



Boosting European Citizens' Knowledge and Awareness  
of Bio-Economy Research and Innovation

# D 1.3

## Compilation of stakeholder targeted materials

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Initial overview of dissemination material



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## Document Description

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## 1. Introduction

This deliverable seeks to create an overview of available material that can be used to inform stakeholders as described in BLOOMs objectives. The deliverable is a living document that will be extended and updated during the course of the BLOOM project

The document seeks to create an overview by shortly describing relevant stakeholders, the projects goal in targeting them, and what material would be suitable to do this. This results in a framework of communication material, which can be developed throughout the project until the final production of deliverable 1.4: Creation of stakeholder targeted material (final). This development consists of collaboration with work package 8 (Dissemination) and/or external experts on effective communication and influencing, to select the most effective way in which to impact stakeholders. Among others this will take place in the co-creation workshops. Additionally, the collection of material will be more specifically focussed on the needs of the BLOOM hubs.

## 2. Stakeholder audiences

This deliverable seeks to be comprehensive in its overview of stakeholder targeted material. All stakeholders can be allocated to one of the audiences described in this chapter. BLOOM specifically focusses on the first two categories presented. However, during collection of communication materials, the latter two categories often came up. To be complete, they were therefore included in the overview.

The reason to influence these stakeholders differ, and therefore the content they need to be shown differs too. The following subchapters seek to define the audience categories, and the reason to inform them.

### 2.1. Citizens (A1)

Citizens are the civilians that together form the general public. For the context of BLOOM this specifically means adults. They create the market of the bioeconomy and biobased economy by their role as consumers. Informing citizens, and shaping their acceptance of the bioeconomy, increasing their knowledge and awareness of bioeconomy products, helps to form the market by showing the consumers why the shift to bioeconomy is important and how it affects them.

Furthermore it is relevant to explain and showcase to citizens the options and possibilities that come with the development of the bioeconomy, not only the introduction of new crops, new bio-based products and new industries, but also new perspectives such as career opportunities.

Supplying citizens with information about the bioeconomy also prevents low-fact stakeholders influencing implementation of the bioeconomy in a negative way. This keeps discussion, especially on ethical topics, on a common fact-based ground, away from gut feeling. Effects of influencing citizens is expected to be seen in short term (several years).

## 2.2. Young citizens (A2)

In the context of BLOOM, the term young citizens refers to children and young adults that can be influenced through education. These citizens are still forming their place in society. By informing them about the possibilities and benefits that relate to the bioeconomy, they can be shaped to actively participate in the discussions and dialogues as citizens or professionals, and function as ambassadors for the bioeconomy to their fellow citizens. The effect of influencing young citizens can be seen on a longer time scale than adult citizens. By improving acceptance of the bioeconomy at young age, a societal change over generations can be achieved.

## 2.3. Industrial stakeholders (Agricultural/chemical/end products) (A3)

Industrial stakeholders are the supply chain that create the bioeconomy. It includes professional biomass production, processing and the production of intermediate and end products. Influencing of these stakeholders is mostly focussed on showing their possible impacts and presenting opportunities. Their participation is very important for the successful implementation of a bioeconomy, but not central to the BLOOM project.

## 2.4. Non-industrial stakeholders (Government, NGO's, CSO's, intermediate organizations) (A4)

This category gathers all organisations that influence governance of the bioeconomy: governmental departments, non-governmental organisations and lobbyists. These parties are critical in shaping the legislative and policy framework, and shape the conditions (networks, capacities, subsidies) in which a bioeconomy can thrive. This stakeholder group is not a priority in the BLOOM project.

# 3. Detail level

Communication materials can roughly be divided into five categories, going from abstract to specific information like a funnel. For each audience described in the previous chapter, different detail levels are desired. The following overview describes the abstraction levels, and how they are relevant to the audiences.

## 3.1. General overview (D1)

At the highest detail level is communication material that describes what the bioeconomy is. These overviews are usually generic, and an important frame for the (young) citizens to understand why we strive towards a bioeconomy, and how it benefits them on a societal level. This level is somewhat less important for the (non-) industrial stakeholder, as they are expected to understand the general concepts.

