

AllThings.Bio PRO

D5.4 Report on public communication activities

WP5 – Communication, Dissemination and Engagement

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Allthings.bioPRO - Game changer for the bio-based economy
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Technical References

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¹ PU = Public

PP = Restricted to other programme participants (including the Commission Services)

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0 Summary

This report provides an overview of the communication, dissemination and monitoring activities up to M12 (August 2021), the materials and channels developed to communicate and disseminate the project as well as the analysis of the results obtained through such activities.

After the brief but crucial opening chapter on “**Communication and Dissemination**”, which explains the different but complementary roles of communication and dissemination activities, the report is divided into three main sections:

- **Communication**, which is mainly addressed to the public at large who is involved in the project through dedicated materials and channels, namely posters, website, social networks, news releases and articles.
- **Dissemination**, whose main targets are the experts and professional stakeholders. Here the materials, channels and the tone of voice are more technical, and the results are provided through brochures, videos, press releases, networking events, scientific publications etc.
- **Monitoring analysis**, which includes the analysis of the results received so far and the development of the related indices to measure the impact of publications, social media, websites and events.

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1 Communication, dissemination and monitoring

Allthings.bioPRO communication and dissemination (C&D) activities aim to increase awareness and acceptance of bio-based products among the population and in particular to support citizens' participation in the bioeconomy and its related policy agenda at different geographical levels.

- The **aim of communication activities** is to translate technical results into easy-to-understand language and, therefore, to inform the public at large (citizens, users, media) about how Allthings.bioPRO activities and topics are connected to their lives and will largely affect their future. Citizens are the main target group of the project and communication activities targeted to them have a high relevance in WP5. In other words, communication activities complement dissemination ones as they **add public value to the achievements of the project** by transforming the sometimes complex terminologies and results into key words and key messages linked to peoples' everyday life.
- The **aim of dissemination activities** is to disseminate the project results, mobilise stakeholders and establish deep ties with relevant platforms, networks, associations and other similar projects. The target of dissemination formats is the professional audience, the tone of voice is technical and formal, with accurate terminology and specific results and the tools and channels are specific for such audience. Here we mostly refer to economic players in the bioeconomy sector, research institutions, policy makers and bioeconomy networks (see D5.1, Table 1 for more insights on these targets).
- The aim of the **monitoring activity** is to measure the impacts generated through the communication, dissemination and engagement efforts done within the project and generated by its overall activities. Through such analysis we can monitor the awareness and the acceptance produced through the Allthings.bioPRO products developed and channels used (publications, social media, website, events etc.) anytime. The continuous monitoring process enables ICONS not only to monitor Allthings.bioPRO C&D impacts but also to take corrective actions to improve performance and maximise these impacts, whenever needed.

2 Communication and dissemination activities

The Allthings.bioPRO D5.1 *Communication, Engagement and Dissemination Plan* provides an overview of the different C&D activities and tools that are being generated in the duration of the project and are being delivered to different channels. Moreover, key messages have been developed according to the specific keywords and target audiences. These have been or will be used to formulate specific content for the following C&D channels and products.

Table 2.1 - Allthings.bioPRO Communication and Dissemination Channels and Products

Tool/Actions	Description
Website	The Allthings.bioPRO project website was built on the one of its forerunner BioCannDo, so the first six months of the project have been spent in adapting, revising and enhancing the previous project's inheritance. The portal is one of the most important tools of

	Allthings.bioPRO to outreach the public and to distribute its editorial contents to a wider audience.
Media multipliers	These external platforms republish the news and press releases, and call-to-action (CTA) stakeholder activities written by Allthings.bioPRO.
Social networks	These are used to engage actively with the online community represented by the different target audiences identified by the project i.e. Twitter, LinkedIn and Facebook. Content includes news related to the Allthings.bioPRO project; these are also used to invite online users to participate in a dialogue on the different topics/issues addressed by the project.
Networking and Clustering events	These come in the form of training sessions, workshops, exchanges, webinars, and events in general thus providing an avenue for the Allthings.bioPRO partners to engage with the project's target audience in person. Also, clustering with other projects addressing the same target group could lead to a much stronger impact on the public.
Communication kit: Flyer, poster, power point presentation and presentation video	The communication kit is a toolkit to support the exchange with partners when approaching stakeholders in specific events. The kit includes: <ul style="list-style-type: none"> - a flyer to raise awareness of the project, its objectives and main areas of activity; - a poster which is a synthesis of the key elements we want people to take in about Allthings.bioPRO; - a power point presentation which will help partners when asked to give a presentation of the project; - a presentation video, which is touchpoint between the project and its public, by providing basic information of the project at its early stage.
Factsheets	Allthings.bioPRO factsheets are the result of a joint work among BTG, FNR and ICONS, and the activity is included in WP2. While the first two partners are responsible for the writing of contents, ICONS takes care of the graphic design and the distribution of the factsheets online. Factsheets will focus on the products and application areas relevant for the different game missions.
Editorial production	In collaboration with WP2, WP5 is in charge of producing different editorial pieces and formats covering the four main areas of the project, such as: <ul style="list-style-type: none"> - Journalistic articles, written by professional journalists and aiming at featuring and analysing bioeconomy related topics; - Science quiz posts, aimed at triggering the reader's curiosity on the project's bioeconomy topics; - Problem solving posts – Designed to engage consumers by explaining them the impact bioeconomy and bio-based materials have on their everyday lives; - Video posts, to present bioeconomy related research in a stimulating and catchy manner, suitable to attract attention also from the non-experts; - Press releases, used to disseminate important results or advancement of the project, e.g. the release of the app and game; - Keyword Posts (Glossary), intended to intercept traffic on bioeconomy related topics originating from Google keyword searches and to make the comprehension of all above contents easy; - Podcast releases, that will cover topics like those of the journalistic posts but in a different format and therefore for a different audience.

Digital storytelling	Digital storytelling in the form of a Page Flow™ will be produced to present the lessons learned by the consortium in the context of the four themes of the project in the framework of the serious game.
Video production	The video production of the Allthings.bioPRO project will be intense and feature a number of different formats to be used for separate purposes and at separate times during the project (CTA, social, educational etc.).

Their results will be discussed in the succeeding chapter 2.1. Some items such as digital storytelling, science quiz and problem-solving posts, as well as most of the video production activities have yet to be developed as reported in D5.1 *Communication, Engagement and Dissemination Plan*. These are, therefore, not to be included in this deliverable that focusses entirely on the D&C activities that have taken place in the past months.

The communication impact of the said activities will be examined in chapter 3. These are based on the output data monitored regularly and will help us fine-tune the communication, the content of materials and the overall D&C strategy of the Allthings.bioPRO project.

2.1 Tools and channels

Allthings.bioPRO's results are being shared with the different target audiences using the project's communication and dissemination tools. This combination will ensure us to effectively reach out to our diverse set of the target audiences, in particular citizens.

2.1.1 Website

The website is the official communication and dissemination channel being used in the Allthings.bioPRO project. This online portal is being accessed by our community of professional stakeholders - policy makers, researchers, economic players and bioeconomy networks - and the general public.

As mentioned above, the Allthings.bioPRO website <https://www.allthings.bio/> was inherited by its forerunner project BioCannDo. The portal was revised, adapted and improved to respond to the new communication, engagement and dissemination objectives and themes of Allthings.bioPRO.

The project website was built for the following purposes:

- To share materials produced by Allthings.bioPRO, like factsheets, journalistic articles or videos;
- To publish news about the project;
- To cross-link it with external platforms, relevant initiatives and sister projects;
- To provide links to and practical information about the activities promoted by the project, like the stakeholder engagement.

It should be noted that registered users' contact details are treated as fully confidential, in compliance with the General Data Protection Regulation – Regulation (EU) 2016/679 (GDPR). ICONS acts as the Data Controller to ensure that the personal data information of the stakeholders and users registered in the online platform/website will remain strictly confidential. Moreover, they will ensure followers' contact details are used uniquely for the dissemination of the Allthings.bioPRO project and no other purpose and grant the users' right to access the information they provided upon online registration with the possibility to opt out from the project contact list at all times.

The website was developed under WordPress, which enables easy content management during the project and its completion. Furthermore, it was designed based on the visual identity of the project and has a layout that allows users to easily navigate through the different content made available on the website. A thorough elaboration on the website development has been discussed in D5.3 *Project Website and brandbook*. The website's performance is being monitored via Google Analytics. Listed below are the web statistics from September 2020 (start of the Allthings.bioPRO project) until August 2021.

The figures below show the audience of the Allthings.bioPRO website and their behaviour and interaction with the web page. Generally, data available in Figure 2.1 are positive: considering the short time (less than one year) the numbers of sessions¹ (31,069) and page views² (41,999) are impressive. This is also thanks to the good heritage of BioCannDo. Indeed, the Allthings.bioPRO website is one of the main online platforms on bioeconomy and it's promoted by all search engine. However, for the sake of clarity, we have to highlight that the graphic presents two declines, both in correspondence of annual holidays, and respectively between mid-December 2020 and mid-January 2021 for Christmas holidays and between June and August for summer holidays.

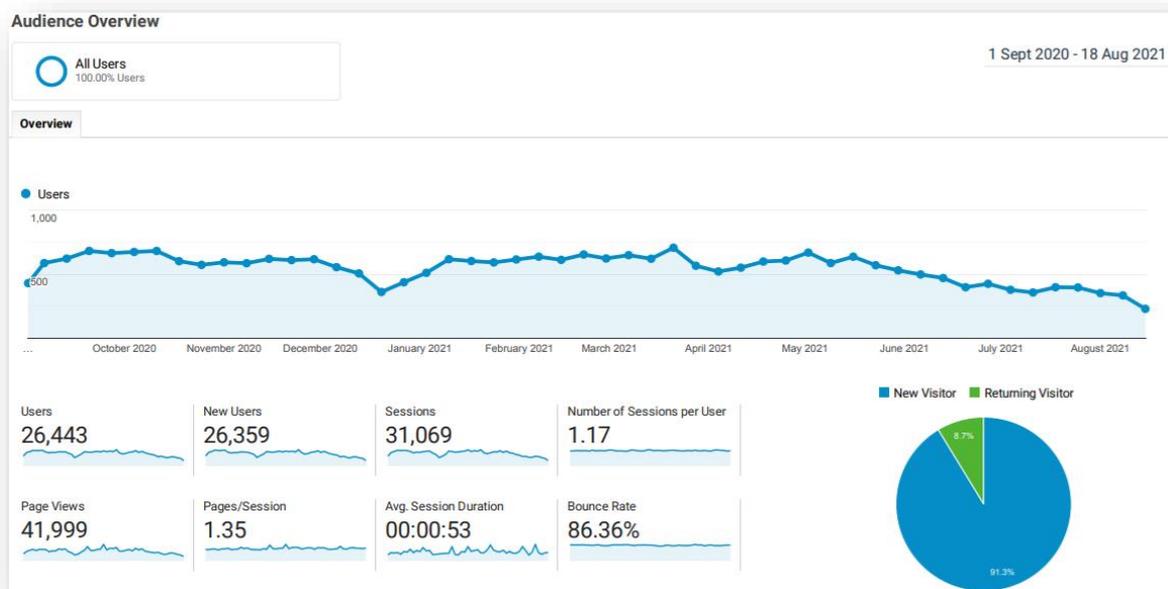


Figure 2.1 - Number of users accessing the Allthings.bioPRO website from September 2020 until July 2021 and further analytics data (source: Google Analytics)

Figure 2.2 presents the geographic location of the audience and highlights that the project attracts a worldwide audience, and its content is considered interesting by a global community. This gives more power to the project, which can engage with a vast range of audience and has a high exploitation, replication and uptake potential.

