

AllThings.Bio PRO

D5.4 Final Report on public communication activities (MS14)

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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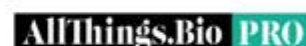
¹ PU = Public

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RE = Restricted to a group specified by the consortium (including the Commission Services)

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0 Summary

This report provides an overview of the communication, dissemination and monitoring activities up to the end of the project in M36 (August 2023), 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 the progress of **Communication and Dissemination** activities, which explains the different but complementary roles of communication and dissemination during the first two years of the project, 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.
- **Advertisement campaign**, which was developed during the last months of the project to promote the download and the use of the application Mission BioHero and Label BioHero.
- **Contribution of CED activities** to the expected impacts, to monitor the achievements of the project in terms of outreach and engagement.

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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 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 have been 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 have also been used to invite online users to participate in a dialogue on the different topics/issues addressed by the project.
Networking and Clustering events	These came 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	<p>The communication kit is a toolkit to support the exchange with partners when approaching stakeholders in specific events. The kit includes:</p> <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 helps 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 focus on the products and application areas relevant for the different game missions.
Editorial production	<p>In collaboration with WP2, WP5 has been in charge of producing different editorial pieces and formats covering the four main areas of the project, such as:</p> <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;
Digital storytelling	Digital storytelling in the form of a Page Flow™ has been 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 has been 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.).
Podcast	<p>The podcast production has been introduced into the project to attract new audience, especially Millennials and Generation Zero (Gen Z), as well as a larger slice of the general public. The first podcast series with four episodes on the bio-based economy and Allthings.bioPRO topics was published so far. The series is stored under the account of ICONS Innovation Stories - the podcast series that highlights cutting-edge developments in Europe's march towards a more sustainable future.</p> <p>The four episodes include:</p> <ol style="list-style-type: none"> 1. Episode 1: What's the bioeconomy? 2. Episode 2: The intricate story of food packaging 3. Episode 3: Don't say green fashion, say bio-circular fashion 4. Episode 4: Can toys ever be green and safe?

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 0. 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 has been 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 brand book*. 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 July 2023.

Figure 1 shows the audience of the Allthings.bioPRO website and their behaviour and interaction with the web page. Generally, data are positive: the numbers of sessions¹ (88,737) and page views² (114,375) are very good. Indeed, the Allthings.bioPRO website is one of the main online platforms on bioeconomy and it's promoted by all search engines. However, on the other side, this is also the reason of the high bounce rate. An extensive explanation of the result of the website is provided in Chapter 3.2.2 – The website engagement index (WEI).

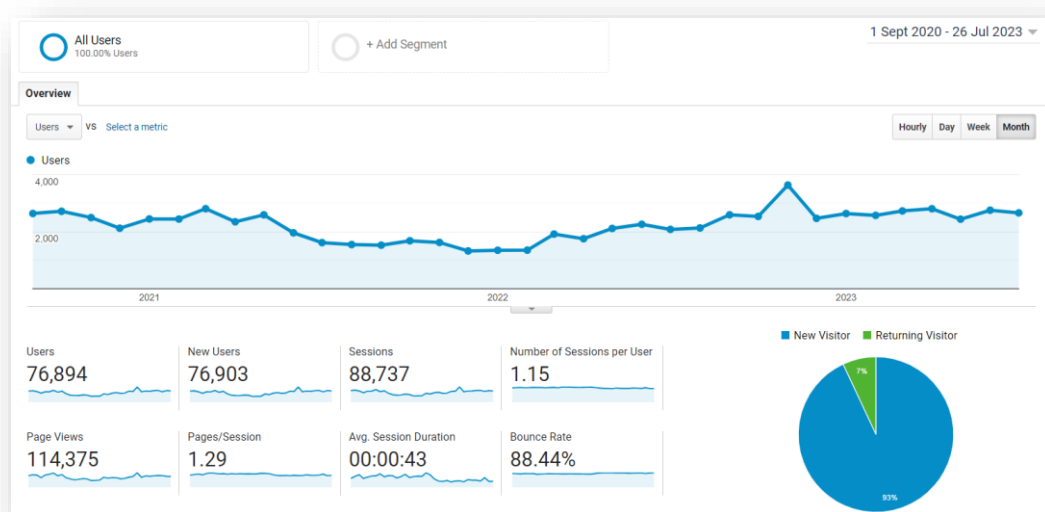


Figure 1 - Number of users accessing the Allthings.bioPRO website from September 2020 until July 2023 and further analytics data (source: Google Analytics)

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.

As showed in Figure 2, many of these users access the project website via Organic Search³ (59.4%) followed by Direct⁴ (35%). 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.

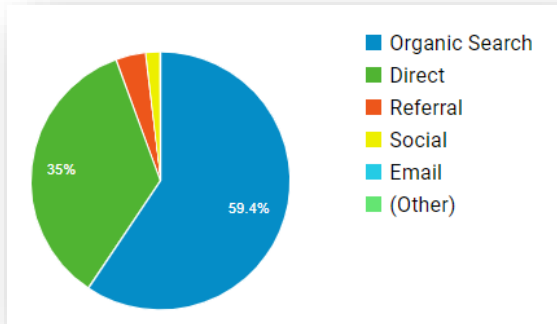


Figure 2 - Type of acquisition

Regardless of the different pathways, users do not always need to enter the Allthings.bioPRO website through its primary page. Listed below in Figure 3 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. 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.

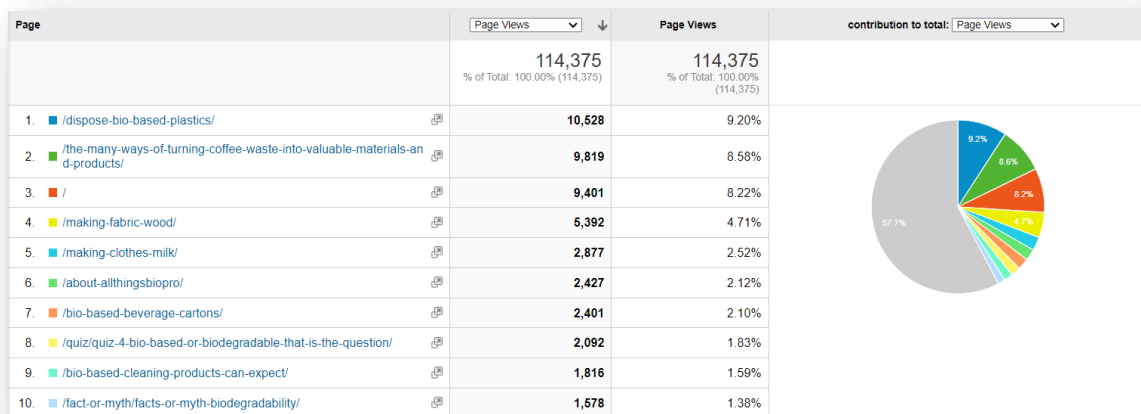


Figure 3 - Ranking of landing pages according to the percentage of page views (source: Google Analytics)

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.

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 in providing updates is regularly encouraged.

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

2.1.2 Media Multipliers

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

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 that have been 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 have always been encouraged to republish the project's press and news releases via their own networks and websites. They had to notify ICONS once they re-distribute the said materials.

All these have been monitored thoroughly to quantify the outreach of the project's communication materials. By doing so, ICONS has been 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 has been responsible for distributing the news and press releases and journalistic articles to external news multipliers.

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

Both actions have been monitored to measure the outreach of Allthings.bioPRO communication materials accordingly.

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.

2.1.3 Social networks

The Allthings.bioPRO project has a strong online presence via social media. This has been 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 was 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 has been 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 July 2023, 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 0.

On Twitter, Facebook and LinkedIn, regular posts have been made to keep its online community interested in the ongoing developments within the project. For all social networks, cards have been 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 4) use key messages and short facts to inform the audience about the main topics of the project.
- **World days cards** (figure 5) 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 6) 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 explain bioeconomy related keywords and/or technical contents.
- **Social Media Campaign for the quizzes** related to the podcast episodes aiming to make them more interactive for the audience, especially the general public. For each of the four episodes of the podcast BTG in collaboration with ICONS drafted multiple-choice quizzes about the themes of each episode to be shared on the Allthings.bioPRO social networks and to which users could answer.
- **Cards to promote the Allthings.bioPRO game and the app** (figure 7). In April 2023, Allthings.bioPRO finally released the game and app, the main project outcomes. To mark this release and to distribute it, ICONS created cards for use on social media channels.

