strategies) must successfully gather the business sector, academia and research institutions, local and regional governments, and environmental NGOs and lead them in jointly developing their strategy.

Therefore, they must know their stakeholders, what incentives would motivate them to collaborate on this policy work, how to organize them in the best possible way, and how to manage this process to achieve the desired outcome. Additionally, they need to understand stakeholders' concerns regarding social perceptions, potential conflicts of interest, and technological and financial challenges for implementation.

Experiences in Developing Bioeconomy Strategies: Examples of CEE2ACT Contributing Countries

CEE2ACT is empowering countries in Central and Eastern Europe and beyond to develop circular bioeconomy strategies and action plans through innovative governance models. The initiative builds on the practices of experienced countries, while addressing relevant economic, social and environmental aspects in their countries. Contributing countries include Austria, Finland, the Netherlands, Germany, Spain and Sweden.

Austria

The development of the [Strategy](#) involved interdepartmental collaboration between several federal ministries - for Sustainability and Tourism, for Transport, Innovation and Technology and Education, Science and Research. The Federal Government was advised by a high-ranking committee of experts on the concrete design of the strategy. To involve all relevant stakeholders, an extensive consultation process was also held with two comprehensive online surveys and an expert conference.



The basis for the Strategy is formed by European and international objectives and commitments such as the Paris Climate Agreement or the United Nations Sustainable Development Goals (SDGs) made binding in the 2030 Agenda. The Austrian bioeconomy intends to combine technology and ecology and emphasises the use of renewable resources, particularly from forests and agriculture, while reducing dependence on fossil raw material imports.

After the adoption of the Strategy, a nationwide series of workshops on the preparation of a bioeconomy action plan was launched, with a total of 19 events and input on the individual fields of action were collected from more than 400 participants from all stakeholder groups concerned. The open discussions clearly showed the great interest and the opportunities and challenges associated with the topic in Austria. CEE2ACT partner BOKU prepared [a video on the Austrian bioeconomy strategy](#), for the first CEE2ACT workshop series, available in our [CEE2ACT YouTube playlist](#).

Finland

The [Finnish Bioeconomy Strategy](#) was also developed in cooperation with several ministries - Economic Affairs and Employment, Agriculture and Forestry, Environment, Education and Culture, Social Affairs and Health, Transport and Communications, Finance and the Prime Minister's Office. Its vision is “sustainably towards higher value added”. Since it promotes the well-being of society, attention is paid to the holistic sustainability of the bioeconomy and the fair distribution of benefits and disadvantages.



The measures of the Bioeconomy Strategy are focused on higher value-added from bioeconomy, strong knowledge and technology, competitiveness, and sustainability of bioresources ecosystem services. The strategy includes sector-specific measures and funding resources. It includes the implementation of an RDI programme for the green transition of bioeconomy and some innovative pilots and demonstration facilities. In terms of sectors, it primarily revolves around forestry, related industries, construction, energy, agriculture, and the food sector, all of which are integral components.

The challenges faced in bioeconomy development include the limited involvement of the average citizen in the process and the predominance of forest-based industries, which could potentially hinder innovation opportunities from other sectors. Similarly to BOKU, CEE2ACT partner LUKE prepared [a summary video on the Finish bioeconomy strategy](#).

Germany

The German bioeconomy is oriented towards sustainability, addressing societal needs and establishing a strong connection between the economy and ecology on the one hand and fostering innovation through research and development on the other. Two foundational elements of the German bioeconomy are agriculture and forestry. Effective collaboration, both at the national and international levels, is a crucial element in advancing development and implementation, but like Finland, it is acknowledged that there are challenges related to the underrepresentation of certain stakeholders in the process that could limit the actions and implementation.



However, Germany used an innovative approach to citizen engagement. In 2020 and 2021, the Science Year dedicated to the topic of the bioeconomy, citizens were invited to actively participate in dialogue with science and research within the framework of numerous discussion and participatory formats in the project. CEE2ACT partner CSCP prepared [a summary video on the German bioeconomy strategy.](#)

The Netherlands

The Netherlands introduced its Bioeconomy Strategy in 2018, with a strong emphasis on key knowledge and business domains. These include agrifood, biofuels, green chemistry, biomaterials, and biorefineries.