¹ Sessions represent a single visit to your website. Whether a User lands on one of your web pages and leaves a few seconds later, or spends an hour reading every blog post on your site, it still counts as a single Session. If that User leaves and then comes back later, it would not count as a new User (see above), but it would count as a new Session.

² Page views represent each individual time a page on your website is loaded by a User. A single Session can include many Page views, if a User navigates to any other sub-pages on your website without leaving.

Country	Users	% Users
1.  United States	5,378	20.32%
2.  United Kingdom	3,676	13.89%
3.  India	2,736	10.34%
4.  Australia	1,140	4.31%
5.  Philippines	991	3.74%
6.  Germany	988	3.73%
7.  Netherlands	853	3.22%
8.  Indonesia	845	3.19%
9.  Canada	844	3.19%
10.  Italy	546	2.06%

Figure 2.2 - Geographic location of Allthings.bioPRO website audience

Many of these users access the project website via Organic Search³ (78.7%) followed by Direct⁴ (18.8%). These show that users are aware of the Allthings.bioPRO website's existence. Other pathways that users may choose to access the Allthings.bioPRO website are through social media platforms and referrals, namely by clicking links pointing to Allthings.bioPRO website on external platforms (social networks, multipliers, magazines etc.). In short, the website can be accessed by whichever URL associated to the Allthings.bioPRO project once posted in a social media channel, that is, Twitter, Facebook, and LinkedIn, or in other websites, or in e-mails.

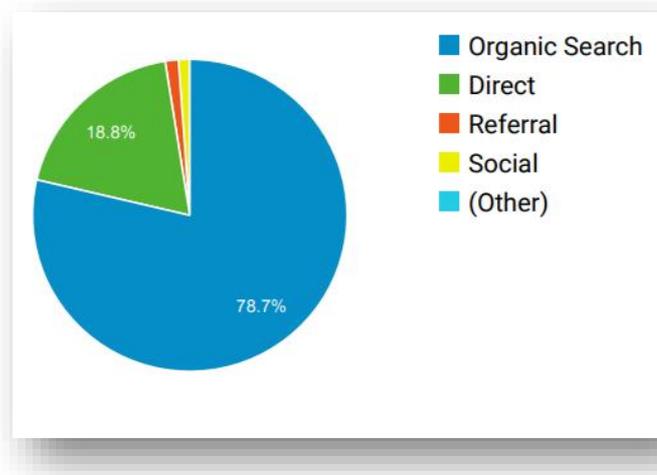


Figure 2.3 - Percentage distribution of the Allthings.bioPRO website's acquisition channels from September 2020 until August 2021 (source: Google Analytics)

Regardless of the different pathways, users do not always need to enter the Allthings.bioPRO website through its primary page. Listed below in figure 2.4 are the top "Landing Pages" ranked according to the overall Unique Sessions. Most of the top pages are specific news, which probably raised the attention of the audience. Line 3 (with no string after the /) is the homepage. The grey area refers to the rest of all pages which are not present in the top 10.

³ Organic Traffic are views from search engine results that are earned, not paid.

⁴ Direct traffic is defined as visits with no referring website. When a visitor follows a link from one website to another, the site of origin is considered the referrer. These sites can be search engines, social media, blogs, or other websites that have links to other websites. Direct traffic categorises visits that do not come from a referring URL.

Such analysis helps us to learn which are the top topics that generate larger interest and engagement. Therefore, we can both, increase the focus on such subjects and change the communication on those themes that are key to the project but did not get the necessary attention.

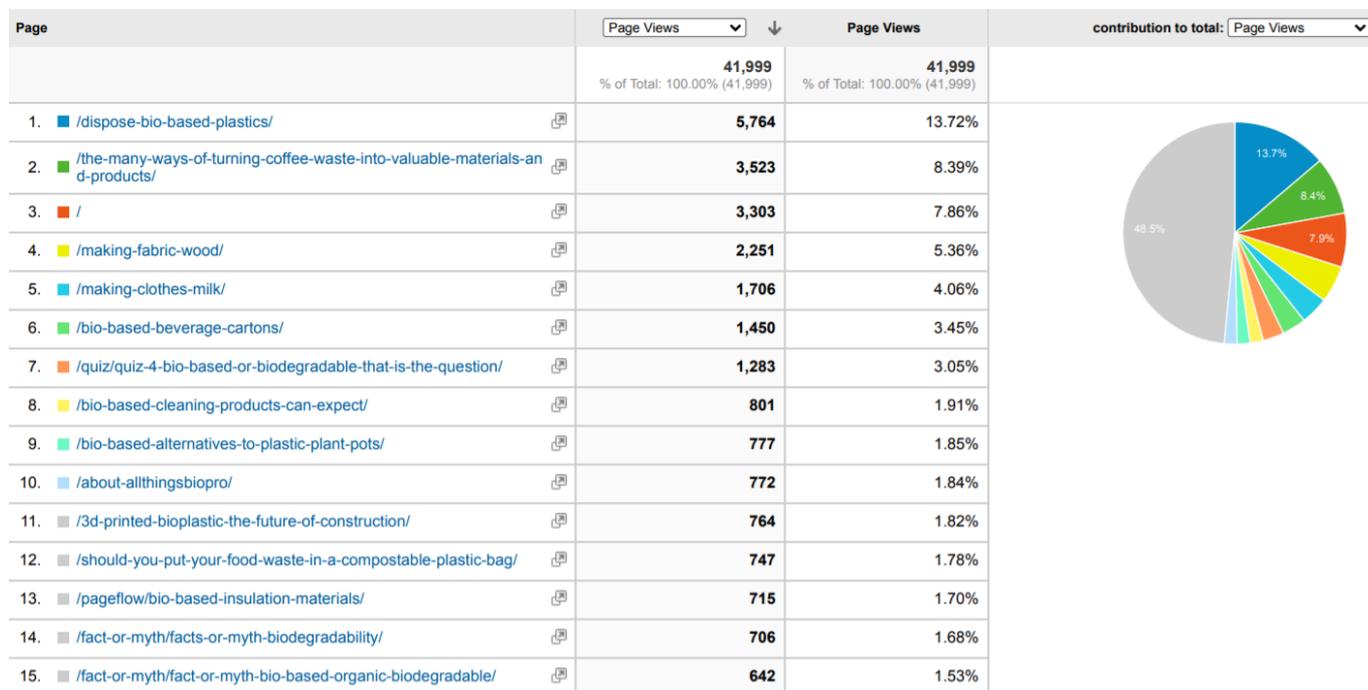


Figure 2.4 - Ranking of landing pages according to the percentage of page views (source: Google Analytics)

All in all, these data show that the website's purposes are well met as the number of users is very high⁵, and they pay avid attention to the Allthings.bioPRO project and its results displayed in the projects' news and in the different sections of the website.

Accountability

The Allthings.bioPRO project website has been inherited by the BioCannDo project. This has been developed and looked after by ICONS, with contents provided by FNR, BTG and other partners. Input and cooperation from partners will be encouraged in providing updates.

To comply with General Data Protection Regulation – Regulation (EU) 2016/679 (GDPR), private data will remain confidential as ICONS will act as the Data Controller and be responsible for treating all the personal data provided by the registered users upon online registration.

2.1.2 Media Multipliers

External media multipliers are being used to disseminate contents of general interest produced by the Allthings.bioPRO project.

⁵ With reference to Table 2.7, page 24, Part B of the DoA (*KPIs in Communication and Dissemination*), the web platform was expected to reach $\geq 10,000$ views during the project. The number of page views reached during the first year only, is over 4 times higher than the expectations.

These multipliers are external platforms that have syndication agreements with ICONS. The multipliers often used are Cordis Wire, AlphaGalileo and Phys.org. Additional channels that give focus on the topics covered by Allthings.bioPRO are being included in the project distribution list.

Journalistic articles and press releases on Allthings.bioPRO are the products being distributed. Once these are approved by the mentioned news multipliers, these will be published as news in the respective multipliers.

Moreover, the Allthings.bioPRO consortium is encouraged to republish the project's press and news releases via their own networks and websites. They will have to notify ICONS once they re-distribute the said materials.

All these will be monitored thoroughly to quantify the outreach of the project's communication materials. By doing so, we will be able to understand the dynamics/interactions of the users with respect to the news and press releases and journalistic articles. The list of publications released by the project and its partners is available in chapter 2.1.7.2.

Accountability

ICONS is responsible for distributing the news and press releases and journalistic articles to external news multipliers.

The consortium partners are encouraged to re-distribute these materials within their networks.

Both actions will be monitored to measure the outreach of Allthings.bioPRO communication materials accordingly.

2.1.3 Social networks

The Allthings.bioPRO project has a strong online presence via social media. This is being used to promote the project, its objectives, activities, and results and, in particular, to create a strong community and to connect with it. The Allthings.bioPRO's presence in social media is expected to widen its level of outreach as its communication and dissemination activities are to be shared across the different social media platforms.

The approach to social media of the Allthings.bioPRO project is being fully described in the Social Media Strategy document, attached to D5.1 *Communication, Engagement and Dissemination Plan* as Annex I. The necessity of a dedicated document stresses the importance of such channels for the C&D activity of the project.

The **Twitter, Facebook and YouTube** social media channels of Allthings.bioPRO were inherited by the BioCannDo project and therefore, they were already active when Allthings.bioPRO started. Conversely, in March 2021, the project opened its first **LinkedIn** company page to cover the theme of Jobs and Careers connected to the bioeconomy.

As of August 2021, the social media community of Allthings.bioPRO includes a wide range of people, covering all the targets identified by the project. The details about the number of followers, their outreach and engagement levels are included in the monitoring chapter 3.