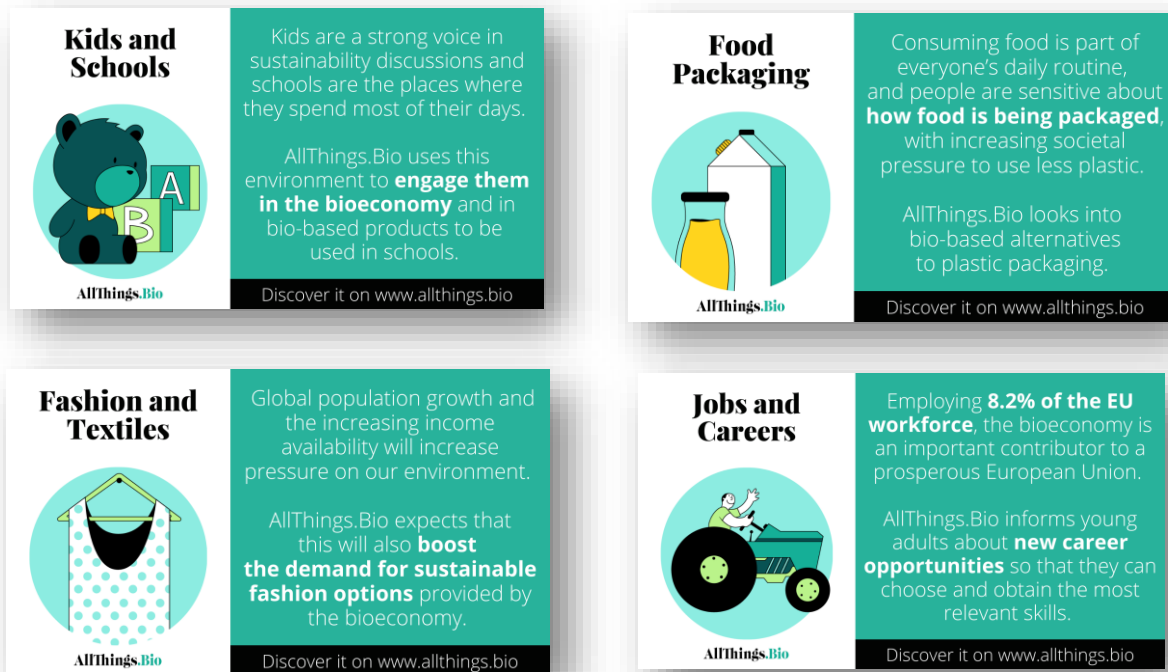


Figure 4 - Thematic cards



Figure 5 - World days cards



Figure 6 - Glossary cards

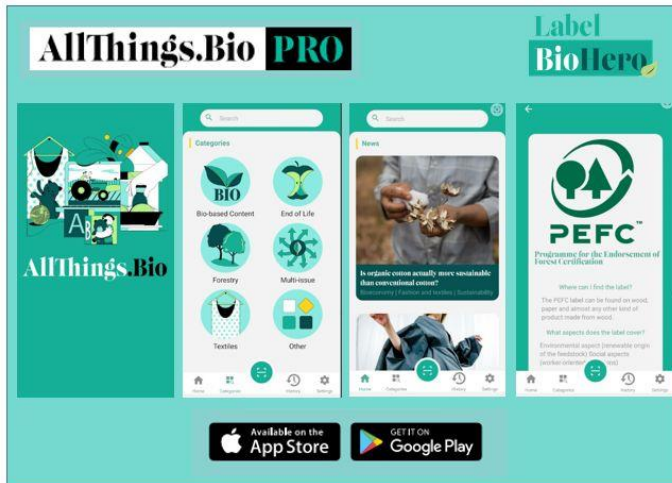


Figure 7 - App and game card

Accountability

ICONS has been responsible for the main part of the social media activities, like posting on social media, following existing ones and monitoring outreach.

The consortium partners were 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.

2.1.4 Networking and clustering events

Allthings.bioPRO partners participated 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, participated in conferences, fairs and events in general and carried 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. During the whole duration of the project, the Allthings.bioPRO project partners participated in 62 events, split per networking events, conferences, fairs, co-creation workshops, festivals etc. In such events, partners presented the Allthings.bioPRO project to a local or European audience reaching thousands of people and stakeholders (approximately a total of 21,400 people). The full data is available in Annex 1.

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 helps to generate a strong 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.).

Accountability

ICONS has been responsible for keeping track of all relevant events in which Allthings.bioPRO partners participated. Also, ICONS together with BTG got

in contact with sister projects to strengthen collaborations and to organise cluster activities.

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

2.1.5 Communication kit

The project communication starter kit came with a set of materials to 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 was meant to raise awareness for the project, its objectives and main areas of activity.

It was used to support the dissemination and distributed at events attended by consortium members. Likewise, it was part of the communication package dispensed at the co-creation workshops and focus groups, which were 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 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 was 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 could 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.

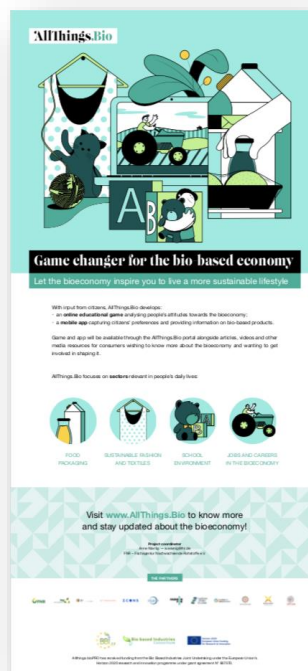


Figure 9 - Allthings.bioPRO poster

Accountability

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

ICONS was 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 was a ready-to-use presentation, which came handy when partners were 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.

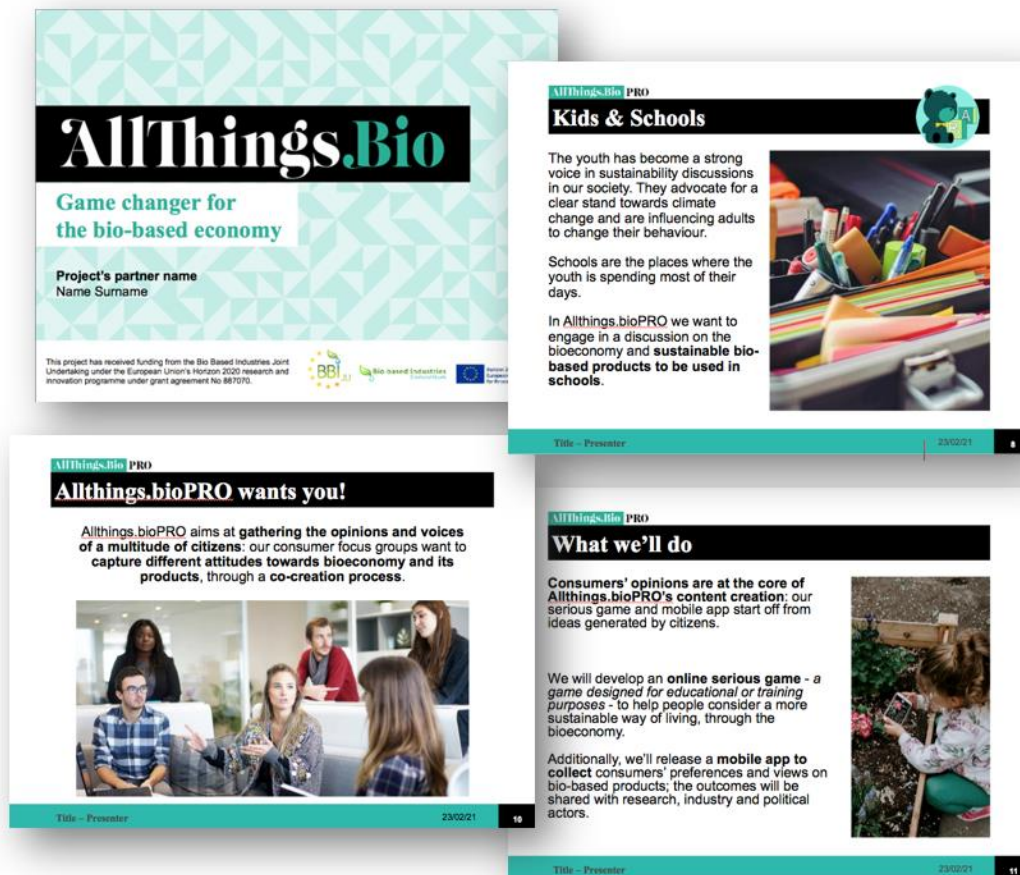


Figure 10 - The Allthings.bioPRO Power Point presentation

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 was a touchpoint between the project and its audience. It provided a glimpse into the project at an early stage, when most operational activities were still to be implemented. It was 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.

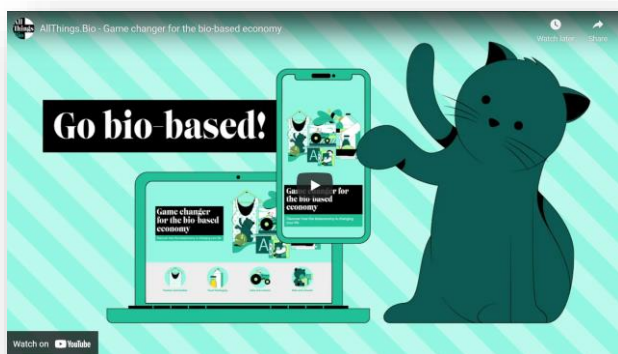


Figure 11 - Allthings.bioPRO video

Accountability

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

ICONS was 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 have contributed to disseminate the video.

2.1.6 Factsheets

The production of factsheets was 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 uploaded them in the [insights section](#) of the Allthings.bioPRO website, where they could be easily downloaded by everyone. The promotion online and on social networks has continued 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 has been essential to reach the different targets of Allthings.bioPRO and to distribute the contents at different geographical levels.

The production included several formats and materials. From the beginning of the project until M36, a lot of news, articles, glossary posts, podcast episodes have been produced. Some of these products were mainly 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 have been written by professional journalists and aimed 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.

From the beginning of the project up to M36, six articles have been published and distributed by ICONS. They focus on food packaging, fashion and textiles, kids and school, which are the Allthings.bioPRO themes, and the ATB games and app. In fact, the last article from May 2023 focuses on games that help learn the bioeconomy. Each article involves one partner responsible for the activity in question within the project as well as at least one external expert in the field.

The articles were firstly published on the project website and on youris.com, which is ICONS' media platform. Secondly, they were 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 always informed and encouraged to interact with the articles and to share it through their channels.