The Netherlands has demonstrated proficiency and expertise in establishing collaborative networks involving multiple stakeholders. In drafting the strategy, they employed a 'quadruple helix collaboration', encompassing government, academia, industry, and civil society. This approach fostered learning and alignment among the various actors involved in bioeconomy strategy development.

Although the collaborative and multi-stakeholder engagement approach was extremely successful, challenges encountered in the Dutch bioeconomy strategy development included the difficulty of creating social awareness regarding planetary boundaries, and more general societal and political indifference towards recognizing the urgency of sustainability transitions. CEE2ACT partner WUR prepared a [summary video on the Dutch bioeconomy strategy.](#)



Spain

The initial phase of drafting the Bioeconomy Strategy saw strong political commitment that provided support and a vision for this initiative. The Government established a working group consisting of diverse stakeholders from both the public and private sectors, tasked with drafting the working document. Public consultations were organized, the Strategy was disseminated through emails and social networks. Spain also conducted an assessment of the potential biomass to be prioritized. In spite of this, the country acknowledges the need for greater stakeholder representation, like Germany and Finland. CEE2ACT partner CIRCE prepared a [summary video on the Spanish bioeconomy strategy](#).

Sweden

The Swedish Bioeconomy Strategy was developed very early in 2012, with a strong focus on research and innovation, emphasising the priority of achieving fossil-free competitiveness in bioenergy and bio-based feedstock for industries. In 2018, the promotion of circular economy started. A comprehensive national Bioeconomy Strategy is underway, integrating biorefineries and biorefinery technologies, encompassing energy efficiency and environmental technology. Furthermore, Sweden has valuable insights stemming from private sector engagement in developing the Strategy and various collaborative efforts involving research, industry, and Government within national strategic innovation programs and regional innovation hubs. Based on these experiences, one of the challenges is ensuring the preparation of a sustainable biomass supply to meet the domestic demand.

Tips and tricks for stakeholder engagement – lessons learned

- Organise expert committees, expert conferences, workshops and public events (Austria)
- Include all relevant ministries to give their contribution and define the vision behind the bioeconomy strategy (Finland)
- Try to find imaginative ways to include citizens in the process (Germany)
- Use 'quadruple helix collaboration' to share knowledge between the variety of stakeholders (the Netherlands)
- Use e-communication to consult the public and attract them to contribute (Spain)
- Rely on the private sector for both their input and implementation at the later stage (Sweden)

CEE2ACT methodology on stakeholder engagement

The stakeholder engagement strategy in CEE2ACT combines a top-down and bottom-up approach, which is key for the project's goals. Through a gender-inclusive, integrative, and participatory approach, the developed methodology seeks to engage and bring together key actors - national ministries and other competent authorities responsible for drafting the strategy, regional and local government, universities and research institutes, the private sector in the form of companies, clusters, business support organisations, and NGOs. Although the final list of stakeholders differs between countries, the importance of their collaboration and the methodology applied do not change.

CEE2ACT promotes dialogue and knowledge exchange between these actors so that they can benefit from their expertise and resources they have. This leads to an increased awareness of bioeconomy issues among the stakeholder groups and the public. This approach helps foster a deeper commitment from the involved actors to bioeconomy strategies, thus increasing readiness and efficiency of strategy implementation. The methodology and tools proposed within the CEE2ACT Project by partners involve several steps:

1. Organisation of a platform for stakeholder engagement

CEE2ACT establishes national bioeconomy hubs. These “organisations” focus on promoting and facilitating the development of a bioeconomy strategy in a particular country. They bring together different stakeholders – policymakers, researchers, entrepreneurs and other stakeholders, to discuss new technologies, products, and services that rely on biological resources - and use the discussion results for strategy development.



Since the strategy's preparation falls within the domain of one or several ministries, it is crucial that ministry representatives participate in the Hubs' efforts to develop a national strategy. In practical terms, the hub serves as an expert platform for various stakeholders involved in developing and implementing the bioeconomy.