On Twitter, Facebook and LinkedIn, regular posts are being made to keep its online community interested in the ongoing developments within the project. For all social networks, cards are being created to diversify the content being shared from the project's accounts. Several types of cards have been designed to respond to the different targets and topics of Allthings.bioPRO:

- **Thematic cards** (figure 2.5) use key messages and short facts to inform the audience about the main topics of the project.
- **World days cards** (figure 2.6) are designed on the occasion of world days whose topics are in line with those of Allthings.bioPRO. The scope is to highlight the link between the project and the main world challenges.
- **Glossary cards** (figure 2.7) turn the glossary terms included in the Glossary section of the Allthings.bioPRO website (about 50 bioeconomy keywords so far) into graphics. They are intended to intercept traffic on bioeconomy related topics originating from Google keyword searches and to make the comprehension of Allthings.bioPRO contents easy. They will explain bioeconomy related keywords and/or technical contents.



Figure 2.5 - Thematic cards



Figure 2.6 - World days cards



Figure 2.7 - Glossary cards

Accountability	<p>ICONS is responsible for the main part of the social media activities, like posting on social media, following existing ones and monitoring outreach.</p> <p>The consortium partners are encouraged to contribute by joining the community of Allthings.bioPRO Twitter, LinkedIn and Facebook followers. They can repost the project's content from their organisations' channels and tag @AllThings_Bio.</p>
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2.1.4 Networking and clustering events

Allthings.bioPRO partners participate in a number of networking and clustering events not only to transfer knowledge about the project but also to raise its visibility within the stakeholder community. In fact, partners involved in WP5, especially T5.3, participate in conferences, fairs and events in general and carry out clustering activities with similar EU funded projects and initiatives.

The objectives of networking and clustering events are to promote the project results, sharing outcomes and gathering feedbacks from external experts. So far, the Allthings.bioPRO project has participated in 11

networking events and 3 clustering events with other EU-funded bio-based projects, mostly online due to the pandemic situation. In the networking events, partners presented the Allthings.bioPRO project to a local or European audience, addressing small audiences (approximately a total of 300 people), but very relevant for the activities of the project. Some pieces of data, especially regarding the attendance rate, still need to be collected.

During the clustering events, the Allthings.bioPRO partners, besides presenting the project, contributed to the discussion and the brainstorming, as well as exploring opportunities of future collaboration. Indeed, cooperation with sister projects and other initiatives within the Allthings.bioPRO project's research domain will help it generate a stronger impact among the community of professional stakeholders. The strongest partnership that has been established is with the Transition2Bio project – a communication and education EU-funded project promoting the transition towards a more sustainable Europe. The project is featured in the fellow projects' section of the Allthings.bioPRO website and the cooperation with it will increase at a later stage (e.g. joint activities such as webinars, events, cross-mention on social media etc.).

Table 2.2 – Networking and clustering events attended or organised by project partners

No	Partner	Event title	Date	Attendance	Webpage	Notes
1	FNR	Global Bioeconomy Summit 2020	16-20/11/2020			
2	FNR	EuBioNet Workshop	11/11/2020	50	https://eubionet.eu/eubionet-yearly-partners-workshop-bioeconomy-communication-and-stakeholders-engagement-in-times-of-covid-19/	Improve the quality and impact of communication and stakeholders engagement activities in the light of COVID-19. Exchange with other projects and actors in the field of bioeconomy.
3	NMF	Co-creation workshop #2	13/09/2021	20		Further develop the three remaining game ideas.
4	BSS	AlpBioEco webinar	11/02/2021	40	https://www.alpine-space.eu/projects/alpbiocoo/en/news-events/alpbiocoo-final-public-conference	
5	VA	Remue-ménages - Mode du futur : entre durabilité et connectivité	01/03/2021	20	https://institutfrancais-suede.com/events/remue-menages-mode-du-futur-entre-durabilite-et-connectivite/	
6	BSS	Information event about bioeconomy projects in the Municipality of Sigmaringen (Germany)	16/03/2021		no webpage regarding event (yet), event will be announced on social media accounts of the municipality as well as in the local newspapers	The event aims at informing interested citizens of Sigmaringen and around about bioeconomy and ongoing bioeconomy projects in Sigmaringen and answering their questions (AlpBioEco, GoDanuBio, Allthings.bioPRO)
7		European Research & Innovation Days	23-24/06/2021	30 participants - 35,000 registrants	https://research-innovation-days.ec.europa.eu/	European Commission's annual flagship R&I event, bringing together policymakers, researchers, entrepreneurs and the public to debate and shape the

						future of research and innovation in Europe and beyond.
8	FNR	EUBCE	26-29/04/2021			Presentation of Allthings.bioPRO at the FNR stand; project flyer and presentation video were displayed digitally.
9	FNR	BIC Webinar	17/05/2021	50		How to stimulate market uptake and consumer acceptance of bio-based products? Introduce the concept and planned outcomes of Allthings.bioPRO to BIC members.
10	FFG	GROW expo	30/03-30/07			Expo about bio-materials in fashion, explaining the different materials and their origins
11	FFG	GROW expo part 2	15/10-15/03/21			Follow-up expo where the materials have been transformed to fashion items by several designers
12	FNR, BTG, BSS, ICONS, NG, PI, IBS	Transition2 BIO networking call	11/05/2021	20	-	The two projects presented their structure, objectives and main activities. A common ground was established for future collaboration.
13	FNR	EuBioNet Capacity building working group	21/05/2021	20		Define the objectives, expected outcomes and next steps for the EuBioNet working group in Bioeconomy Education
14	FNR	BIOVOICE S Final Event	22/04/2021	30		Final project results were presented to the audience. The developed kids book on bioeconomy was launched and presented. Within the EuBioNet, project representatives brainstormed about how to maximise the EuBioNet's impact and scale up its effectiveness in enhancing collaboration among partners and beyond.

Accountability

ICONS is responsible for keeping track of all relevant events in which Allthings.bioPRO partners participate. Also, ICONS together with BTG will get in contact with sister projects to strengthen collaborations and to organise cluster activities.

All partners will attend and/or organise events to promote the project at the different geographical levels.

2.1.5 Communication kit

The project communication starter kit comes with a set of materials that will support the dissemination and communication of Allthings.bioPRO until the end of the project. It is made of four graphic materials. For an exhaustive explanation, please refer to D5.2 *Project Communication Starter Kit*.

2.1.5.1 Flyer

The flyer is meant to raise awareness for the project, its objectives and main areas of activity.

It is used to support the dissemination and distributed at events attended by consortium members. Likewise, it is part of the communication package dispensed at the co-creation workshops and focus groups, which are organised in the project. Local versions in German, Estonian, Italian, Dutch and Swedish have been produced to raise awareness and facilitate communication and exchange with local stakeholders. The flyer is downloadable in a digital version from the website and has been disseminated on social networks.



Figure 2.8 - Allthings.bioPRO flyer

Accountability

The Allthings.bioPRO flyer in English has been made available in M6, while the local versions were made available in M10.

ICONS is in charge of the development and the design of the flyers. This was done in cooperation with FNR, who approved the texts and the flyer.

Local partners assisted in translating the text provided into their local languages.

2.1.5.2 Poster

The Allthings.bioPRO poster is a synthesis of the key elements we want people to take in about our project: objectives, main activities, bioeconomy sectors covered, consortium partnerships and contact details.

It can be displayed at the Allthings.bioPRO during physical events either attended or organised by project representatives. Two hard copies of the poster were printed, and additional printed copies will be agreed with the consortium based on the specific needs that might arise. The open file was shared with the local partners, to allow them to translate texts into local languages (German, Estonian, Italian, Dutch and Swedish) if necessary.

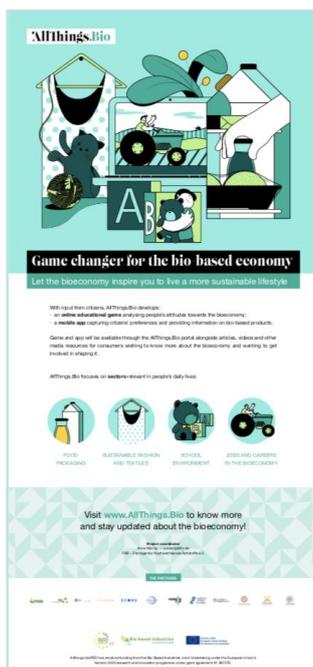


Figure 2.9 - Allthings.bioPRO poster

Accountability

The Allthings.bioPRO poster in English has been made available in M6, while the local versions were made available in M9.

ICONS is in charge of the development and the design of the poster. This was done in cooperation with FNR, who approved the texts and the poster.

Local partners assisted in translating the text provided into their local languages.

2.1.5.3 Power point presentation

The Power Point presentation is a ready-to-use presentation, which comes handy when partners are asked to present the project during events both online and offline.

Likewise, focus group and co-creation workshop organisers had the possibility to use it to introduce the project to the participants. The presentation is very agile and streamlined.