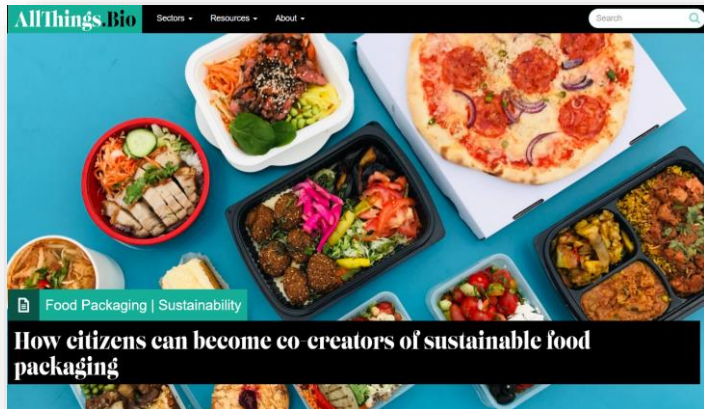


Figure 12 - Preview of the Allthings.bioPRO first article on the project website

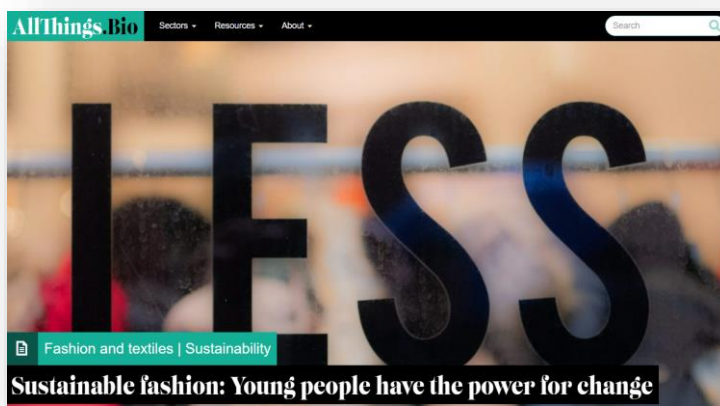


Figure 13 - Preview of the Allthings.bioPRO second article on the project website



Figure 14 - Preview of the Allthings.bioPRO third article on the project website



Figure 15 - Preview of the Allthings.bioPRO fourth article on the project website

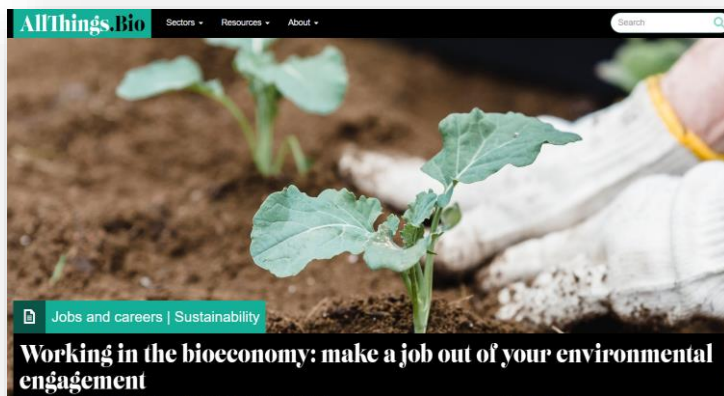


Figure 16 - Preview of the Allthings.bioPRO fifth article on the project website

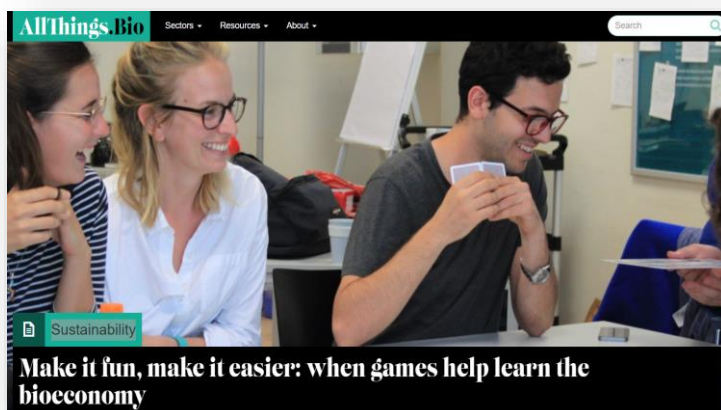


Figure 17 - Preview of the Allthings.bioPRO sixth article on the project website

Accountability

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

The articles were produced, disseminated online (website and social media) and distributed to multipliers by ICONS. Once published, partners were 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 have been written to address the different issues and aspects of the project. These draw the attention of stakeholders and the general public. Press releases have been 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 were 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 were published on the Allthings.bioPRO website and, once sent to partners, they were distributed by ICONS across the different external multipliers in order to get a large audience and to be monitored by ICONS' tools.

During the whole 36 months of project, Allthings.bioPRO has published and distributed 39 editorial products, among press and news releases, articles, newsletters, podcast episodes. The full list is available in **Errore. L'origine riferimento non è stata trovata.** 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.

Accountability

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

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

Local partners were 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 has been intense over the whole project lifespan and featured a number of different formats to be used for separate purposes and at separate times during the project (co-creation, videos for the game app, social, educational etc.).

All videos have been produced following ICONS procedures and best practices. Therefore, the communication objectives of each video type were evaluated, and scripts and storyboards were produced in close collaboration with the most involved partners to make sure that the graphic assets of the project were fully exploited and considered. The ATB presentation and the co-creation videos were already presented in previous versions of this report. The rest of the video production made from August 2022 (M24) until today, August 2023 (M36), includes⁶:

- 1 presentation video, not included here because part of the Communication kit (Chapter 2.1.5.4).
- 1 co-creation video.
- 7 video pills for social media (4 dedicated to the game and 3 to the app) in preparation of the release of the game and the app.
- 4 educational videos, presenting sustainable behaviour practices and focussing on the impact that actions have on the environment.
- 4 social media clips for the game and the app have been published on ATB social media channels, for Call-To-Action (CTA) to play the game and use the app, and to disseminate them online.

2.1.8.1 Video on co-creation process

The first video produced is the one to promote the co-creation process, its aim and methods. It targets citizens and challenges their participation in the missions. The video is in English, with subtitles in local languages in order to be used by regional partners during their local activities and workshops. It includes animations and is 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 video was finally published in September 2021. On YouTube the video got 958 views.

Table 2 - Script for the video on co-creation process

Script		Section	Reading time	Mood
Ever heard about serious games? Their purpose is to let you gain knowledge through a fun environment.				
In Allthings.bio, we are building one that will plunge you into the bioeconomy world.		Intro	0:25	Engaging - fun

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>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>				
<p>That's where co-creation comes into play. 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> <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>		Co-creation and co-design	0:31	Explanatory
<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>		WP3 overview and expected results	0:27	A focus on a concrete application
<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>		CTA	0:10	
-		Official info	0:05	-

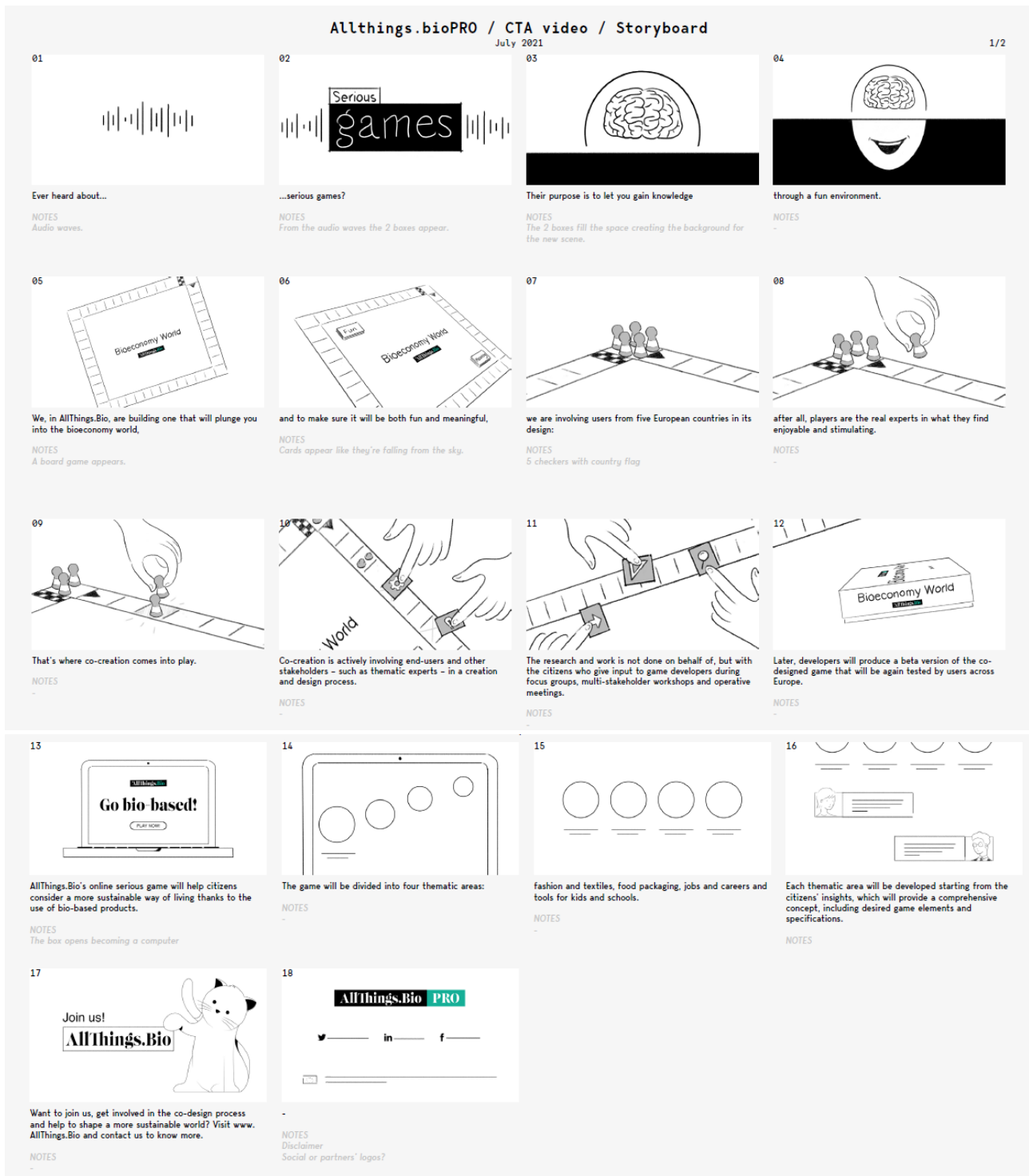


Figure 18 - Storyboard of the video on co-creation process

Accountability

The video was the result of a joint effort among BTG, BSS, FNR and ICONS. ICONS was 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 was produced by ICONS, while the translations for the subtitles were provided by local partners.

