

# Stakeholder and Citizen Participation in Bioeconomy Strategies

Guidelines for Practitioners



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## ABOUT BIOSTEP

BioSTEP ([www.bio-step.eu](http://www.bio-step.eu)) aims to engage citizens and various stakeholder groups in discussions about the future development of Europe's bioeconomy. Its objective is to increase the overall awareness and understanding of the bioeconomy as well as its consequences and benefits by considering citizens' needs and concerns. BioSTEP applies a three-tier approach to reach all relevant

actors in the bioeconomy domain by using tailored communication tools, such as workshops, conferences, exhibitions and debates on the bioeconomy. At regional level, BioSTEP applies and tests a 'living lab' approach to facilitate the involvement of public-private networks of stakeholders in bioeconomy-based innovation and business model development processes.

## ABOUT THIS DOCUMENT

This paper builds on the results of BioSTEP's in-depth analysis of participatory practices in six case studies of national and regional bioeconomy strategies. The case studies at national level focused on Finland and Germany, and the regional case

studies on the Bio-based Delta in the Netherlands, Saxony-Anhalt in Germany, Scotland in the United Kingdom, and the Veneto in Italy. The results of BioSTEP's activities can be accessed on [www.bio-step.eu/results](http://www.bio-step.eu/results).

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## EXECUTIVE SUMMARY

Building on six BioSTEP case studies<sup>1</sup> and a review of existing research on stakeholder and citizen engagement in the bioeconomy, this document sets out guidance for designing and undertaking broad participation in national and regional bioeconomy strategies.

Stakeholder and citizen participation in bioeconomy strategies can take the form of (i) education and information, (ii) dialogue and consultation or (iii) the co-production of knowledge.

Participation can aim to (i) achieve pragmatic goals e.g. creating new business or research opportunities, (ii) mobilise different viewpoints to inform and improve decision-making, and (iii) ensure that all people affected have the democratic right and ability to voice their views and interests.

Participatory practices face a range of challenges and obstacles, such as time and resource constraints, risks of slower or blocked decision-making, unclear benefits, and a lack of leadership.

Seven principles for good practice in stakeholder and citizen engagement in bioeconomy strategies include: (i) design and prepare engagement activities carefully, (ii) ensure transparency and respect for all viewpoints, (iii) ensure that engagement makes a difference, (iv) review engagement to improve practice, (v) tailor engagement to the national/regional bioeconomy, (vi) engage people on what matters to them, and (vii) learn from other sectors and countries.

Key methods for increasing stakeholder participation in bioeconomy strategies are: (i) bioeconomy councils and forums, with broad membership, (ii) consultations with stakeholders, (iii) hybrid organisations (such as clusters and innovation centres), (iv) business-led cooperation and engagement, and (v) policy funding for collaborative projects.

Important ways of enhancing the participation of individual citizens include: (i) communication and information campaigns, (ii) funding for education and training, (iii) consumer information and standards, and (iv) formal public consultation and dialogue.

The document includes case studies of participatory approaches, as well as further resources on the design and implementation of stakeholder and citizen participation.

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<sup>1</sup> Davies, S., L. Griestop, H. Vironen, J. Bachtler, V. Dozhdeva and R. Michie (2016) Case studies of national bioeconomy strategies in Finland and Germany, BioSTEP Deliverable 3.1; Charles, D., S. Davies, S. Miller, K. Clement, S. Kah, G. Overbeek, A. Hoes, M. Hasenheit, Z. Kiresiewa, C. Bianchini (2016) Case studies of regional bioeconomy strategies across Europe, BioSTEP Deliverable 3.2

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# 1 WHAT IS STAKEHOLDER AND CITIZEN PARTICIPATION?

There are three broad approaches to stakeholder and citizen participation<sup>2</sup>:

- » **Education**, where experts provide other individuals and organisations with information on the bioeconomy;
- » **Dialogue**, where some stakeholders consult and seek the views of other individuals and organisations;

- » **Co-production of knowledge**, based on cooperation between a range of experts, citizens and interest groups

The impact of participation is also shaped by factors such as: who participates, when engagement takes place, what issues are considered, and power dynamics between participants.

## 2 WHY ENGAGE WITH STAKEHOLDERS AND CITIZENS?

### 2.1 To achieve pragmatic goals

Engaging with other organisational stakeholders (particularly businesses, research bodies and policy organisations) can improve opportunities to achieve specific goals e.g. accessing materials and inputs, reaching potential customers and suppliers, finding new partners for R&D/innovation, and ensuring that public policies, legislation and investment address stakeholders' needs.

Engaging with individual citizens on the bioeconomy can bring additional benefits, including increasing awareness of bio-based products, leading to shifts in consumer behavior, addressing public concerns about bio-based activities at an earlier stage and improving the supply of skilled workers for the bioeconomy.