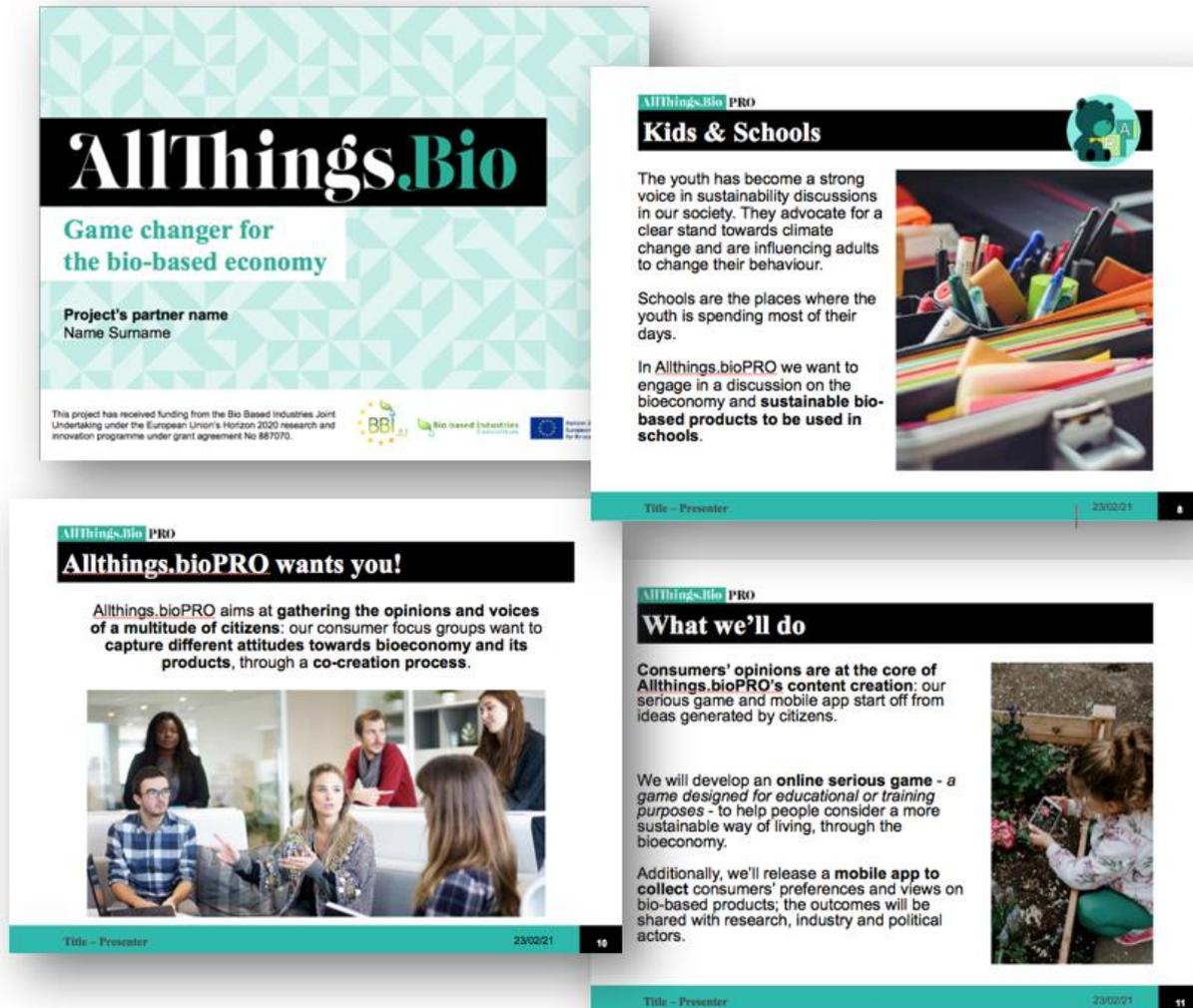


Figure 2.10 - The Allthings.bioPRO Power Point presentation

Accountability

The power point presentation of Allthings.bioPRO was designed by ICONS with the collaboration of FNR and BTG. Descriptions and information were firstly taken from the DoA and then reworked by partners using a less technical language and tone of voice. The aim is to explain the project in an easy-to-understand way with simple language and addressing the audience to raise their interest around the project's topics.

2.1.5.4 Presentation video

The Allthings.bioPRO video is a touchpoint between the project and its audience. It provides a glimpse into the project at an early stage, when most operational activities are still to be implemented. It is meant to raise awareness and get viewers engaged in our initiative.

The video is targeted to citizens with limited knowledge of the bioeconomy; therefore, the tone of voice is informal, and the language is clear and straightforward. To make it relevant to a laymen audience, a very

practical angle has been taken, by starting off from how bio-based products can become part of our lives, to terminate with a call to action. The video is embedded in the homepage of the project website and is available on the project's YouTube account. It has also been disseminated on Allthings.bioPRO social networks.

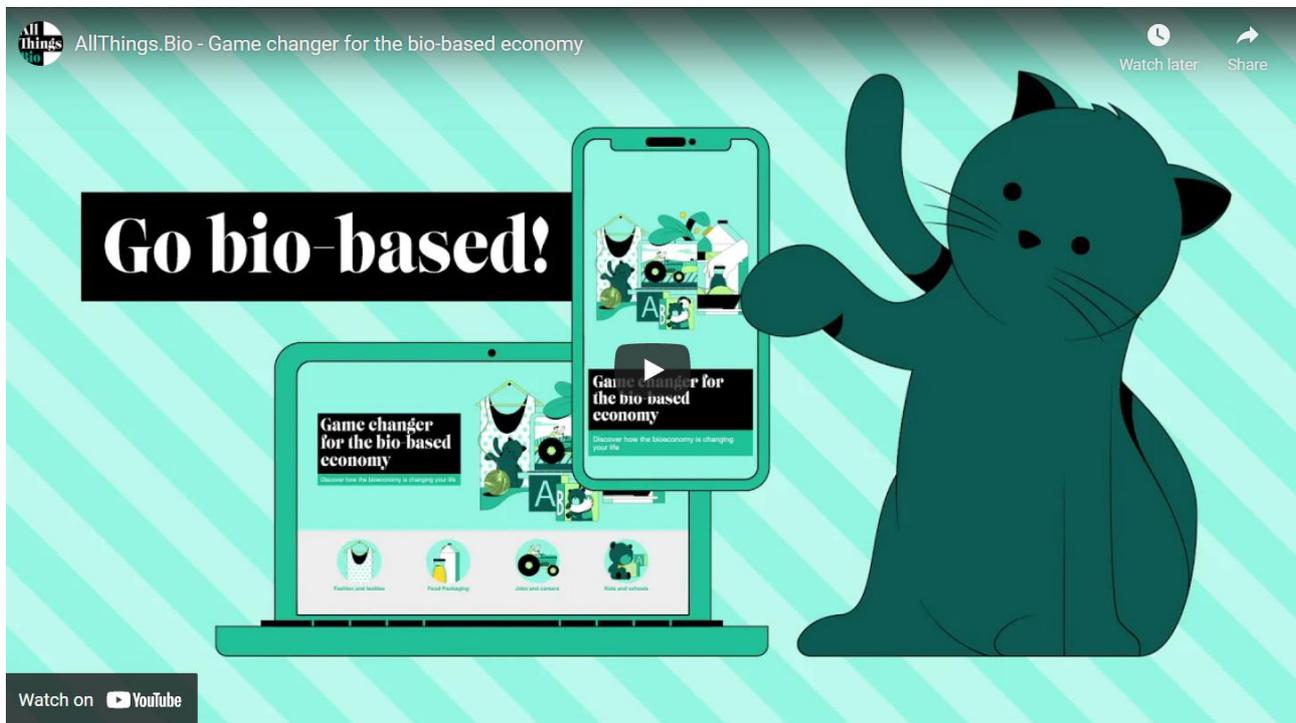


Figure 2.11 - Allthings.bioPRO video

Accountability

The video is the result of a joint effort among BTG, BSS, FNR, ICONS and the WP3 partners.

ICONS is in charge of the final script, the storyboard and the graphic production of the video. BTG, BSS and FNR were involved in the whole process to provide their feedback to write the story, revise the script and approve the final storyboard. WP3 regional partners as well contributed to the approval of the storyboard and provided the translation of the script.

All partners contribute to disseminate the video.

2.1.6 Factsheets

The production of factsheets is intended to cover the four mission themes of Allthings.bioPRO and to reach the different audiences involved. Therefore, one factsheet per mission has been produced, plus an extra factsheet “Introduction on Bioeconomy”.

The factsheets were part of the WP2 activity. ICONS took care of the visual editing of the factsheets, after the factsheet team had completed the raw content. Factsheets were branded following the guidelines in the project brand book (described in detail in D5.3, published in February 2021). All factsheets were initially prepared in English and then translated into local languages by local partners. ICONS, with some support of FNR, BSS, BTG and/or selected regional partners, took care of producing visual attractive translated factsheets. After their

release, ICONS actively promoted the factsheets in the social media used by the project (LinkedIn, Twitter and Facebook) and upload them in the [insights section](#) of the Allthings.bioPRO website, where they can be easily downloaded by everyone. The promotion online and on social networks will continue along the project life. The full presentation of factsheet is available in D2.2.

Accountability

The content of the factsheet was developed by BTG and FNR, while ICONS took care of the visual editing of both, the English and local versions, the dissemination on social networks and the upload of the materials on the project website.

Local partners provided translations into their national languages.

2.1.7 Editorial production

The editorial production is essential to reach the different targets of Allthings.bioPRO and to distribute the contents at different geographical levels.

The production includes several formats and materials. Up to M12 some news, articles and glossary posts have been produced. The rest of the products (science quiz and problem-solving posts, video posts, podcasts) will be produced later on. Most of these products will be intended for the Allthings.bioPRO social networks and therefore included in that section as well.

2.1.7.1 *Journalistic articles*

The articles and interviews of Allthings.bioPRO are written by professional journalists and aim at featuring and analysing bioeconomy related topics.

The articles and interviews are independent and produced by ICONS' team of journalists. They involve partners and key experts and explore the topics related to the project and connect with the daily issues and situations that people meet in their everyday life. The connection with global current topics makes the articles more interesting for a wide audience and therefore potentially increase their engagement power.

Up to M12, one article has been published and distributed by ICONS. It focuses on food packaging, which is one of the Allthings.bioPRO themes, and involves one partner responsible for this activity in the project (NMF), as well as an external expert in the field.

The article was firstly published on the project website and on youris.com, which is ICONS' media platform. Secondly it was disseminated on the project social networks and distributed to the multipliers to increase the views and the engagement (see chapter 5 – Monitoring for more insights). Finally, partners were informed and encouraged to interact with the article and to share it through their channels.