In this methodology hubs are perceived as umbrella groups able to understand the bigger picture and include already existing structures and initiatives. Their role, therefore, goes beyond the project duration, and they should become platforms of motivated members for further collaboration within the hub framework.

2. Defining the optimal organisation setup

The formation of the hubs depends on the situation. Some countries have similar structures, such as clusters or business associations, so stakeholder engagement can be built around them by inviting a broader range of stakeholders. Sometimes hubs will be built around already existing working groups within various ministries responsible for drafting a bioeconomy strategy. Hubs do not have strict legal structure, but nevertheless they need to be recognised as official platforms for bioeconomy with a single voice in respective countries.

For example, stakeholders should have a unified appearance towards the outside and a membership in the hub needs to be approved by the stakeholders, so that they have the feeling of participation and contribution in policy development. At first, the hub coordinators are project partners from CEE2ACT target countries who know the local context, who understand bioeconomy barriers and challenges and have networks which will allow them to effectively leverage opportunities in their respective regions. In order to secure hub continuation, it is important to work on institutionalisation of the hub's future work.



3. Stakeholder mapping

One of the most important steps is to ensure that strategic and relevant stakeholders are attracted to the hub. Therefore, the involvement of stakeholders with a high relevancy for the bioeconomy in each country is crucial. For this purpose, a tool was invented that divided the list of stakeholders into three main types:

- Existing networks/initiatives/clusters in the bioeconomy sector;
- Bottom-up stakeholders, i.e. all stakeholders that are not in the national government;
- Top-down stakeholders, i.e. generally understood as national public authorities and government.

For each of the stakeholders within these three types, additional sets of information were gathered: the topic or sector of their interest, organisational information; the interest and importance of their engagement (stakeholders were rated from 0-10 for their potential interest in CEE2ACT and their importance for the success of the project), challenges and opportunities for attracting the stakeholder in the hub (important to decide when and how to best approach the stakeholders mapped for an effective and tailor-made strategy) and entry point (level of already established cooperation and connection). See below for an example canvas that can be used for stakeholder mapping and engagement.

Key Bioeconomy Sectors

Existing networks/initiatives/clusters

Name of the cluster/network/initiative	Topic area/Sector	Organisation members, legal form, initiator	Interest to participate/business to participate	Important considerations e.g. conflicts of interest, ongoing initiatives to link to, etc.	Entry Point
<div style="font-size: 0.8em;">When is the end of the legislature?</div> <div style="font-size: 0.8em;">Ministry name</div> <div style="font-size: 0.8em;">Explanation of the mandate</div> <div style="font-size: 0.8em;">Bioeconomy Strategy</div> <div style="font-size: 0.8em;">Interest to participate/business to participate</div> <div style="font-size: 0.8em;">Important considerations</div> <div style="font-size: 0.8em;">Entry points</div>					

Bottom up stakeholders

Name of stakeholder	Topic area/Sector	Organisation Legal status, city, size, scope of work, etc.	Interest to participate/business to participate	Important considerations e.g. conflicts of interest, ongoing initiatives to link to, etc.	Entry Point
<div style="font-size: 0.8em;">When is the end of the legislature?</div> <div style="font-size: 0.8em;">Ministry name</div> <div style="font-size: 0.8em;">Explanation of the mandate</div> <div style="font-size: 0.8em;">Bioeconomy Strategy</div> <div style="font-size: 0.8em;">Interest to participate/business to participate</div> <div style="font-size: 0.8em;">Important considerations</div> <div style="font-size: 0.8em;">Entry points</div>					

Top Down Stakeholders

Name of stakeholder	Topic area/Sector	Organisation Legal status, city, size, scope of work, etc.	Interest to participate/business to participate	Important considerations e.g. conflicts of interest, ongoing initiatives to link to, etc.	Entry Point
<div style="font-size: 0.8em;">When is the end of the legislature?</div> <div style="font-size: 0.8em;">Ministry name</div> <div style="font-size: 0.8em;">Explanation of the mandate</div> <div style="font-size: 0.8em;">Bioeconomy Strategy</div> <div style="font-size: 0.8em;">Interest to participate/business to participate</div> <div style="font-size: 0.8em;">Important considerations</div> <div style="font-size: 0.8em;">Entry points</div>					

Based on the stakeholder mapping results, a matrix with important and interested stakeholders can be created. This is vital to understanding which stakeholders are most important overall, who to approach first, and for which purpose.