### 2.2 To inform decision-making

The bioeconomy can have systemic effects on supply chains, consumption, societal behaviour and decision-making systems. Broad-based engagement can improve information-sharing on the costs and benefits associated with shifts to a bio-based

economy, so that negative impacts can be mitigated and opportunities exploited. It can ensure that blind spots are addressed, a range of viewpoints are taken into account, and conflict on difficult questions can be resolved.

### 2.3 To ensure that people can voice their views

Enabling different people to voice their views and interests is also an important goal in its own right, and can help to facilitate the emergence of a new consensus on fundamental objectives

(e.g. the balance between economic growth and environmental sustainability) i.e. without predetermining the direction or content of this consensus.

<sup>2</sup> Ribeiro B. and Millar K. (2015) Public engagement in the bioeconomy: outlining an analytical framework for BioSTEP, BioSTEP Working Paper, November 2015

## 3 CHALLENGES TO PARTICIPATION

### 3.1 Obstacles to stakeholder participation

Engagement is not always high on stakeholders' lists of priorities e.g. because it may bring risks (e.g. slower or more complicated decision-making) or because stakeholders have limited resources and

may choose to focus on other issues. Alternatively, organisations may decide to engage only with existing partners or only where the practical benefits of engagement are clear.

### 3.2 Obstacles to citizen participation

Citizen engagement is often hindered by limited public knowledge about the bioeconomy, together with the complexity of bioeconomy themes. Moreover, strategy leaders often take an economic development perspective, and so prioritise business-oriented interventions, rather than citizen-oriented activities, especially where consumer-oriented markets are slow to develop.

Often, no organisation is charged with championing citizen engagement on the bioeconomy, and there is uncertainty as to how to engage with citizens in such a way that it is useful and meaningful. The extent of citizen participation on the bioeconomy is also shaped by national/regional institutions, democratic participatory traditions and the socio-cultural context.

## 4 PRINCIPLES OF ENGAGEMENT

We have identified seven principles, based on BioSTEP case study research and existing studies, which can help to frame participation strategies.

- » **Principle 1: Design and prepare engagement activities carefully**  
Good planning takes time. Key factors to be considered are: the timing and sequencing of engagement activities; what kinds of participatory actions are needed; how can a representative range of voices be included; and how engagement relates to the broader context.
- » **Principle 2: Emphasise transparency and respect for all viewpoints**  
Effective engagement depends on good communication, so that all participants have the information they need in order to contribute. The views of all participants must be respected, even if they differ from those of the organisers.
- » **Principle 3: Ensure that engagement makes a difference**  
Engagement must genuinely feed into decision-making processes and activities i.e. decision-makers must take account of participants' views. Engagement can also have wider impacts, if it enables participants to learn about the topic and about wider decision-making processes.
- » **Principle 4: Review and evaluate engagement**  
Organisers need to reflect on the participation process and outcomes and incorporate lessons into future work e.g. who has been reached, how effective were the methods used, and how can the outcomes be put into practice?
- » **Principle 5: Tailor engagement to the national/regional bioeconomy**  
The engagement methods must be adapted to suit the bioeconomy actors, sectors and

activities in the country or region in order to ensure that key stakeholders are involved, and that participation builds on existing frameworks/debates in the main bioeconomy sectors.

» **Principle 6: Listen and engage people on what matters to them**

Engagement is most effective when the organisers are not simply trying to communicate

their own message but are genuinely aiming to meet participants' interests and listen to their concerns over the longer term.

» **Principle 7: Learn from other sectors, regions and countries**

There is often scope to learn from engagement practices undertaken in fields outside the bioeconomy (e.g. urban planning, or R&D policy), or in other countries or regions.

## 5 EXAMPLES OF STAKEHOLDER ENGAGEMENT IN THE BIOECONOMY

### 5.1 Dialogue

Bioeconomy Councils, Panels, Forums or Working Groups play a key role in driving bioeconomy strategies and activities in countries such as Finland and Germany.

**Box 1: Finland's Bioeconomy Panel**

The Panel is chaired by the Minister of Economic Affairs and the Minister of Agriculture and the Environment. Public bodies represented include national ministries, agencies and institutes (e.g. in fields such as innovation, education, and natural resource management) and regional councils. Business and employee organisations include the national Confederation of Industries, various business sectoral associations, and trade union organisations. There are also representatives from the fields of research, innovation and education, and non-governmental organisations include the World Wildlife Fund (WWF), and the Association of Nature Conservation.