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

2.1.8.2 Videos for the game

Four videos for the Allthings.bioPRO game have been produced by ICONS in collaboration with NuroGames (NG) to make the game more interactive, with sounds, graphics, and characters that give an idea of what is going on in each step of the game.

- 1 intro video
- 1 ending of the 1st campaign video
- 1 finishing the easier campaign and unlocking the harder ones
- 1 outro video

To keep consistency with the game, videos are made in 3D, despite the graphic identity of Allthings.bioPRO is in 2D. The production process started in M18 with ICONS presenting the general concept proposal and the tentative timeline to NG. The timeline was approved end of March and the months of April, May and June were dedicated to the draft and the final approval of the scripts and the storyboard and to the start of the production of the four videos, which also involved feedback and inputs from NG to align the production to their expertise and to the game. July and August were dedicated exclusively to the production of the videos in draft mode and the revision internally at ICONS. The finalisation and the delivery of the videos is expected by the month of September 2022. The videos were translated by local partners, the translations were collected by ICONS and finally sent to NG in July 2022.

Characters

- Architects are the “Gods”
- Protectors are sent by the architects to erase damaged planets
- If protectors disobey, they lose powers
- The protectors become rebels because they go against the Great Architects to save Earth
- Earth is worth saving because humans are doing something good
- The player embodies a rebel, not a human
- The player is a rebel that decides to help humans save the Earth

Stories

The videos introduce the different parts of the game, guiding the player through it:

- **Intro.** The first video shows the very beginning of the story, it gives the player the mission. The Earth is collapsing, and the Great Architects order the protectors to destroy it. However, they decided to save

it because things could be fixed, and some humans were doing their best to protect it. So, the protectors become rebels sacrificing their powers for the cause.

- **End of the first campaign.** The second video shows the progress made by the rebel, namely the player, who is restoring damaged cities and getting superpowers back.
- **Finishing the easier campaign and unlocking the harder ones.** The third video shows the players that most of the Earth is now safe, while warning him/her to be careful, because worse is yet to come, but more rebels are coming to help.
- **Outro.** The final video shows that the rebellion has succeeded, rebels saved the Earth and proved it's never too late to fight for what matters. The player regains all the superpowers and is welcomed among the Great Architects.

Scripts

1. Intro

Table 3 - Script for the intro video

	Script	What happens
Intro	<p>The balance of the universe is preserved by the Great Architects. They send the Protector, an extremely powerful being, to erase failing planets.</p> <p>Today, the planet to be destroyed is Earth. Humankind is doomed, only a miracle can save it...</p>	Written narration, no voice
Chapter1 - Context	<p>When the Protector arrived on Earth, it immediately realised that something was different.</p> <p>Some humans were making great strides in retraining the planet.</p> <p>“Earth is worth saving!” the Protector said.</p> <p>The moment it uttered these words, it started feeling weak. The Great Architects took its powers away as a punishment for their disobedience.</p> <p>The Protector became a rebel.</p>	Cutscene on how the Destroyers find beauty on earth and on what they see
Chapter2 - Link between the story and the game	<p>This is going to be a great challenge for you, rebel! Are you ready to team up with humans to save planet Earth and regain your powers?</p>	The narrator introduces the game challenge to the player

2. Ending of the 1st campaign

Table 4 - Script for the end of first campaign

	Script	What happens
1		Paris and Amsterdam are returning to their glorious past, with the buildings and the environment becoming cleaner.
2	Little by little, you have restored these cities to their glorious past	The change of the environment is shown in a form that trees start to bloom, blue rivers start to run, and the ground's colour changes from brown to green.

3	The residents are extremely grateful to you for such change.	People thrilled, thanking the player
4	Great job! Look, you got one of your superpowers back!	The player's character then regains one of its old abilities, understanding that the planet and the people can help it restore all of its powers.
5	Keep going, you're well on your way to regaining all your powers	The player's character then looks to the horizon, determined to continue helping the other places around the world.

3. Finishing the easier campaign and unlocking the harder ones

Table 5 - Script for the end of the easier campaign

	Script	What happens
1	Well done, Rebel! Most of the Earth is now safe.	We see that Earth is doing better, with the majority of it being successfully restored to a cleaner and greener state.
2	But be careful, the worse is yet to come	Dark clouds start to gather and loom over the planet's last remaining dirty areas. Lightning strikes the earth.
3		The player's character is visibly scared, fearing the trials and tribulations to come and that all the work was for naught.
4	Stand up! You cannot give up now, the people of Earth believe in you	The people show the player's character that they believe in it, which helps it regain some of its confidence.
5	And more Rebels are coming to help!	Other godly beings like the player's avatar come and join it to help restoring the planet despite the seemingly dire state.
6	This is the last effort you have to face; your mission is almost completed. Good luck brave Rebel	The player's character, having seen the support it gets for its hard work, looks to the threatening horizon, now overcome with determination to stop these catastrophes and save the planet with its allies.

4. Outro

Table 6 - Script for the outro video

	Script	What happens
1	You did it, your rebellion has succeeded, the Great Architects were wrong. You saved the Earth And proved it's never too late To fight for what matters.	The player's character rebels with other protectors and together with the people of Earth have managed to redeem the planet and clean it up.
2	You're welcome among the Great Architects. You deserve it!	The Architects embrace the player's character into their fold, crowning him/her/them as a decorated protector and the new Architect.

Accountability

ICONS was in charge of the video production for the game. The main concept and the scripts were drafted in collaboration with NG and with the involvement of FNR for the key steps and deadlines.

2.1.8.3 Seven video pills in preparation for the release of the game and the app, for social media

Seven short video clips were produced by ICONS before the ATB game and app were released, to prepare the audience of project social media channels for these productions, and to reach our targets. Consortium partners were asked to help share the videos on their pages and among their corporate and personal accounts as well. Every video had a different call-to-action, which are listed below.

Mission BioHero:

- Turn you into a BioHero https://twitter.com/AllThings_Bio/status/1597524208292368384
- Save the world together: https://twitter.com/AllThings_Bio/status/1599736993768148994
- Teach you more about the bioeconomy:
https://twitter.com/AllThings_Bio/status/1602615701126189056
- Show you how to make cities greener:
https://twitter.com/AllThings_Bio/status/1603343323833442304

Label BioHero:

- Group the labels into categories: https://twitter.com/AllThings_Bio/status/1618549158230757376
- Keep you posted on bioeconomy: https://twitter.com/AllThings_Bio/status/1620015049711714306
- Scan and read the bio-based labels: https://twitter.com/AllThings_Bio/status/1603343323833442304

The pills were used on social networks and, globally, got 2,503 views.

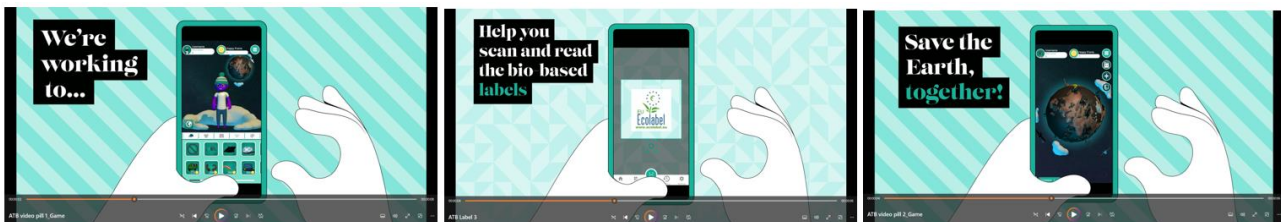


Figure 19 - Screenshots from the video pills in preparation for the release of the ATB game and app

Accountability

ICONS was in charge of the video production for the game. The main concept and the short scripts were drafted by ICONS.

2.1.8.4 Four educational videos

Four educational videos have been produced to transfer sustainable behaviour practices, acknowledge them on the impact that our actions have on the environment and sustainable, bio-based solutions available on the market to solve most urgent bioeconomy issues. The videos do so by taking the spectator on a journey with Miriam and Aleksy, two children who grew up passionate about the bioeconomy and decided to make it their study and work. The script has been translated in the local languages related to the regional initiatives involved and partners' geographic distribution, to ensure local dissemination. The educational videos were posted on [AllThings.Bio Project YouTube channel](#) and were then also disseminated on the project's social media channels, including by the consortium.

Scripts & screenshots

1. Educational videos – episode 1: Bio-based VS biodegradable

Table 7 - Script for educational video 1

	Script	What happens
Miriam and Aleksy presentation	This is Miriam This is Aleksy	Split screen with the 2 children at school. Insert differences
Intro	Today there's science class, they're studying the world of plastics The teacher is explaining that, thanks to the bioeconomy, plastics today are not all the same	Zoom-in on the blackboard on which the graph appears. The screen divider line can turn into the horizontal axis of the graph that would go full screen.
Graph	There are conventional plastics made from fossil fuels, and others made from bio-based materials	In the fossil fuels/non-bio box appears bottle + acronyms
	Some bio-based plastics are biodegradable,	It appears the drinking cup and cutlery + acronyms
	others are not	Bottle and container + acronyms appear
	And even fossil-based plastics can be biodegradable, unbelievable!	Organic bag
	Who would ever imagine that science and the bioeconomy could be so interesting and so...useful!	Miriam and Aleksy have to throw away (different) plastic and now they know where to put it
Outro	What else will Miriam and Aleksy discover about the bioeconomy?	