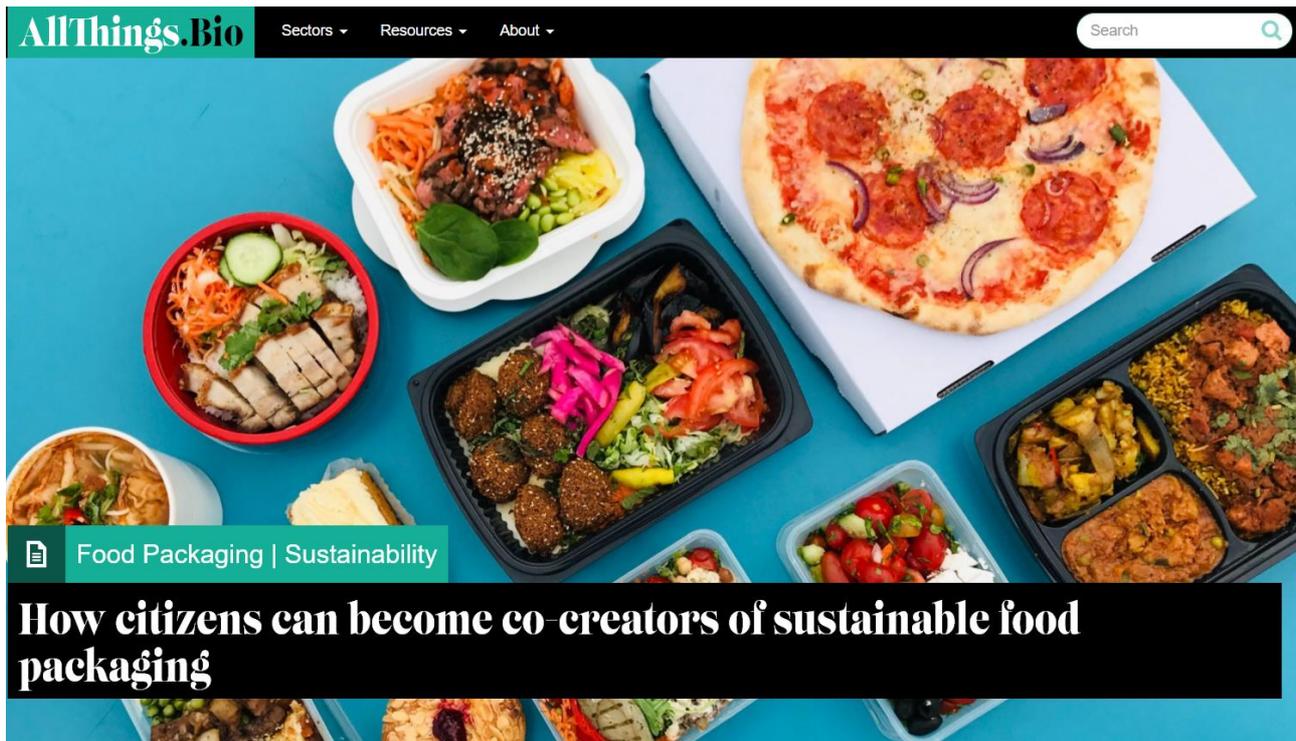


Figure 2.12 - Preview of the Allthings.bioPRO article on the project website

Accountability

ICONS is in charge to produce the independent articles. The authors are part of the ICONS team of journalists, and they are led by ICONS' editorial manager. Depending on the topic, project partners as well as external experts will be contacted by the journalists who will include their experience or point of view on the subject, relevant quotes or a dedicated interview.

The articles are produced, disseminated online (website and social media) and distributed to multipliers by ICONS. Once published, partners are immediately informed of the new article and invited to disseminate it on their platforms and through their communities.

2.1.7.2 Press and news releases

Allthings.bioPRO press and news releases are written to address the different issues and aspects of the project. These will draw the attention of stakeholders and the general public. Press releases are used to communicate the project's key milestones and achievements, which are worth reading by a selected audience such as the key target audiences of Allthings.bioPRO. News releases, on the other hand, have an informal structure of posts and are easy to read by the public.

Press releases and news releases differ according to the flexibility of the themes they cover. While press releases highlight the key milestones of the project, news releases go beyond that. Press and news releases, generally, are written by ICONS in cooperation with different partners, mainly FNR and BTG. Once ready, they are sent to the project partners for them to upload the news on their website and distribute them through their channels. Generally, press and news releases are not published on the Allthings.bioPRO website, which is primarily dedicated to articles with a strong focus on tangible bio-based topics, rather than on news about

project meetings, events or general progresses and information about the project. However, once sent to partners, the press and news releases are distributed by ICONS across the different external multipliers in order to get a large audience and to be monitored by ICONS' tools.

Up until M12, Allthings.bioPRO has produced and distributed 3 news releases and 5 press releases. The full list is available in the table below.

Table 2.3 - Press and news releases produced by Allthings.bioPRO

No	Partner	Publication Date	Type	Title	URL associated to the specified Press/News Release
1	ICONS	21/09/2020	PR	Allthings.bioPRO kicked off virtually	https://cordis.europa.eu/article/id/422313-21-september-2020-allthings-biopro-kicked-off-virtually
2	PI	30/11/2020	PR	Allthings.bioPRO - citizen input in bioeconomy through innovative tools & engagement	www.prospex-institute.org/allthings-biopro
3	FNR	15/03/2021	NR	Bioeconomy? Easy as can be with AllThings.Bio	https://cordis.europa.eu/article/id/429438-bioeconomy-easy-as-can-be-with-allthings-bio
		18/03/2021			https://international.fnr.de/service/news/archive/archive/bioeconomy-easy-as-can-be-with-allthingsbio
		08/04/2021			https://www.eubce.com/bioeconomy-easy-as-can-be-with-allthings-bio/
4	ICONS	19/04/2021	PR	A brand-new set of factsheets to learn more about the bioeconomy	https://cordis.europa.eu/article/id/429768-a-brand-new-set-of-factsheets-to-learn-more-about-the-bioeconomy/de
5	FNR	04/03/2021	NR	Project presentation video release	https://international.fnr.de/service/news/archive/archive/allthingsbiopro-project-video-released
6	FNR	22/03/2021	PR	Bioökonomie? So einfach wie nie mit AllThings.Bio	https://news.fnr.de/fnr-pressemitteilung/biooekonomie-so-einfach-wie-nie-mit-allthingsbio
7	FNR	03/05/2021	PR	Bioökonomie im Alltag	https://www.fnr.de/presse/pressemitteilungen/archiv/archiv-nachricht/biooekonomie-im-alltag
8	NMF	23/07/2021	NR	Hoe burgers duurzame voedselverpakkingen kunnen helpen vormgeven	https://www.natuurenmilieufederaties.nl/nieuws/hoe-burgers-duurzame-voedselverpakkingen-kunnen-helpen-vormgeven/
					https://www.natuurenmilieuoverijssel.nl/nieuws/hoe-burgers-duurzame-voedselverpakkingen-kunnen-helpen-vormgeven/

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As mentioned earlier, these have been distributed to external media channels mentioned in chapter 2.1.2. This is done to raise the visibility of the project's concrete actions through take up, shares, and re-publication of some of these contents.

Further press and news releases featuring the project, its progresses and achievements are expected in the next months. For instance, we can anticipate that in September 2021 BSS will publish a press release to inform local citizens and BSS' network about the procedure and results of the co-creation phase (Task 3.2) and to give an outlook for the co-design phase. The press release will be published on BSS website and partner websites.

Accountability

ICONS in cooperation with BTG and FNR, oversees the production of press releases and news releases. The responsibility to distribute news to external multipliers lies with ICONS only.

All the members of the Allthings.bioPRO consortium are fully aware of interesting aspects related to the project and will liaise with ICONS by providing necessary information to prepare the contents of the press and news releases; ICONS will draft them and take care of their distribution. Once they are ready, the other members of the consortium will be encouraged to further distribute them through their own portals, newsletters or other appropriate channels.

Local partners are also encouraged to produce news in their own language, in order to address their local audience and raise their interest around the project.

2.1.8 Video production

The video production of the Allthings.bioPRO project will be intense and features a number of different formats to be used for separate purposes and at separate times during the project (Call-To-Action, social, educational etc.).

All videos will be produced following ICONS procedures and best practices. Therefore, the communication objectives of each video type will be evaluated, scripts and storyboards will be produced in close collaboration with the most involved partners to make sure that the graphic assets of the project are fully exploited and considered.

The presentation video was already presented, as part of the Communication starter kit. The rest of the video production includes⁶:

- 1 video, which will be used to explain the co-creation process with aim and methods;
- 4 clips for social media, for Call-To-Action (CTA) to play the game; one clip for each of the 4 game missions will be produced;
- 4 educational videos, presenting sustainable behaviour practices and focussing on the impact that actions have on the environment,
- 12 videos for the game, to be embedded in it and to make the game experience more engaging.

2.1.8.1 Video on co-creation process

The first video to be produced is the one to promote the co-creation process, its aim and methods. It will target citizens and will challenge their participation in the missions. The video will be in English, with subtitles in local languages in order to be used by regional partners during their local activities and workshops. It will include animations and will be in line with the graphic identity used for the presentation video.

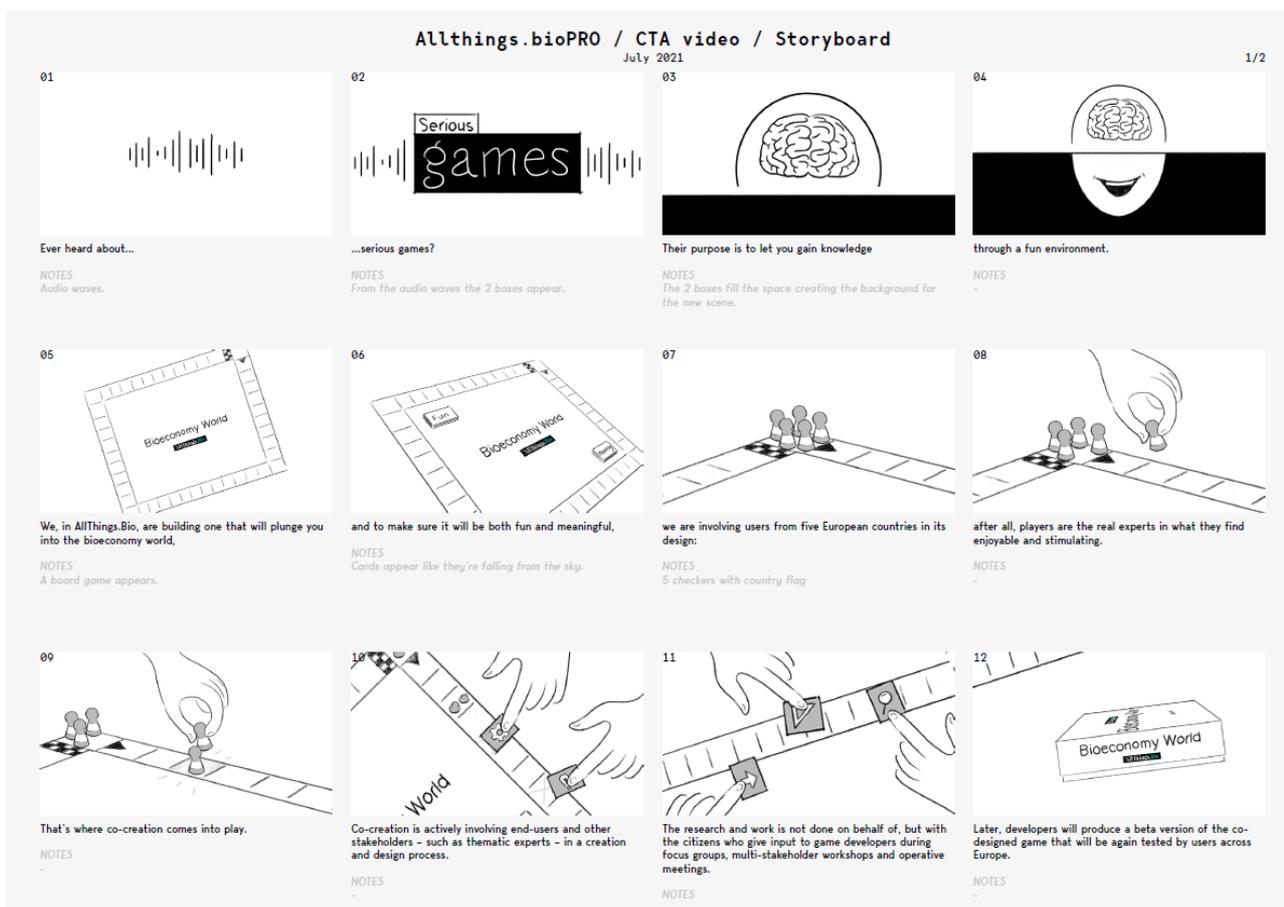
The production process started in M9 with ICONS presenting the general concept proposal and the tentative timeline to the involved partners, in particular to FNR, BTG and BSS. The timeline was approved end of May and the months of June and July were dedicated to the draft and the final approval of the script and the storyboard, which also involved feedback of local partners to align the production to their needs. August was dedicated to the production of the video in draft mode and the revision from partners. The finalisation and the delivery of the video are expected by the end of September 2021.