Policy strategies on the bioeconomy draw on online and roundtable consultations with businesses, researchers, NGOs and other stakeholders on strategy design and implementation. Industry bodies (such as the European Biofuels Technology Platform, the Bio-based Industries Consortium, and the Biotechnology Innovation Organisation) conduct surveys to consult members/stakeholders.

**Box 2: Saxony-Anhalt's Regional Innovation Strategy**

The Land (regional) government consulted widely on its smart specialisation strategy, which includes a focus on the bioeconomy, via: (i) interviews with universities, research institutes, businesses, technology transfer institutions, chambers of industry, and clusters; (ii) six roundtables with researchers; (iii) a stakeholder consultation; (iv) six stakeholder workshops; (v) a meeting with non-governmental organisations; (v) five thematic working groups including businesses, business associations, and intermediaries between science, policy and business; and presentation of the strategy to a large event involving business and civil society organisations.

## 5.2 Co-production of knowledge

A key development in the early stages of bioeconomy development in many regions is the creation of a hybrid organisation – e.g. an innovation centre or cluster body, involving businesses, research and policy-makers – to lead, encourage and organise cooperation and engagement.

### Box 3: Scotland's Industrial Biotechnology Innovation Centre (IBioIC)

IBioIC aims to bridge the gap between education and industry in order to accelerate development of commercially viable solutions for high-value manufacturing in chemistry-using and life science sectors. It is supported by over 25 companies and 13 universities. Its Governing Board includes members from industry and universities, and observers from 2 regional enterprise agencies. IBioIC supports stakeholders to build links; organises events; provides advice on management, finance, marketing and business strategies; funds apprenticeships and PhDs; finances projects; and offers open access facilities in the form of two operational equipment centres.

Business-oriented engagement in the bioeconomy can also be led by individual businesses or by sectoral/thematic business associations, industry groups or chambers.

### Box 4: Business-led engagement in the Veneto

Within the BioSTEP project, UCV and AGHETERA are engaging with businesses to develop a regional innovative bioeconomy network of enterprises aimed at strengthening bioeconomy supply chains; experimenting with new approaches; developing and sharing knowledge; communicating with producers and (potential) users of bioeconomy products; and cooperating with other stakeholders, including business associations, researchers and the regional government.

Governments in some countries provide funding for collaborative projects, typically involving businesses and university researchers, but sometimes also other stakeholders, including non-governmental and civil society organisations.

### Box 5: German public funding for projects with wide stakeholder engagement

The Federal Ministry of Education & Research funds a programme on Research for Sustainable Development (Forschung für Nachhaltige Entwicklung, FONA), focusing on the Green Economy, the City of the Future, and Energy Change. Outcomes are channelled into government decision-making. Projects are based on applied work, involving cooperation between different stakeholders (e.g. businesses and local authorities, or a number of NGOs).

## 6 EXAMPLES OF CITIZEN ENGAGEMENT IN THE BIOECONOMY

### 6.1 Information and education

Information campaigns can help to educate citizens about the bioeconomy. In Finland, for example, citizen participation is embedded in all policy areas (e.g. via [www.otakantaa.fi](http://www.otakantaa.fi)) but is seen as particularly important for the bioeconomy. Activities have included a website, social media, roadshows and fairs, print media and television.

As part of the BioSTEP project, an exhibition of bio-based products, 'Bioeconomy in daily life', has been developed by BIOCUM, and is being shown in Bulgaria, Italy and the UK. The exhibition includes a wide range of products, including dresses made from milk or coffee, car tyres from dandelions, and trainer soles from rice husks ([www.bio-step.eu/results/virtual-exhibition.html](http://www.bio-step.eu/results/virtual-exhibition.html)).



#### **Box 6: Creative activities in the Bio-based Delta (Netherlands)**

The municipality of Bergen op Zoom sees itself as a creative city and aims to attract innovative entrepreneurs in the bioeconomy via activities such as an exhibition of bio-based products, in cooperation with artists and designers, as part of Dutch design week. A pop-up store was set up for 3 months in 2016-17, to inform the public about bio-based products, materials and applications.

An important focus of many bioeconomy strategies is education and training, including development of new educational curricula; funding to improve the supply of skilled workers; and steps to raise awareness of job opportunities in the bioeconomy.

#### **Box 7: Bio Base Europe Training Center (Netherlands)**

The Bio Base Europe Training Center provides training, education, events and exhibitions aimed at informing students, businesses, public bodies and other organisations about the bioeconomy. It has

also developed bioeconomy modules for primary, secondary and tertiary education, particularly via the University of Applied Sciences and Hogeschool Zeeland, as well as via massive open on-line courses (MOOC) which in three years have reached 1600 students from 13 countries.

Governments and businesses target citizens-as-consumers, inform people about the benefits of bio-based products, and develop standards, trademarks and certification of bio-based products.