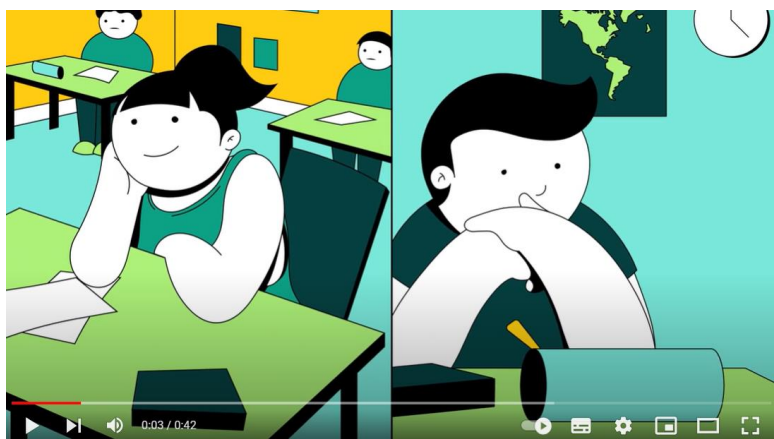


Figure 20 - Educational video 1: Bio-based vs biodegradable

2. Educational video – episode 2: Labels

Table 8 - Script for educational video 2

	Script	What happens
Intro	Miriam and Aleksy are teenagers now	Split screen, start with them entering the two shops or in front of a sign or similar

	Thanks to that school lesson, they have been fascinated by bioeconomy ever since Today they're going shopping	
Shopping	Miriam is throwing a party and needs cutlery, dishes and glasses for her night Aleksy needs a new jumper, winter is coming in Poland	Show the 2 characters in their respective environments
Labels	Whenever they buy things, they've learned to look at labels Labels can tell you a lot of an item: how it's been made, how much it is bio-based, or how to best recycle it	They pick up the label, Miriam of cutlery, Aleksy of jumper
	They read them choose the best product for them and make an informed choice	The screen splits again. They hold 2 products/2 labels and choose 1
Outro	They are always amazed at how much the bioeconomy is part of their daily lives. Will it also influence their studies?	



Figure 21 - Educational video 2 – Labels

3. Educational video – episode 3: Green fashion and food packaging

Table 9 - Script for educational video 3

	Script	What happens
Intro	As they apply for university, Aleksy and Miriam have no doubts	Separate display, university image
Aleksy	Aleksy wants a career in sustainable fashion	Screen on Aleksy
Fashion	He decides to study natural fibres and to focus on the social aspects of fashion labour. His dream is to fund his own sustainable fashion brand	Aleksy analysing fibres and imagining his dream
Miriam	Miriam chooses chemicals to find green alternatives to packaging	Screen on Miriam only

Food packaging	She delves into raw materials and studies the composition and the life cycle of products She wants the packaging sector to become green and safe	Miriam in the lab studying materials and creating her packaging
Riprende l'argomento precedente	Thanks to the bioeconomy, Aleksy and Miriam have found their green path in traditionally pollutant sectors	Separate display
Outro	But will they be able to find a green job?	

Figure 22 - Educational video 3: Green fashion and food packaging

4. Educational video – episode 4: Green jobs

Table 10 - Script for educational video 4

	Script	What happens
Intro	University is over and it is time for Miriam and Aleksy to look for a job. Their courses were fundamental in understanding which path to take.	Separate display
Start-up for sustainable food	Miriam has founded a start-up company to study and produce sustainable packaging. She hosts many internships with students from her former course of study	Screen on Miriam. Showing Miriam in her start-up factory, where packaging is created
Clothing shop	Aleksy has opened a clothing shop, both second-hand and new fashion. There, he teaches his customers how much of a difference it can make to really know what we are buying.	Screen on Aleksy. Showing Aleksy talking to customers in his shop
	Miriam and Aleksy have found their way to make a difference in the world, but the labour market is full of many other green job opportunities! Just think of all the research centres and other jobs that strive to create a more sustainable world, step by step, including teachers who will make this information available to everyone.	A map of the world opens up in which, one after the other, green dots appear with the names of some job positions in the green world. When the teachers are mentioned in the final sentence, we can go back to their first teacher from the first video and show her to close the circle



Figure 23 Educational video 4 - Green jobs

Accountability

ICONS was in charge of the educational videos production. The main concept and the scripts were drafted in collaboration with FNR.

2.1.8.5 Four social media clips for the game and the app

Four short video clips for social media (30-45 seconds) have been designed by ICONS to communicate a message related to the game and the app developed by the project, through impactful background images and video footage, well balanced with light graphic elements that enabled better assessment of key written concepts. The two videos dedicated to the game function as trailers for the game itself. The two videos dedicated to the app, on the other hand, are intended to show the various concepts that can be learned with this app.

Scripts

Table 11 - Scripts for the four social media clips

What	Script
First video for the game	<p>The world is in danger Only a hero can save it Engage in quizzes to learn new facts about the bioeconomy Improve your behaviour towards the environment Adopt new habits and help save the world Are you ready to become a bio-hero? Download Mission BioHero</p>
Second video for the game	<p>The world is in danger Only a hero can save it Our game is an educational journey to make cities more sustainable Will you be able to manage the resources of a city, wisely and sustainably? Find out how the appropriate use of resources can make a difference Are you ready to become a bio-hero? Download Mission BioHero</p>
First video for the app	<p>Are you aware of how important labels are? Without labels, we cannot know what we buy.</p> <p>Our app will keep you informed about this and much more Become the up-to-date person on bioeconomy news: download Label BioHero</p>

<p>Second video for the app</p>	<p>Are you aware of how important labels are? With our app, you can learn to identify labels and their categories You will get lots of information on the bioeconomy world And you will get used to scanning and reading bio-based labels Become the up-to-date person on bioeconomy news: download Label BioHero</p>
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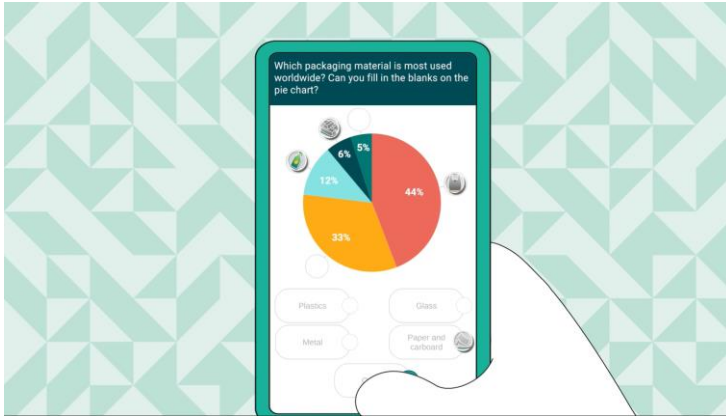


Figure 24 - Screenshot from the first social media clip dedicated to the game



Figure 25 - Screenshot from the second social media clip dedicated to the game



Figure 26 - Screenshot from the first social media clip dedicated to the app

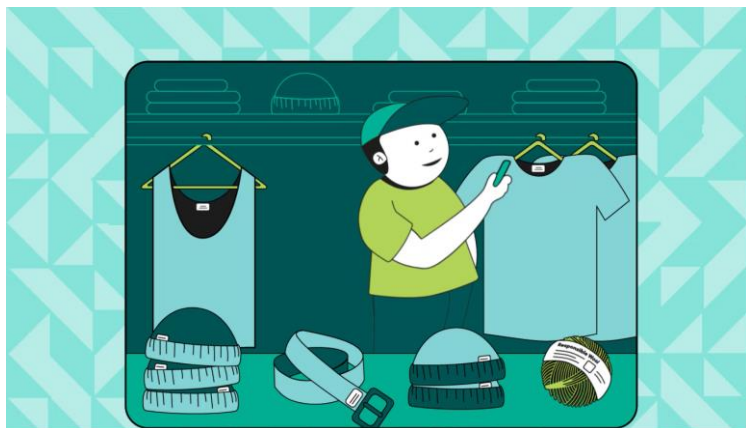


Figure 27 - Screenshot from the second social media clip dedicated to the app

Accountability

ICONS was in charge of the social media clips production. The main concept and the scripts were drafted in collaboration with FNR.

2.1.9 Podcast production

Podcast production has been introduced into the project to attract new audience, especially young people and the general public. Four episodes on the bio-based economy and Allthings.bioPRO topics were published so far. The episodes are published on the podcast platform Anchor, in ICONS' account, and then distributed to further platforms like Spotify and Google podcast.

2.1.9.1 Communication objectives

The podcast tackles the bio-based challenges embraced by Allthings.bioPRO. The topics are both general – about bio-based economy – and specific, on key details of the challenges. The episodes are available in English only. Each episode includes 2 or three voices, both project partners and external experts