Table 2.4 - Script for the video on co-creation process

Script	Section	Reading time	Mood
<p>Ever heard about serious games? Their purpose is to let you gain knowledge through a fun environment.</p> <p>In AllThings.Bio, we are building one that will plunge you into the bioeconomy world.</p> <p>And to make sure it will be both fun and meaningful, we are involving users from five European countries in its design: after all, players are the real experts in what they find enjoyable and stimulating.</p>	Intro	0:25	Engaging - fun
<p>That's where co-creation comes into play.</p> <p>Co-creation is actively involving end-users and other stakeholders – such as thematic experts – in a creation and design process. The research and work not done on behalf of, but with the citizens who give input to game developers during focus groups, multi-stakeholder workshops and operative meetings.</p>	Co-creation and co-design	0:31	Explanatory

⁶ The video production has slightly changed during the project. Partners decided to change the scope of the CTA video and turn it into a video dedicated to the co-creation process. The change was approved by the project officer. The CTA was transferred to the 4 clips for social media, to dedicate them to encourage users to play the game.

<p>Later in AllThings.Bio, developers will produce a beta version of the co-designed game that will be again tested by users across Europe.</p>			
<p>The AllThings.Bio online serious game will help citizens consider a more sustainable way of living thanks to the use of bio-based products.</p> <p>The game will be divided into four thematic areas: fashion and textiles, food packaging, jobs and careers and tools for kids and schools.</p> <p>Each thematic area will be developed starting from the citizens' insights, which will provide a comprehensive concept, including desired game elements and specifications.</p>	<p>WP3 overview and expected results</p>	<p>0:27</p>	<p>A focus on a concrete application</p>
<p>Want to get involved in the co-design process and help shape a more sustainable world? Visit www.AllThings.Bio and contact us to know more.</p>	<p>CTA</p>	<p>0:10</p>	
<p>-</p>	<p>Official info</p>	<p>0:05</p>	<p>-</p>



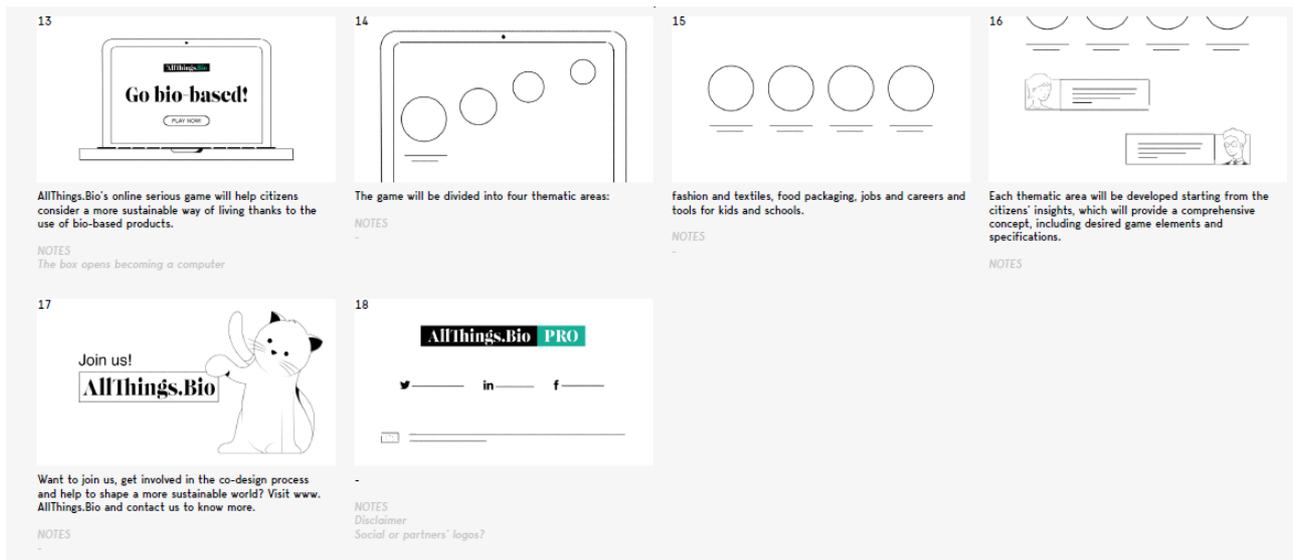


Figure 2.13 - Draft storyboard of the video on co-creation process

Accountability

The video is the result of a joint effort among BTG, BSS, FNR and ICONS.

ICONS is in charge of the final script, the storyboard and the production of the video. BTG, BSS and FNR were involved in the whole process to provide their feedback to write the story, revise the script and approve the final storyboard. Regional partners as well contributed to the approval of the storyboard.

The video in English will be produced by ICONS, while the translations for the subtitles will be provided by local partners.

The video will be largely disseminated online by ICONS and will be used by regional partners during their local activities and workshops. Further, the video can be used when presenting the project at conferences, fairs or other events.

3 Monitoring: outreach and engagement indicators

The impact of any communication and engagement action made by the Allthings.bioPRO project is being measured all throughout the project duration. This is being done by monitoring and studying the level of engagement and outreach of specified D&C products with respect to their target audiences.

3.1 Outreach and engagement indicators

The Allthings.bioPRO project can measure the effectiveness of its communication and engagement strategy by regularly monitoring its communication activities. This allows the project to fine-tune its strategy to further improve its performance, if needed.

ICONS guarantees a solid measurement of impacts based on a consolidated monitoring methodology, which is focused on the distribution of contents, across all channels. Different indicators have been identified; these can be aggregated or singled-out in a flexible way to analyse each component and its determinants. These represent the performance metrics of the Allthings.bioPRO project and have the following characteristics:

- **Measurable:** these can be represented numerically and analysed over time to identify trends, best practices, and pitfalls.
- **Easy to understand** and to be used by project partners: to ensure exploitation of the resulting analysis.
- **Repeatable:** they can be used and collected in a consistent way along project's execution.
- **Available:** sources are always accessible and available.
- **Timely:** they are made available every time a new communication or engagement effort is undertaken.
- **Reliable:** they are drawn from trusted sources in the online analytics world.
- **Insightful:** they provide knowledge around the effectiveness of the communication and engagement efforts.

Quantitative indicators are drawn from the monitoring of websites and social media accounts, according to three different approaches:

- **Direct monitoring, by retrieving data on the web traffic (and views)** for the Allthings.bioPRO project's news items and journalistic materials from the www.youris.com portal, managed by ICONS, and platforms working in syndication with ICONS. Youris.com is an independent non-profit media agency that has produced articles and journalistic videos, news releases and interviews for more than 15 years and is considered a major source of information by international media and journalists.
- **Direct monitoring of social media accounts** managed by the project and the [youris.com](http://www.youris.com) social media accounts (YouTube, Facebook and Twitter) through social media analytics.
- **Indirect monitoring**, by identifying the referrals made on Allthings.bioPRO communication materials by other online and social web resources. A more sophisticated analysis of online users is made possible by using dedicated state-of-the-art software tools such as Nuvi®, a real-time social intelligence software used by ICONS.

The indicators used to measure the impacts of the Allthings.bioPRO communication and dissemination activities are presented in the following subchapters.

3.1.1 Outreach indicators

Outreach indicators, in general, measure the visibility of the Allthings.bioPRO project in all forms. Apart from the channels it is a part of, that is, social media, website, we can also look at the outreach level of its publications and other activities such as webinars, workshops, and so on.

Publications' outreach indicators assess the audience size of the Allthings.bioPRO project's content published online. These include the press and news releases, as well as the journalistic articles that will be posted in the project website and by other multipliers.

Table 3.1 provides a list of Allthings.bioPRO publications' outreach indicators and the tools used to collect the data.

Table 3.1 - Allthings.bioPRO Publications' Outreach Indicators

Channels	Outreach indicators of Allthings.bioPRO publications	Tools
Website	Total visits on Allthings.bioPRO website	Google Analytics
	Unique visitors on Allthings.bioPRO website	
	Total visits on youris.com	
	Unique visitors on youris.com	
Social media	Twitter impressions on @AllThings_Bio	Twitter Analytics
	Twitter impressions on @YourIS_com	
	Visualisations on LinkedIn	LinkedIn Statistics
Multipliers	Impressions on multipliers (AlphaGalileo, Cordis Wire, Phys.org, etc.)	Provided directly by the multipliers or, in a minor number of cases, estimates based on a solid number of parameters leveraging time series and historical data

In Table 3.1, the following definitions apply:

- **Visits, impressions, visualisations:** number of times content has been seen online (different platforms use different terms to describe the same action).
- **Visitors, viewers:** number of people who got in contact with the content online.

Considering all the information stated above, the total outreach of publications is represented by the overall number of visits, impressions and visualisations recorded for each publication via the respective channels: youris.com, project website, social media channels, and information multipliers. This will be used to measure the Publications Engagement Index (see subchapter 3.2.1).

Data recorded from the project website's and social media accounts' analytics tools can go beyond the publications. This will be used to evaluate the channels' effectiveness (see subchapters 3.2.2 and 3.2.3).

Last but not the least, outreach on events, such as webinars can be measured based on the number of visualisations based on the press release and announcement of the event in the following channels: project website and multipliers. Provided the webinar is organised via one of the dedicated tools, that is, GoToWebinar, the outreach level may be accounted for using the number of attempted registrations made in the webinar's registration page.

3.1.2 Engagement indicators

Engagement indicators allow us to measure the active engagement between the Allthings.bioPRO project's overall communication products and activities and their targets.