4. Developing a business model for engaging stakeholders

Once the stakeholders are recognized and mapped, to help with planning the details of the actual hub format and operating approach but with the purpose to secure the long-term sustainability, the Business Model Canvas was prepared. This was used to help hub coordinators understand some of the incentives for stakeholders and how to attract them to get engaged, instead of seeing this involvement as another obligation. The Business Model Canvas (below) helps to answer a variety of questions, but in practice serves to reach out to the stakeholders, organize work and secure the resources necessary for stakeholder engagement within the hub.

The Business Model Canvas

1. Customer segments Who are your customers? To which stakeholder group and sector they belong? What are their demographic characteristics, e.g. gender, age, profession / position, salary? What are their main pain points and desires with regards to hub work? Describe your target audience in a couple of words.	2. Key propositions How will you make your customers' life happier? What is the main pain point or desire of your customer that you are helping solving? If you are taking your customer from A to B, what is B? (be aware, this is not necessarily what your customer needs, but what your customer wants!)	3a. Key activities What are the key activities, products or services you are going offer your customers to deliver your proposition (help them get to B)? Over which period of time, e.g. 6 months, 1 year?	4. Key partners What are your key partners to get competitive advantage?	5a. Cost Structure How much are you planning to spend on the product development and marketing for a certain period?
Customer relationships How will you attract customers to your hub? Will the hub always be open for new members or will you open registration opportunities every now and then? Will it be open for all registered people or will you run an application process? If so, how many member seats will you offer each time? How often will you interact with your future customers / community at large?		3b. Key resources What key steps do you need to take and key resources do you need to secure to make your idea work and move ahead with your customers?	5b. Revenue Streams How much are you planning to earn in a certain period, particularly after the project funding is over? Compare your costs and revenues.	Channels How are you going to reach your customers? Social media channels, emails, newsletters, news papers, printed media - what reaches best your customers?

5. Proposing the set of activities

CEE2ACT defined three hub workshops as core activities for reaching the desired project outcome, but activities can involve regular meetings, policy discussions, project proposal development, regular online calls, document reviews and other types of activities necessary to share knowledge and develop bioeconomy.

Recommendations for policy makers

Based on the CEE2ACT methodology, experience from contributing countries, and discussions among the project partners, several recommendations can be made for policy makers in the field of bioeconomy strategy development.

Develop new stakeholder engagement infrastructure for bioeconomy strategy development. Involving stakeholders in the decision-making process is important, but it is also key to creating a platform /form/group/hub for an open dialogue, which will help create and implement better policies and projects. Additionally, participation and collaboration within an organized stakeholder group give the feeling of ownership and motivation.

Secure and encourage collaboration and knowledge transfer between stakeholders. The long-term success in strategy development and implementation will only be secured if policymakers secure cross-sectoral cooperation of bio-based sectors and multi-stakeholder collaboration. It will sometimes be difficult to reconcile all interests and ideas, but open discussion enables the exchange of ideas and the resolution of resolving potential conflicts.

Recognize the needs of your stakeholders and incorporate them into the strategy. Knowing some national priorities is not sufficient to prepare the strategy. It is equally important to understand what different sectors expect from the bioeconomy and what real values they want to receive by engaging in strategy development. This can be done using various questionnaires, self-assessment tools, and other innovative e-tools.

Raise awareness and educate citizens. Use various innovative techniques and e-tools at your disposal to make citizens understand what bioeconomy is in everyday life. It is not enough to only organize public consultations but also events, online webinars, and citizen actions. This can also be done in cooperation with SMEs, NGOs, local and regional authorities.

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