### 3.2. Technical (D2)

The second detail level describes the technical specifics of the bioeconomy. Understanding the different steps and relevant processes in the value chain: growing biomass, and / or collecting side streams, the industrial conversion processes and production of (intermediate) products, which the (young) citizen knows, but which they may not necessarily recognise as products from the bioeconomy. An overview of the supply chain creates insight into the general concepts of bioeconomy presented in 3.1.

### 3.3. Application (D3)

The third detail levels zooms in further on the choices that must be made in the bioeconomy, regarding what biomass to grow, what processes to use and how industries will utilise these resources in order to make sustainable bio-based products. It also indicates what is happening in the direct environment of the audiences, depending very much on the specific characteristics of places and regions (natural resources, knowledge and capacities, industries and investments), and the strategic choices being made by regional innovation networks (RIS3). This can be seen as application of the more descriptive materials in aforementioned detail level 3.2.

The applied knowledge is vital in participating in the ethical dilemmas that are an inherent part of the bioeconomy, such as the food versus fuel debate and the potential use of genetically modified organisms.

### 3.4. Impact (D4)

Once an overview of the bioeconomy and its dilemmas has been built, the citizen can be presented with the scope. This focuses on how much impact the bioeconomy has: what petrochemical and other products in which markets can be replaced, how much biomass would be needed, what CO<sub>2</sub> emission reduction or even sequestration can be reached, what would be the climate benefits, but also which new economies, new jobs, innovations and transitions are expected to occur. Quantitative information is very suitable for this detail level.

To understand this information, the material mentioned in 3.1-3.3 must be supplied first to the audiences.

### 3.5. Hub specific (D5)

Information presented under 3.1-3.4 is generic for the entire bioeconomy. To fully inform citizens of the impact that bioeconomy has on them, this information must be translated to a hub or regional specific context. This enables the citizen to relate to the bioeconomy and gain a deeper understanding.

## 4. Overview of stakeholder targeted material

A first list of stakeholder targeted material has been collected. Table 1 shows an overview of this material, divided into three categories: Film (F), written (W) and games (G). Links to the material are presented below the table. Most material available concerns the more abstract detail levels. Detail level 4, Impact, is currently underrepresented and will need to be further explored. On the level of hubs no dissemination material has yet been included; this will be done in close collaboration with the five BLOOM hubs. Only one “serious game” has been selected currently. If possible, more games will be added, as these tools are made to be easily understood by their audience. For both citizens and young citizens this is very suitable. In addition to the material defined below, festivals, workshops and road shows have been defined as exemplary platforms to interact with the target audiences. Specific material for such events is not included in this deliverable, but will be added in due course.

Table 1: Stakeholder targeted material for 4 audiences (1. Citizens, 2. Young citizens, 3. Industrial, 4. Non-industrial) on 5 detail levels (1. General, 2. Technical, 3. Application, 4. Impact, 5. Hub related)

| Detail level  | Audience       |                        |               |                   |
|---------------|----------------|------------------------|---------------|-------------------|
|               | 1<br>Citizens  | 2<br>Young<br>citizens | 3<br>Industry | 4<br>Non-industry |
| 1 General     | F1,2,3,6,7,8   | F1,3,6,7               | F3,5,8        | F3,5,6,8          |
|               | W1,2,3,5,6     | W3,6                   | W1,2,6,7      | W1,2,3,6,7        |
|               | G1             | G1                     |               |                   |
| 2 Technical   | F1,2,3,4,6,7,8 | F1,3,4,6,7             | F3,4,5,8      | F3,4,5,6,8        |
|               | W1,2,3,5,6,7   | W3,6                   | W1,2,6,7      | W1,2,3,6,7        |
|               | G1             | G1                     |               |                   |
| 3 Application | F3,4,6,8       | F3,4,6                 | F3,4,5,8      | F3,4,5,6,8        |
|               | W1,2,3,5,6,7   | W3,6                   | W1,2,4,6,7    | W1,2,3,6,7        |
|               | G1             | G1                     |               |                   |
| 4 Impact      | W1,7,8         |                        | W1,7          | W1,7              |
| 5 Hub related | W8             |                        |               |                   |