Publications' engagement metrics tell us the level of engagement stakeholders have with the Allthings.bioPRO communication materials made available on the project website, social media, and media multipliers. Table 3.2 shows the Allthings.bioPRO publications engagement indicators and the tools used to collect the data.

Table 3.2 - Allthings.bioPRO Publications Engagement Indicators

Channels	Engagement indicators of Allthings.bioPRO publications	Tools
youris.com Website	Facebook Likes and Social Shares on Youris.com	youris.com social widget
Social media	Twitter engagements (including Clicks, Retweets, Replies, Follows and Likes)	Twitter Analytics
	LinkedIn Likes, Clicks, Comments, and Shares	LinkedIn Statistics
	Total Mentions (tracked via hashtags)	NUVI®
Multipliers	Multipliers' engagement metrics (ScienceX social shares and comments, AlphaGalileo Asset Hits)	Provided directly by the multipliers
Other	Other/local uptakes	Communicated by project partners to ICONS

Total mentions reported in Nuvi®, a real-time social monitoring platform used by ICONS, represent the number of times any of the keywords related to the news item or article (corresponding to title, subtitle, first sentence, URL or tweet) are being fished out on the web pages and the social media it monitors (Twitter, WordPress, Google+, Blogs, News, RSS, Tumblr, Automattic, Reddit, VK, Facebook, YouTube).

Alphagalileo asset hits represent the number of times a publication has been downloaded from Alphagalileo. Other/local uptakes are communicated directly to ICONS by project partners and might include the translation of a publication in a local language, the reference to the project in a local newspaper, etc. Data represent local engagement with the content delivered by the Allthings.bioPRO project at an EU level.

Considering all the mentioned indicators, the total engagement of publications is represented by the overall number of interactions in relation to the content of each publication for the following channels: youris.com (number of Facebook likes and social shares on youris.com), social media (number of likes, shares, tweets, retweets, replies, follows, and comments on Allthings.bioPRO social media), NUVI (total mentions), multipliers (number of ScienceX social shares and comments and number of Alphagalileo asset hits), and other/local uptakes.

Overall, engagement levels of the different channels, that is, websites, social media, as well as activities organised by the Allthings.bioPRO project, that is, webinars can be measured by the number of interactions made by the users with the respective platforms. This can be done using the different analytics tool of the respective channels.

3.2 Measuring the Effectiveness of Engagement

The level of outreach and engagement is insufficient for us to assess the evolution of acceptance towards the innovation of a project's content. These would need to be put in a broader context to make all the data comparable based on a unique measurement metric.

For one, outreach indicators provide only a partial overview of the project's communication effectiveness; these provide a preview of the community's size and not its interest level. This can be tackled as we put engagement indicators into the picture; these give a more powerful gauge in describing the interest and overall impacts on a community.

Nonetheless, they should be read in conjunction with outreach to draw relevant conclusions on engagement. To this aim, a composite indicator is needed.

ICONS studied a series of indices able to quantify the interest of a community in specific content. With specific reference to contents distribution, the following indices are to be accounted for:

- **PEI:** Publication Engagement Index
- **WEI:** Website Engagement Index
- **SEI:** Social Engagement Index

3.2.1 The Publication Engagement Index (PEI)

The Public Engagement Index (PEI) lets ICONS gauge, in a quantitative way, the actual engagement of people with the publications provided by the Allthings.bioPRO project via the following channels: websites (project website and youris.com), social media, and media multipliers.

The index is expressed as a percentage, similarly to how penetration rates are usually reported in market analysis reports, and can be calculated at different levels:

- By publication
- By publication type (article, news release, press release, video, etc.)

Given that only one article has been published so far and the main part of the activity will take place later on during the project, the data used to measure the PEI right now are based mostly on the press and news releases mentioned in subchapter 2.1.7.2 Table 2.3. The data, therefore, excludes the possibility of recording information via the youris.com channels (which caters solely to the publication of journalistic articles).

The Communication Effectiveness Quadrant based on bubble charts lets us investigate the overall performance of the publications. Figure 3.1 provides a graphical representation of how the Allthings.bioPRO original publications performed until August 2021. For easy reference, the bubbles' labels, outreach and engagement details of each publication are indicated in Table 3.3.

The figure is expected to change over time, as the Communication Effectiveness Quadrant is a dynamic representation of the editorial production recorded by far. The x- and y-axes represent the outreach and engagement level of a publication. The bubble sizes give the PEI. The bubble size is larger if the level of engagement of a specific publication outweighs its level of outreach. The axes (x & y) crosses at the average of the project, which is the baseline that form these four quadrants: this is the reason why there will always be some publications listed below the average and in the "neutral" quadrant. This was indicated based on average outreach (2,366) and engagement (75). The average change progressively as long as the project progresses.

Allthings.bioPRO editorial products that were published in recent months still have insufficient data. It is thus too early to jump into conclusions on the effectiveness of these materials.

The four quadrants indicate the following efficiency levels:

- a) **Engaging:** Located on the top-left part of the quadrant, publications in this category have an outreach below the average level and engagement above the average level. This shows that the publications reached a limited audience compared to the average yet engaged with them very effectively.
- b) **Effective:** Located on the top-right part of the quadrant, publications in this category have outreach and engagement levels above the average. This indicates that publications can reach a larger audience (compared to the baseline) and engage with them.
- c) **Neutral:** Located on the bottom-left part of the quadrant, publications in this category are either at par or below the average level of outreach and engagement. This means that publications are insufficiently effective in reaching out to the public and engaging with them (in comparison to the average).
- d) **Reaching:** Located on the bottom-right part of the quadrant, publications in this category have an outreach level above the average yet have an engagement level that failed to surpass the average. This shows us that publications were able to reach a large audience yet are not particularly engaging.

Table 3.3 provides the whole insights of the press and news releases produced and published by Allthings.bioPRO up to August 2021. Despite the single data and the related bubble letter, the table also shows the total data of outreach and engagement as well as the total PEI. Indeed, by accounting all the PEIs of these communication products, the total PEI of Allthings.bioPRO publications is 3.2%, which reaches 9,464 views with 301 interactions (share, like, comments etc.).⁷

Figure 3.1 is meant to be a tool that will help us identify the most effective publications in terms of content, style, the channels used, and the format types, that is, articles, press and news releases. In addition, this data will give us an idea on the type of editorial content that stakeholders or users, in general, are attracted to. This will help us identify the key actions we will work on to improve the effectiveness of the Allthings.bioPRO project's publications, thus, letting them shift towards the "effective" quadrant.

⁷ PEI, as well as the other indices that contribute to generate the Community Engagement Index (CEI) of the project, has been developed by ICONS, therefore the methodology for its calculation is confidential and cannot be included in a public deliverable. To understand the positiveness of every index, ICONS develops one benchmark per project area. As for the bioeconomy area the benchmark of the PEI is 2.3%. So far, Allthings.bioPRO's PEI (3.2%) is largely above the benchmark, meaning the project is progressing very well compared to the average projects of the same area. Needless to say that the higher is the PEI the higher is the engagement generated by the project. The same is true for all the indices developed by ICONS (SEI, WEI etc.)

Table 3.3 – Outreach, engagement and PEI data per each publication

Publication date	Type	Title	Bubble	Outreach	Engagement	PEI	Publication effectiveness
26/02/2021	Video	AllThings.Bio - Game changer for the bio-based economy	A	1.735	48	2,8%	NEUTRAL
15/03/2021	Press release	Bioeconomy? Easy as can be with AllThings.Bio	B	2.753	81	2,9%	EFFECTIVE
19/04/2021	Press release	A brand new set of factsheets to learn more about the bioeconomy	C	2.364	84	3,6%	ENGAGING
14/07/2021	Article	How citizens can become co-creators of sustainable food packaging	D	2.612	88	3,4%	EFFECTIVE
TOTAL				9.464	301	3,2%	
AVERAGE				2.366	75	3,2%	

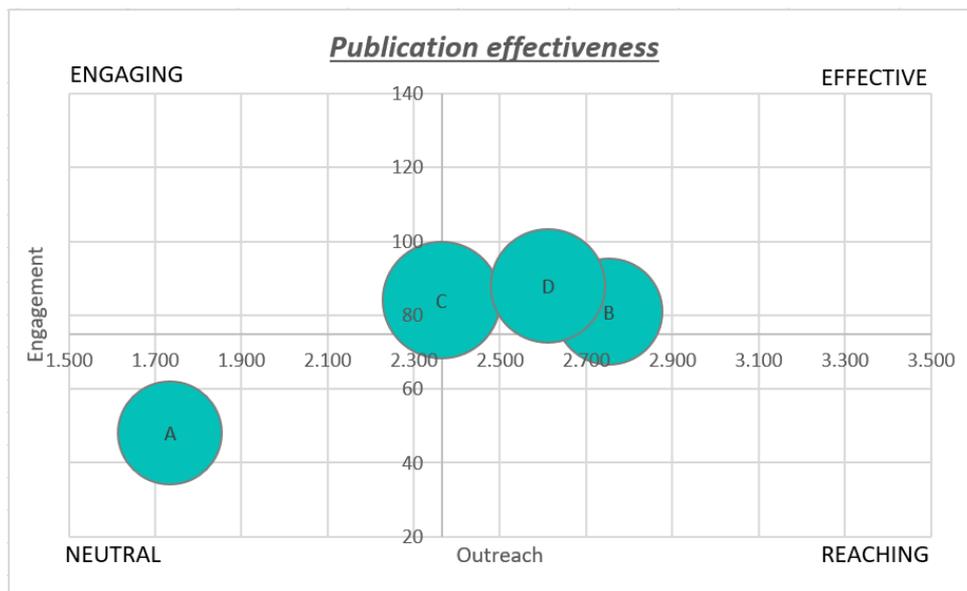


Figure 3.1 - The Communication Effectiveness Quadrant indicating Allthings.bioPRO publications that were Engaging (Top-Left), Effective (Top-Right), Neutral (Bottom-Left) and Reaching (Bottom-Right)

3.2.2 The Website Engagement Index (WEI)

The Website Engagement Index (WEI) quantifies the engagement of Allthings.bioPRO website visitors with the contents published in its pages. Outreach is measured based on the total number of page views, while its engagement is gauged as the amount of time spent on these pages.

The following table highlights the impacts of Allthings.bioPRO website from its start (September 2020) until August 2021. The site had 25,561 users, more than 30,100 sessions and 40,680 page views. The number of returning visitors should not be read as lack of interest in the content, as:

- The website is complemented by further channels, as shown above (socials, multipliers, youris.com). Therefore, the contents of Allthings.bioPRO are accessible on several platforms, which decrease the use of the website but increase the presence and spread of the project.
- More importantly, with users relying more and more on different devices and connecting from different IPs, the system is not fully able to register real returning users.