#### **Box 8: Consumer information and standards**

In the context of EU efforts to develop certification and standardisation of bio-based products ([www.biobasedeconomy.eu/standardisation](http://www.biobasedeconomy.eu/standardisation)), the Finnish and German governments are prioritizing support for standards, trademarks and business branding. Finland is committed to developing certification systems for bio-based products, while Germany is funding a project to develop an internationally comparable methodology for evaluating sustainability standards.

## **6.2 Public dialogue**

Formal public consultation processes relating to specific decisions on bioeconomy activities are found, for example, in the field of local/urban planning or scientific research. More open-ended forms of engagement aim to enable citizens to express their views, concerns and wishes on broad issues.

#### **Box 9: Public Dialogue in the UK**

The UK's Biotechnology and Biological Sciences Research Council (BBSRC) has set up a Bioenergy Public Dialogue to facilitate engagement between scientists and citizens, with outputs feeding into

BBSRC's strategy. Separately, the UK government commissioned a Citizen Jury to explore public perceptions of industrial biotechnology in response to concerns that public opinion could hinder adoption. The Jury took place in two stages and in two cities (London & Manchester). It included presentations, panel and group discussions, and individual exercises. It was supported by an advisory group of scientists, policy makers, industry and NGOs, which helped develop materials and responded to questions, ensuring that the Jury heard a variety of viewpoints.

## ANNEX 1: RESOURCES

### Principles of engagement

- » Involve / UK National Consumer Council (2008) *Deliberative Public Engagement: Nine Principles*, [www.involve.org.uk/wp-content/uploads/2011/03/Deliberative-public-engagement-nine-principles.pdf](http://www.involve.org.uk/wp-content/uploads/2011/03/Deliberative-public-engagement-nine-principles.pdf)
- » National Coalition for Dialogue and Deliberation / International Association for Public Participation (2009) *Core Principles for Public Engagement, Working Paper, United States*, [ncdd.org/rc/wp-content/uploads/2010/08/PEPfinal-expanded.pdf](http://ncdd.org/rc/wp-content/uploads/2010/08/PEPfinal-expanded.pdf)
- » J. Abelson & F. Gauvin (2006) *Assessing the Impacts of Public Participation: Concepts, Evidence & Policy Implications*, CPRN Research Report P06, [www.cprn.org/documents/42669\\_fr.pdf](http://www.cprn.org/documents/42669_fr.pdf)

### Designing participatory activities

- » European Commission (2015) *Better Regulation Toolbox*, Brussels, [ec.europa.eu/smart-regulation/guidelines/docs/br\\_toolbox\\_en.pdf](http://ec.europa.eu/smart-regulation/guidelines/docs/br_toolbox_en.pdf)
- » The Engage2020 Action Catalogue is an online decision-making tool for designing engagement activities: [actioncatalogue.eu](http://actioncatalogue.eu). A related description of engagement methods can be found here: [engage2020.eu/media/D3-2-Public-Engagement-Methods-and-Tools-3.pdf](http://engage2020.eu/media/D3-2-Public-Engagement-Methods-and-Tools-3.pdf)
- » The National Coordinating Centre for Public Engagement in the UK provides resources on engagement techniques: [www.publicengagement.ac.uk/do-it/techniquesapproaches](http://www.publicengagement.ac.uk/do-it/techniquesapproaches)
- » Community Places Scotland, UK (2014) *Community Planning Toolkit*, Inverness, [www.communityplanningtoolkit.org/sites/default/files/Engagement.pdf](http://www.communityplanningtoolkit.org/sites/default/files/Engagement.pdf)
- » German Federal Ministry of Education & Research (2016) *Call for Ideas: New Forms of Communication & Participation in the Bioeconomy* (Neue Formate der Kommunikation und Partizipation in der Bioökonomie), Bundesanzeiger, 20.09.2016, [www.bmbf.de/foerderungen/bekanntmachung-1249.html](http://www.bmbf.de/foerderungen/bekanntmachung-1249.html)

### Guidelines on engagement and consultation

- » European Commission (2015) *Better Regulation Guidelines*, Strasbourg 15.05.2015, SWD(2015) 111, [ec.europa.eu/smart-regulation/guidelines/docs/swd\\_br\\_guidelines\\_en.pdf](http://ec.europa.eu/smart-regulation/guidelines/docs/swd_br_guidelines_en.pdf)
- » Biotechnology & Biological Sciences Research Council (BBSRC) (2007) *Guidance on the Process of Consultation*, [www.bbsrc.ac.uk/documents/consultation-guidance-pdf](http://www.bbsrc.ac.uk/documents/consultation-guidance-pdf)



Shaping the bioeconomy together

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