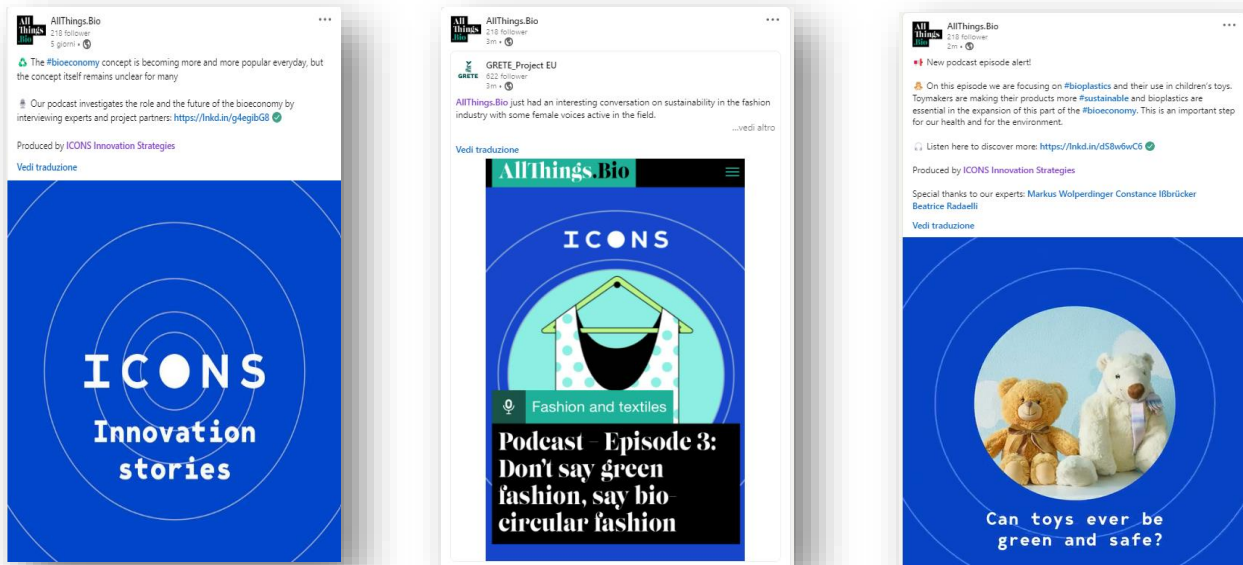


Figure 2.17 – Post of the podcast episodes on ATB’s social media channels

2.1.9.2 Targets, expected distribution channels, format

The aim of the podcast was to engage with a young public, especially those belonging to the so-called Millennials and Gen Z. The reasons behind this strategy were multiples:

- First, both **these generations are less attracted by traditional channels and products** like websites and articles. It means, without investing in new activities like the podcast industry, the project was leaving behind a large part of potential audience.
- Secondly, according to several research, like those of NielsenIq⁷ and EY⁸ just to mention a couple, both generations are very concerned about the protection of the environment, how to make sustainable choices, and, in general, are **very keen on topics related to sustainability and bio-economy**.
- Lastly, also due to the pandemic when people sought more ways to keep entertained at home, the **podcast industry continued to grow over the past years**. Podcasts have become extremely popular especially among young audiences (64% of 13-39-year-olds in Western Europe listen to podcasts⁹, while 50% of monthly U.S. podcast listeners are aged between 12-34¹⁰) and they’re currently a wave to surf to interact with such young targets.

⁷ According to [Nielsen](#), 75 percent of Millennials (those born between 1981-1996) are eco-conscious to the point of changing their buying habits to favor environmentally friendly products. And a vast majority of them say they are willing to pay more for eco-friendly products versus their cheaper competitors.

⁸ According to [EY](#), 53% of Gen Z and Millennials say that sustainability is important when making purchase decisions, an equivalent proportion also agrees that it costs too much to purchase sustainable products; 61% of Gen Z and Millennials consider the amount of packaging when buying products, but an equivalent proportion also agrees that they want more packaging to protect them from the risk of infection; 68% of Gen Z and Millennials want more information to help make better sustainable choices while 30% agree to have checked or validated sustainability claims made on packaging or in advertising in the last six months.

⁹ <https://www.ypulse.com/article/2022/01/18/how-popular-are-podcasts-in-western-europe-these-3-stats-tell-the-story/>

¹⁰ <https://riverside.fm/blog/podcast-statistics>

However, besides the young generations and the general public, the podcast addresses also stakeholders (companies, policy makers, academics) working in the bio-economy sectors or possibly interested in changing their habits for more sustainable ones. There are 4 standing-alone episodes, lasting 8-12 minutes each, generally made of 3 voices (1 inside the project + 2 external voices) + the moderator. Gender balance was respected whenever possible without interfering with the quality of the episodes. The episodes were distributed on several podcasting platforms, and are now available on Spotify, Google Podcasts, Anchor, Castbox, Stitcher, Radio Public, the ATB website.

2.1.9.3 *Timing*

Since the topics of the podcast are not subject to major changes over time, the episodes have been recorded from February to May 2022, one per month. Depending on the results in term of outreach and engagement and on the budget availability, a further series of 4 episodes could possibly be recorded and released in 2023. Starting in September, a social media campaign will feature key quotes from the speakers of each podcast episode. The campaign will be designed with cards made of audio and animation. The goal is to maintain the interest in the podcast series and reach more listeners.

2.1.9.4 *Contents*

1. **Episode #1: What's the bioeconomy?**

What exactly is the bioeconomy and how does it affect our everyday lives? To answer this question, in the first episode the journalist Stephen Jones interviews Michael Carus, chief executive of the Nova Institute and Martin Behrens, a member of the coordination team of Allthings.bioPRO.

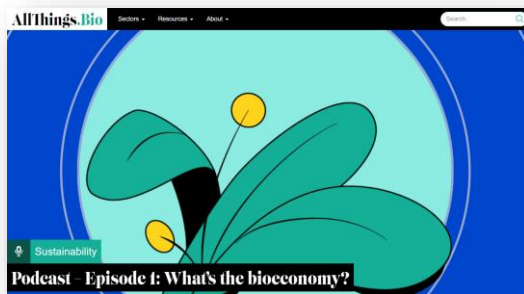


Figure 28 - Episode 1 of the podcast

2. **Episode #2: The intricate story of food packaging**

Most food packaging is designed to be single-use and is typically thrown away rather than reused or recycled. Moreover, the trouble with food packaging begins at its production: it requires a lot of resources, and its manufacturing generates polluting emissions. So, how can we disentangle ourselves from all this information?

Thanks to the experts Harald Käb, bioeconomy consultant, Tim Bulters, circular economy expert and partner of Allthings.bio, and Marjolein Mann, circular economy policy adviser, the journalist Stephen Jones seeks to answer the most intricate questions behind food packaging.



Figure 29 - Episode 2 of the podcast

3. Episode #3: Don't say green fashion, say bio-circular fashion

The fashion and textiles industries are two of the most polluting sectors. Choosing bio-based and circular clothes can be part of the solution. This episode hosts Lotta Waesterberg Tomasson from V&A, Katya Komlach, tour guide of the Fashion for Good Museum, Anna Pellizzari who works at Materially, a sustainable materials consultancy, and Annarita Colasante, academic and researcher in behavioural economics at Università La Sapienza.



Figure 30 - Episode 3 of the podcast

4. Episode #4: Can toys ever be green and safe?

Episode 4 of the Allthings.bio podcast series investigates why we need bioplastics in the first place, where the toy industry stand in this regard and what eco-friendly and sustainable alternatives are available. ICONS interviewed three speakers that guided us in this journey: Markus Wolperdinger, Director of the Fraunhofer Institute for Interfacial Engineering and Biotechnology; Constance Ißbrücker, who works for European Bioplastics; and Beatrice Radaelli, founder of eKoala, a bio-based toys company.

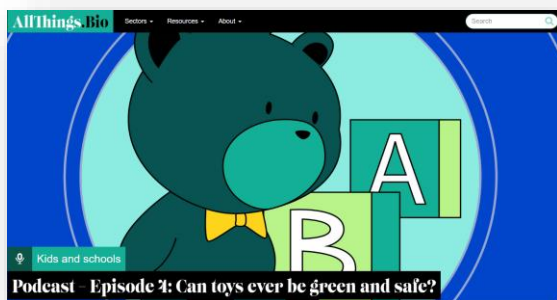


Figure 31 - Episode 4 of the podcast

2.1.9.5 Quizzes

For each of the four episodes of the podcast, we created quizzes about the themes of each episode to be shared on ATB's social media and to which users could answer, choosing one of the multiple-choice answer options. In this way, we tried to make the podcast more interactive and interesting for the audience, such as the general public. Three questions per episode have been asked, focusing on the lessons and messages of each podcast episode. The results of each quiz were always shared on social media 3-4 days after the release of the question.

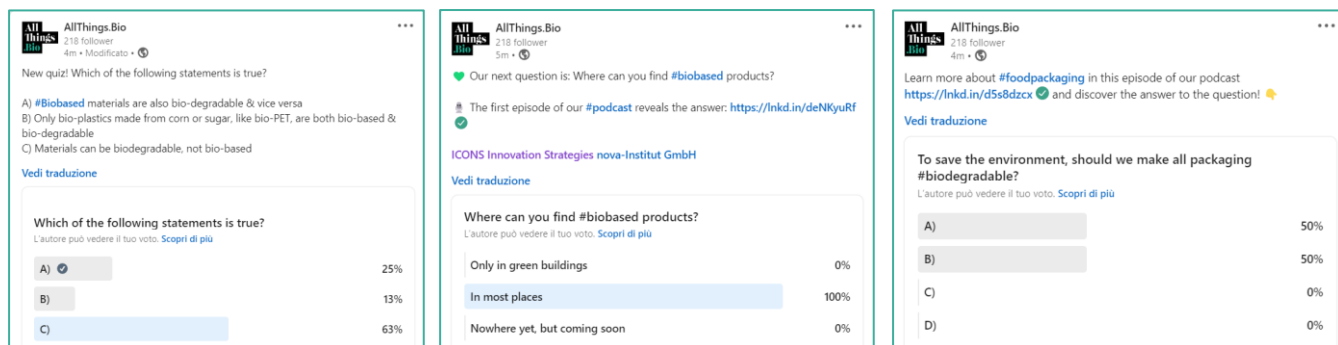


Figure 32 - Examples of quizzes for the podcast

2.1.9.6 Post-podcast dissemination

In order to prolong the life of the podcasts and continue to have them listened to months after publication, ICONS created a sound card for each speaker, including a short passage from the interview. By clicking on the card, one could listen to the audio and be redirected to the relevant podcast. An example is shown in the Figure 33.