Table 3.4 - Website outreach: web statistics from September 2020 until August 2021

Google Analytics Indicators	Allthings.bioPRO website
Users	25.561
Returning visitors	2.429
Sessions	30.106
Average session	00:00:53
Page views	40.680

The engagement index is expressed in percentage with a natural range between 0 to 100. Its value tends to be higher in comparison to PEI. Unlike engagement according to the publications, engagement recorded on the website is based on the visitors' attention span, rather than the specific actions performed, that is downloads or shares. The percentages of the users that interact with the AllThings.Bio website are shown in Figure 3.2. These were taken from Google Analytics alongside the data mentioned in chapter 2.1.1. The WEI, in this case, is 28.5%. This is the percentage of users who spent more than one minute in the AllThings.Bio website.

Website Engagement Index

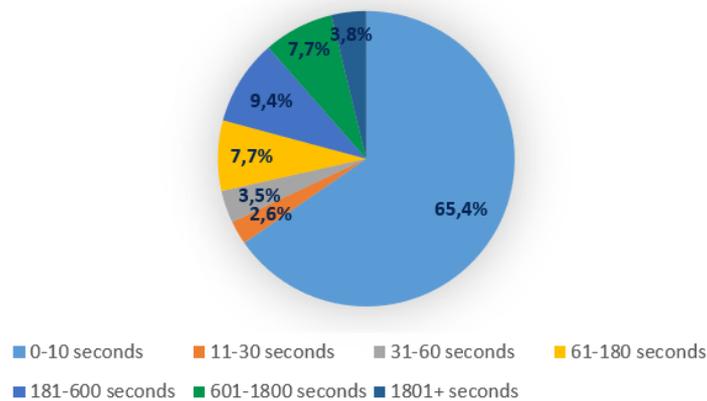


Figure 3.2 - Website engagement: percentage of users spending specific time durations in the Allthings.bioPRO website

Table 3.5 shows the website engagement split per seconds of web views, with the related percentage and numbers of users per each range of seconds. Within Allthings.bioPRO, a threshold of 60 seconds (the green rows in Table 3.5) was identified to discriminate more interesting content and calculate project website engagement rate and related WEI (Website Engagement Index). Nearly 11,600 pages (out of a total of 40,680) engaged users for more than one minute, representing a WEI of 28.5%. The higher the WEI is, the higher is the engagement generated by the website. Table 3.6 summarises the outreach, engagement and WEI data of Allthings.bioPRO.

Table 3.5 - Website engagement: web statistics from September 2020 until August 2021

Website engagement	% of users	Number of users
0-10 seconds	65.4% ⁸	26.589
11-30 seconds	2.6%	1.057
31-60 seconds	3.5%	1.436
61-180 seconds	7.7%	3.132
181-600 seconds	9.4%	3.804
601-1800 seconds	7.7%	3.123
1801+ seconds	3.8%	1.539
TOTAL (≥ 61 seconds)	28.5%	11.598

Table 3.6 - Allthings.bioPRO website outreach, engagement, and WEI

Website outreach	Website engagement	WEI
40,680	11,600	28.5%

⁸ The high number of dropouts is due, paradoxically, to the established role of the Allthings.bioPRO website (previously BioCannDo website) as one of the main bioeconomy portals of information. Indeed, it is easily reachable through the search engines and, therefore, lots of people interested in the bioeconomy world at large land on the site. Apparently, most of them while looking for bioeconomy stuffs at large run into Allthings.bio, which despite being a bioeconomy portal, is focused on specific parts of the bioeconomy which may not be those searched by most of the audience. It must be stressed that 11,600 users engaged in one year is a very relevant number (see chapter 2.1.1).

3.2.3 The Social Engagement Index (SEI)

The Social Engagement Index (SEI) measures the level of interest generated by all the social media posts made by the Allthings.bioPRO project; it also represents the amount of engagement made between the social media users with the content present in these posts. This is calculated by finding the ratio between the outreach and engagement levels for each social media channel.

The total outreach, total engagement and SEIs for each social media platform, and their overall SEI are shown in Table 3.7. The SEI percentages vary depending on how these channels work. Twitter, for example, has a wider online community in comparison to LinkedIn. This explains the substantial level of outreach with respect to LinkedIn. It, however, falls behind with the level of engagement as a public Twitter account opens its doors to anyone, while a LinkedIn page provides more familiarity with its followers as they are committed to following the content shared by the page.

The overall SEI for the Allthings.bioPRO social media channels is 2.5%. This is based on the ratio between the sum of the total engagement and outreach for all the channels.

Table 3.7 - Total outreach, total engagement, and Social Engagement Indices (SEIs) of the respective Allthings.bioPRO social media channels: Twitter and LinkedIn, and their accumulative values

	Twitter	LinkedIn	Facebook	Total
Total Outreach	32,686	4,573	2,343	17,324
Total Engagement	416	457	126	999
SEI	1.3%	10%	5.4%	2.5%

This is a very satisfactory SEI, both for Twitter, LinkedIn, and Facebook. The use of different channels allows the project to reach different types of audience (Twitter and Facebook for the civil society and the general public, LinkedIn for professionals and experts). In particular, the Twitter SEI is very positive, given that Rival IQ estimates the average Twitter engagement rate across all industries to be 0.05%, while social media experts agree in considering:

- An engagement rate between 0.09% and 0.33% as high
- An engagement rate between 0.33% and 1% as very high

Table 3.8, Table 3.9 and Table 3.10 show the key engagement data recorded from the respective Allthings.bioPRO social media platforms. Most of the activities on Twitter come from “Likes” followed by “Re-Tweets”. As for LinkedIn, its dominant actions stem from “Clicks” followed by “Suggestions” and “Shares”. Facebook engagement is dominated by likes and shares.

Table 3.8 - Engagement on Allthings.bioPRO Twitter account: indicators composing the overall engagement

	Mentions	Followers	Link clicks	Retweet	Likes	Replies
Totals	29	85 ⁹	45	71	185	1

Table 3.9 - Engagement on Allthings.bioPRO LinkedIn page: indicators composing the overall engagement

	Followers	Clicks	Suggestions	Comments	Shares
Totals	90	189	151	1	26

⁹ New followers since the beginning of Allthings.bioPRO (September 2020), not considering the previous followers of BioCannDo (the total number of followers on Twitter is 940).

Table 3.10 - Engagement on Allthings.bioPRO Facebook page: indicators composing the overall engagement

	Followers	Likes	Comments	Shares
Totals	6 ¹⁰	103	1	16

3.2.4 Community Engagement Index: CEI

Considering the analysis of the different impacts (WEI, SEI, PEI) provided in the previous chapters, the following table provides a summary of the independent areas contributing to the overall impact of Allthings.bioPRO towards its target audience. The next versions will include also further indices for webinars and events, if any.

Table 3.11 - Allthings.bioPRO summary of individual impacts

Impact area	Outreach	Engagement	Index	Index name
Publications	9,464	301	3.2%	PEI
Project's Website	40,680	11,598	28.5%	WEI
Social media	33,781	778	2.3%	SEI
Total	83,925	12,677	15.1%	CEI

Excluding double counting, **Allthings.bioPRO reached an overall outreach of 83,925 and a total engagement of 12,677.** This enabled the project to achieve a **total Community Engagement Index (CEI) of 15.1%**, representing Allthings.bioPRO ability to engage with its community of reference up to August 2021. The index is very positive; as outreach increases with the maturing of the project, the index of engagement may tend to decrease slightly. ICONS will put forward all possible measures to extend the Allthings.bioPRO community of stakeholders while keeping it active and engaged with the project.

4 Conclusions

Several communication and dissemination activities have commenced ever since the establishment of the Dissemination and Communication Plan. These have been reported in this deliverable. Their communication effectiveness has been measured based on the outreach and engagement indicators, as well as the indices developed by ICONS focussed on the web, social media, and multipliers.

As first results, we can highlight what follows:

- **Communication channels and materials** (website, socials networks, articles) have been delivered on time, disseminated, and made available to partners for further dissemination. Overall, ICONS has produced 1 leaflet in English, 5 leaflets in local languages, 1 poster, 1 presentation video (with available subtitles for 5 languages), several communication cards, 1 power point presentation.

¹⁰ New followers since the beginning of Allthings.bioPRO (September 2020), not considering the previous followers of BioCannDo (the total number of followers on Facebook is 430).

- ICONS supported the release of **5 factsheets**, one per mission plus one extra factsheet on general bioeconomy. The factsheets were uploaded online, distributed to partners and disseminated on social media.
- Overall, **8 press and news releases** have been released to disseminate the project. The news has been distributed to multipliers and uploaded on partners' and EU organisations' websites (like cordis, eu agenda etc.)
- Overall, partners attended to and/or organised **14 national and international events**, which allowed them to disseminate Allthings.bioPRO to approximately 300 people.
- ICONS is closely **monitoring** Allthings.bioPRO outreach and engagement indices for several activities: social networks, website and publications.
- So far, **Allthings.bioPRO's publications** have a total outreach of 5,369 views (1,790 outreach per publication on average) and a total engagement of 183 (61 engagement per publication on average). The Publication Engagement Index is 3.4%, which is above the average of ICONS' projects of the same area (bio-based projects monitored by ICONS). The PEI will be more significant once the project editorial activity will increase.
- The **website is engaging** with worldwide visitors. The website has a total of 42,000 page views and 26,443 users (out of a total of 31,069 sessions) with an average of 1.35 pages per session and almost 1 minute of average time spent per session.
- The initial data underline that the **multiple-channels social media strategy** works well because the social media compensate each other in terms of outreach and engagement and, consequently, in terms of audience reached. Indeed, while Twitter is by far the most effective social media in reaching its targets (32,686 people reached and 416 users engaged, thus 1.3% SEI), LinkedIn creates smaller but very interactive communities (4,573 people reached) that engaged with the project's content (457 people engaged, thus 10% SEI). This is reflected in the Social Engagement Index, which, merging 1.3% from Twitter, 10% from LinkedIn and 5.4% from Facebook, reaches 2.5% of total engagement.

In the upcoming months, the monitoring activity will progress and increase, thanks to:

- The increase of **Allthings.bioPRO editorial publications**. This will add youris.com to the analysis, as editorial products will be published also on this platform, as well as more information platforms not yet leveraged to date. The publication of articles and other editorial publications is also expected to drive increasing engagement on Twitter as more sophisticated publication types and content are usually more effective in animating the social community.
- The possibility to analyse **downloads** from the projects' website, as soon as there will be papers and materials to be uploaded online and disseminated.
- The organisation of **webinars, events and workshops**.