| Film | Producer      | Link  |
|------|---------------|---|
| 1    | EU Science    | <a href="https://www.youtube.com/watch?v=2xvXkOMRTs4">https://www.youtube.com/watch?v=2xvXkOMRTs4</a>           |
| 2    | US Energy     | <a href="https://www.youtube.com/watch?v=gqjmdWHzlhk">https://www.youtube.com/watch?v=gqjmdWHzlhk</a>           |
| 3    | WUR           | <a href="https://www.youtube.com/watch?v=6-nblFAPD2c">https://www.youtube.com/watch?v=6-nblFAPD2c</a>           |
| 4    | CEBB          | <a href="https://www.youtube.com/watch?v=_MSMl17oT18">https://www.youtube.com/watch?v=_MSMl17oT18</a>           |
| 5    | Biocluster DK | <a href="https://www.youtube.com/watch?v=_ciwoxFkwH8">https://www.youtube.com/watch?v=_ciwoxFkwH8</a>           |
| 6    | BioSTEP       | <a href="http://www.bio-step.eu/background/biostep-video/">http://www.bio-step.eu/background/biostep-video/</a> |
| 7    | BioWays       | <a href="http://www.bioways.eu">www.bioways.eu</a>  |
| 8    | North4Bio     | <a href="https://vimeo.com/186251953">https://vimeo.com/186251953</a>   |

| <i>Written</i> | <i>Producer</i>                | <i>Link</i>  |
|----------------|--------------------------------|--|
| 1              | Green Resources                | <a href="https://www.biobasedeconomy.nl/groene-grondstoffenreeks/">https://www.biobasedeconomy.nl/groene-grondstoffenreeks/</a> (Partly English)   |
| 2              | InnProBio                      | <a href="http://innprobio.innovation-procurement.org/bio-based-products-services/factsheets/">http://innprobio.innovation-procurement.org/bio-based-products-services/factsheets/</a>  |
| 3              | Danish Technological Institute | <a href="http://orbit.dtu.dk/files/140638164/Lange_L_Lindedam_J_2016_The_Fundamentals_Of_Bioeconomy_The_Biobased_Society..pdf">http://orbit.dtu.dk/files/140638164/Lange_L_Lindedam_J_2016_The_Fundamentals_Of_Bioeconomy_The_Biobased_Society..pdf</a> (translatable) |
| 4              | Pianoo                         | <a href="https://www.pianoo.nl/nl/document/9335/factsheet-biobased-inkopen-gebouwen-en-bouwmaterialen">https://www.pianoo.nl/nl/document/9335/factsheet-biobased-inkopen-gebouwen-en-bouwmaterialen</a> (NL)   |
| 5              | Bioökonomie                    | <a href="https://biooekonomie.de/biobasierte-stadt-o">https://biooekonomie.de/biobasierte-stadt-o</a> (DE)   |
| 6              | Bioways                        | <a href="http://www.bioways.eu/bio-learn/factsheets/">http://www.bioways.eu/bio-learn/factsheets/</a>  |
| 7              | European Bioplastics           | <a href="https://www.european-bioplastics.org/bioplastics/feedstock/">https://www.european-bioplastics.org/bioplastics/feedstock/</a>  |
| 8              | Metsä Fibre                    | <a href="https://www.metsafibre.com/en/about-us/Bioproduct-mill/Documents/Bioproduct%20mill%20brochure%20EN.pdf">https://www.metsafibre.com/en/about-us/Bioproduct-mill/Documents/Bioproduct%20mill%20brochure%20EN.pdf</a>  |
| <i>Games</i>   | <i>Producer</i>                | <i>Link</i>  |
| 1              | Bioways                        | <a href="http://www.bioways.eu/bio-learn/serious-games/">http://www.bioways.eu/bio-learn/serious-games/</a>  |

## 5. Further work

This document is a first version of the stakeholder targeted materials that will be delivered in month 35 of the BLOOM project. It is a living document that will be extended and updated during the course of the project. During the project, more material will be collected based on the feedback from the regional Hubs, partners. Targeted communication material will be produced during the co-creation workshops.