Figure 33 - Example of sound card for the post-podcast promotion

<h2 style="margin: 0;">Accountability</h2>	<p>ICONS has been in charge of the podcast production, from the draft of the scripts to the recording, editing and publication of the episodes. The topics and the speakers were decided by ICONS in collaboration with FNR and, generally, with the approval of the whole consortium. Some partners participated in the podcast as speakers. The quizzes and the answers were drafted by WP2 (BTG and FNR). ICONS took care of the proof reading and the publication on the social networks.</p>
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2.1.10 Page flow

One [page flow](#), in the form of a digital storytelling tool for broad web distribution, has been developed and published by ICONS in July 2023 (M35). It integrates and packages different editorial products (any type of video material, audios, images, texts produced by the project) to narrate a rich story about the main solutions of the projects. It has been produced at the end of the project to recount all the major developments of Allthings.bioPRO, from the initial presentation video to the final development of the game and app, it focuses in fact on the results and lessons learnt related to the different themes also tackled within the serious game.

Storytelling tools are particularly effective when it comes to presenting difficult, complex contents or to illustrate relatively new topics. The Allthings.bioPRO page flow is a tool designed to create a narrative on given topics. They have been developed using Pageflow®, an online software tool that combines a variety of contents including texts, images, videos, animations and links to external resources. The combination of these items gives users an engaging experience, as a topic is delivered in an entertaining manner. In fact, the page flows present a description of how the ATB project aims to contribute to the shift to a more sustainable life through the bioeconomy, in the sectors of the everyday life of the general public, the main target audience of the project and of the page flow itself.

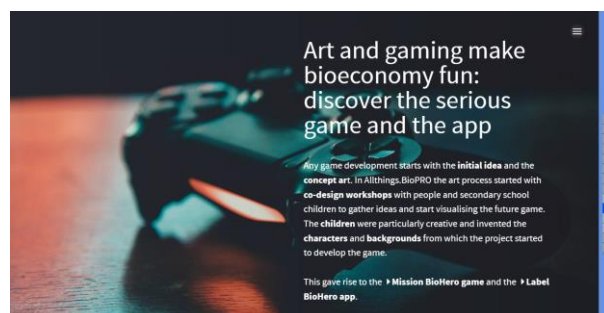
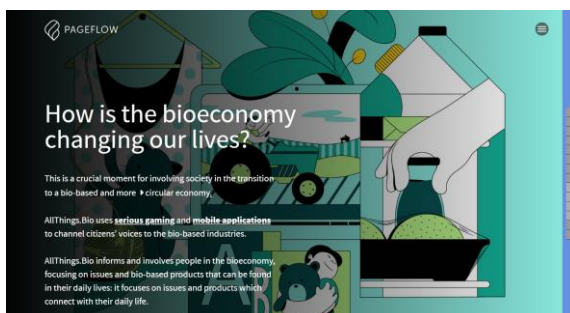
Script

Table 12 - Page flow script

Page flow slides	Script
Intro	How is the bioeconomy changing our lives?

	<p>This is a crucial moment for involving society in the transition to a bio-based and more circular economy.</p> <p>AllThings.Bio uses serious gaming and mobile applications to channel citizens' voices to the bio-based industries.</p> <p>AllThings.Bio informs and involves people in the bioeconomy, focusing on issues and bio-based products that can be found in their daily lives: it focuses on issues and products which connect with their daily life.</p>
Presentation video	Welcome to AllThings.Bio
Educational videos	<p>Start the journey into the bioeconomy with Miriam and Aleksy</p> <p>Allthings.Bio released four educational videos to show how bioeconomy is part of our everyday lives. They take you on a journey with Miriam and Aleksy, two children who grew up passionate about the bioeconomy and decided to make it their study and work.</p>
Introduction to the bioeconomy	<p>We have already heard of the bioeconomy, but what is it, exactly?</p> <p>Allthings.BioPRO is close to the citizens, and the four project missions aim to bring the general public closer to bioeconomy and sustainability:</p> <p>Food packaging; Fashion & textiles; Jobs & careers; Kids & school.</p>
Missions	<p>1. Sustainable food packaging</p> <p>There is a growing awareness that a shift to a more circular bioeconomy, which uses renewable resources and recycles waste, is the only way forward.</p> <p>2. Fashion and textiles</p> <p>Wearing bio-based garments, paying attention to the label and source is becoming a trend in the fashion industry.</p> <p>AMSTERDAM – The Fashion for Good Museum exhibition “GROW” travelling to several schools across Europe as part of AllThings.Bio.</p> <p>3. Jobs and careers</p> <p>The bioeconomy is expected to create 1 million jobs by 2030. From agriculture to the food industry, a wide range of opportunities is within everybody's reach.</p> <p>4. Kids and Schools</p> <p>In recent years numerous teaching resources have been developed to introduce bioeconomy in schools, from primary school to university.</p>
Co-design process	<p>Co-creation and co-design: a game to make daily habits more sustainable</p> <p>AllThings.Bio called on its followers to get involved through co-design workshops. They had their say about bio-based products and helped design and test the AllThings.Bio serious game “Mission BioHero”.</p>
Game & App	<p>Art and gaming make bioeconomy fun: discover the serious game and the app</p> <p>Any game development starts with the initial idea and the concept art. In Allthings.BioPRO the art process started with co-design workshops with people and secondary school children to gather ideas and start visualising the future game. The children were particularly creative and invented the characters and backgrounds from which the project started to develop the game.</p>

	<p>This gave rise to the Mission BioHero game and the Label BioHero app.</p>
Social media clips	<p>Online dissemination of the game and the app was carried out, among other things, through the production of four social media clips: Two acting as a kind of trailer for the game developed by Allthings.BioPRO, Mission BioHero, and two relating to the Label BioHero application.</p>
Focus on the app	<p>The app in short:</p> <p>Labels are a very important source of information still little considered by consumers. They allow us to understand the composition of the product, its origin and reliability.</p> <p>The Label BioHero app, available for both Android's and iOs, aims to fill this gap: users can scan (eco-)logos, labels and EU certification schemes, understand what they are buying and thus make informed choices.</p> <p>In particular, it focuses on bio-based non-food and non-energy products, such as packaging and textiles.</p> <p>The labels in the app are divided into six different categories:</p> <ol style="list-style-type: none"> 1. bio-based content 2. sustainability of forestry biomass 3. textiles products 4. end-of-life (what happens at the end of the product lifetime, such as biodegradability) 5. multi-issue (labels that cover more than one environmental aspect, e.g. Blue Angel)) 6. others (labels that are not directly related to bio-based or biodegradable products, as they deal with topics such as fair trade or recycling).
Focus on the game	<p>The game in short:</p> <p>Saving the Earth by transforming our lifestyle from fossil to bio-based is the goal of the Mission BioHero mobile phone game. The game, available for Android and iOS users, owes its name to the challenge we are invited to take on. It consists of eight campaigns, each on a specific theme that the player must complete to save the Earth.</p> <p>The campaigns include quizzes, tasks, mini-games to transform a city from a fossil-based value chain to a bio-based one, the acquisition of special skills and a lexicon summarising important definitions.</p> <p>Everyone who has a mobile phone and is over 12 years old can play Mission BioHero.</p>



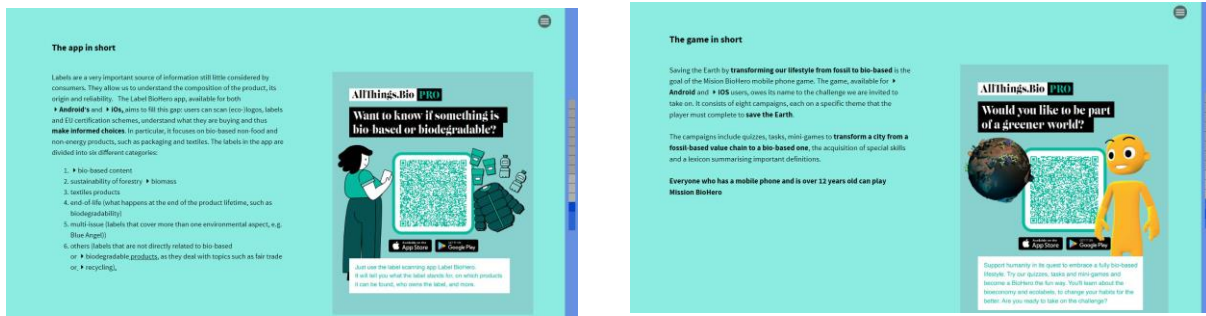


Figure 34 - Screenshots from the page flow

Accountability

ICONS has been in charge of the page flow production, from the draft of the scripts to the work online, editing and publication of the page flow. The topics and the script were decided by ICONS in collaboration with FNR.

2.1.11 Flyers for the game and the app

ICONS has produced two flyers dedicated to the game and the app, which contain the QR code to download the applications of both. Flyers are a very immediate way to communicate, disseminate and advertise something important. These flyers were requested by FNR after the release of the game and the app, which prepared the texts; ICONS took care of the design and graphics, including the final wrapping and preparation of the leaflets for printing.

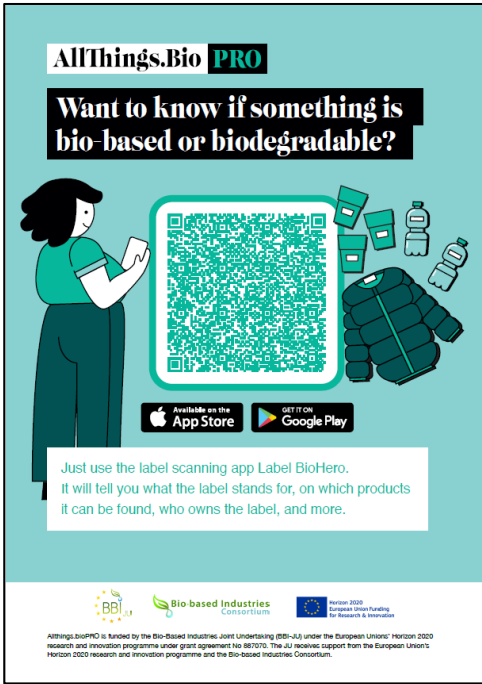


Figure 35 - ATB flyer for the app

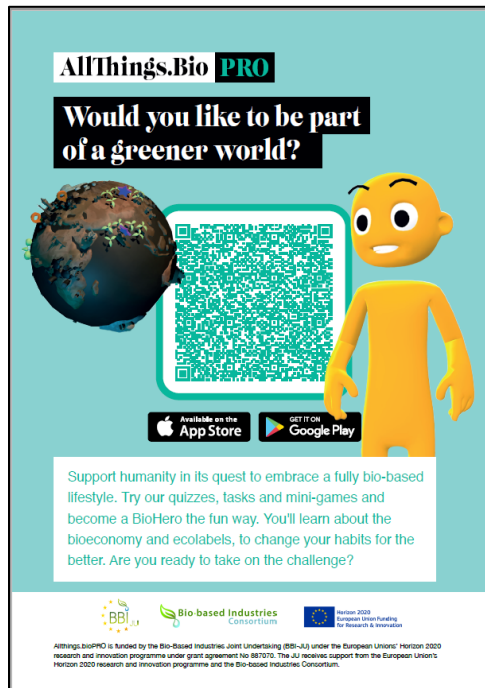


Figure 36 - ATB flyer for the game

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 are or will be posted in the project website and by other multipliers.

Table 13 provides a list of Allthings.bioPRO publications' outreach indicators and the tools used to collect the data.

Table 13 - Allthings.bioPRO Publications' Outreach Indicators

<i>Channels</i>	<i>Outreach indicators of Allthings.bioPRO publications</i>	<i>Tools</i>
<i>Website</i>	<i>Total visits on Allthings.bioPRO website</i>	<i>Google Analytics</i>
	<i>Unique visitors on Allthings.bioPRO website</i>	
	<i>Total visits on youris.com</i>	
	<i>Unique visitors on youris.com</i>	
<i>Social media</i>	<i>Twitter impressions on @AllThings_Bio</i>	<i>Twitter Analytics</i>
	<i>Twitter impressions on @YourIS_com</i>	
	<i>Visualisations on LinkedIn</i>	<i>LinkedIn Statistics</i>
<i>Multipliers</i>	<i>Impressions on multipliers (AlphaGalileo, Cordis Wire, Phys.org, etc.)</i>	<i>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</i>

In Table 13, 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 is 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 is 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.

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 14 shows the Allthings.bioPRO publications engagement indicators and the tools used to collect the data.

Table 14 - 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.)

Table 15 includes the outreach, engagement and PEI data **to show how the Allthings.bioPRO publications performed** until July 2023. The editorial products monitored are those released and distributed by ICONS.

Table 15 - Outreach, engagement and PEI data per each publication

<i>Bubble number</i>	<i>Publication date</i>	<i>Type</i>	<i>Title</i>	<i>Outreach</i>	<i>Engagement</i>	<i>PEI</i>
<i>1</i>	<i>26/02/2021</i>	<i>Video</i>	<i>AllThings.Bio - Game changer for the bio-based economy</i>	<i>5.770</i>	<i>997</i>	<i>17,3%</i>
<i>2</i>	<i>15/03/2021</i>	<i>Press release</i>	<i>Bioeconomy? Easy as can be with AllThings.Bio</i>	<i>2.866</i>	<i>57</i>	<i>2,0%</i>

3	19/04/2021	Press release	<i>A brand new set of factsheets to learn more about the bioeconomy</i>	2.882	111	3,9%
4	14/07/2021	Article	<i>How citizens can become co-creators of sustainable food packaging</i>	6.255	199	3,2%
5	21/09/2021	Article	<i>Sustainable fashion: Young people have the power for change</i>	5.108	159	3,1%
6	21/10/2021	Video	<i>Co-create and co-design with Allthings.bio</i>	2.287	49	2,1%
7	25/10/2021	Press release	<i>A game to make daily habits more sustainable</i>	3.454	194	5,6%
8	04/11/2021	News release	<i>Microplastic from textiles and how to avoid it</i>	4.623	97	2,1%
9	21/01/2022	Article	<i>The power of youth: Educating young people in the move to a sustainable future</i>	2.757	51	1,8%
10	15/02/2022	Podcast	<i>Podcast – Episode 1: What’s the bioeconomy?</i>	5.477	293	5,3%
11	21/02/2022	News release	<i>It’s time to pal up with the bioeconomy</i>	1.613	72	4,5%
12	14/03/2022	Podcast	<i>Podcast – Episode 2: The intricate story of food packaging</i>	4.338	239	5,5%
13	20/04/2022	Podcast	<i>Podcast – Episode 3: Don’t say green fashion, say bio-circular fashion</i>	2.944	194	6,6%
14	12/05/2022	Article	<i>How the pandemic highlighted bioplastic benefits</i>	4.403	181	4,1%
15	16/05/2022	Podcast	<i>Podcast – Episode 4: Can toys ever be green and safe?</i>	1.993	292	14,7%
16	11/08/2022	News Release	<i>Art and gaming make bioeconomy fun</i>	833	55	6,6%
17	27/10/2022	News Release	<i>Learning by playing: AllThings.Bio turns people into bio-heroes</i>	4.003	1.445	36,1%

18	24/11/2022	Article	<i>Working in the bioeconomy: make a job out of your environmental engagement</i>	1.638	82	5,0%
19	26/04/2023	Video	<i>Educational video - Episode 1: Bio-based VS biodegradable</i>	1.537	123	8,0%
20	05/05/2023	Video	<i>Educational video - Episode 2: Labels</i>	782	64	8,2%
21	09/05/2023	Press Release	<i>The importance of labels and how to know which ones to trust</i>	1.139	37	3,2%
22	15/05/2023	Video	<i>Educational video - Episode 3: Green fashion and food packaging</i>	1.224	71	5,8%
23	18/05/2023	Article	<i>Make it fun, make it easier: when games help learn the bioeconomy</i>	1.053	47	4,5%
24	22/05/2023	Video	<i>Educational video - Episode 4: Green jobs</i>	662	61	9,2%
Grand Total				69.641	5.170	7,4%
Average				2.902	215	7,4%

The total PEI of Allthings.bioPRO reaches 7.4%, a very high score. The percentage is the level of engagement generated by the project within its community. Figure 36 is graphic the translation of Table 15, using bubbles that indicate the level of engagement of each publication. The bubbles indicate every publication with the related number of the publication, and the size of the bubbles shows the level of engagement: the bigger the bubble the higher the engagement. Therefore, the bubble sizes give the PEI. The colours indicate the different editorial formats, as showed in the legend at the bottom of the image.

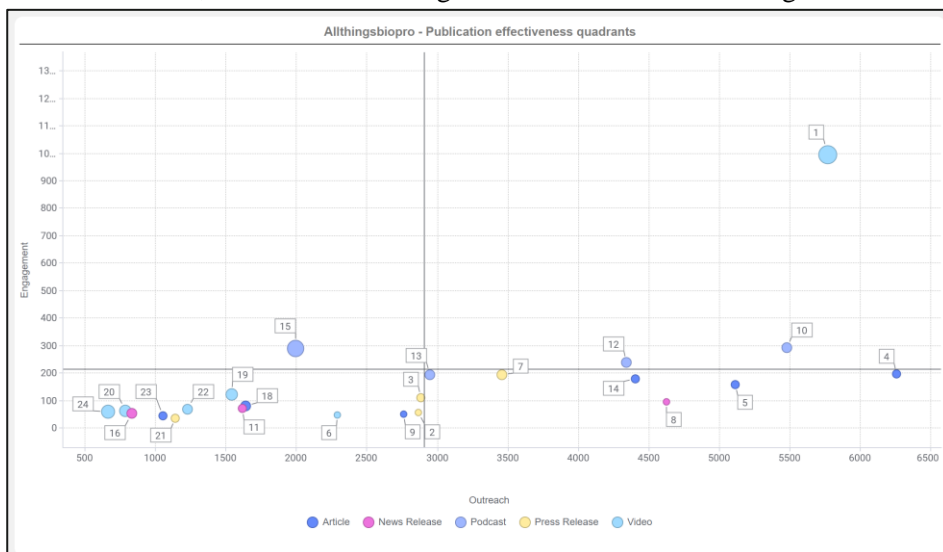


Figure 37 - Publications effectiveness quadrants

The axes (x & y) cross 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 (2,902) and engagement (215). 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:

- 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.
- 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.
- 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).
- 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.

3.2.1.1 PEI analysis by format and channel

The final aim of the engagement analysis is to understand which format perform best in terms of outreach and engagement and, possibly, take corrective actions to improve the performance of the different dissemination products. To this end, a PEI analysis by format can help to compare the performances of the different formats and, therefore, get a better understanding of data.

Table 16 shows the performance of the different format of the dissemination products published by Allthings.bioPRO, split per outreach and engagement on the different distribution channels. It is clear that articles and podcast reached the higher outreach, while news releases exceeded in engagement. This analysis is clear also in Figure 37: articles and podcast have a low engagement rate, but they place in the effective side of the board; while news releases are very engaging and are placed in the engaging quadrant.

Table 16 - PEI analysis by format and channel

Type	Outreach			Engagement			PEI			Total of Outreach	Total of Engagement	Total of PEI
	Web	Social	Multipliers	Web	Social	Multipliers	Web	Social	Multipliers			
Article	1.431	13.491	6.292	0	614	105	0,0%	4,6%	1,7%	21.214	719	3,4%
Podcast	742	14.010		0	1.018		0,0%	7,3%		14.752	1.018	6,9%

Video		12.262		0	1.365			11,1%		12.262	1.365	11,1%
News Release	492	7.446	3.134	0	1.654	15	0,0%	22,2%	0,5%	11.072	1.669	15,1%
Press Release	404	5.076	4.861	0	263	136	0,0%	5,2%	2,8%	10.341	399	3,9%
Total	3.069	52.285	14.287	0	4.914	256	0,0%	9,4%	1,8%	69.641	5.170	7,4%

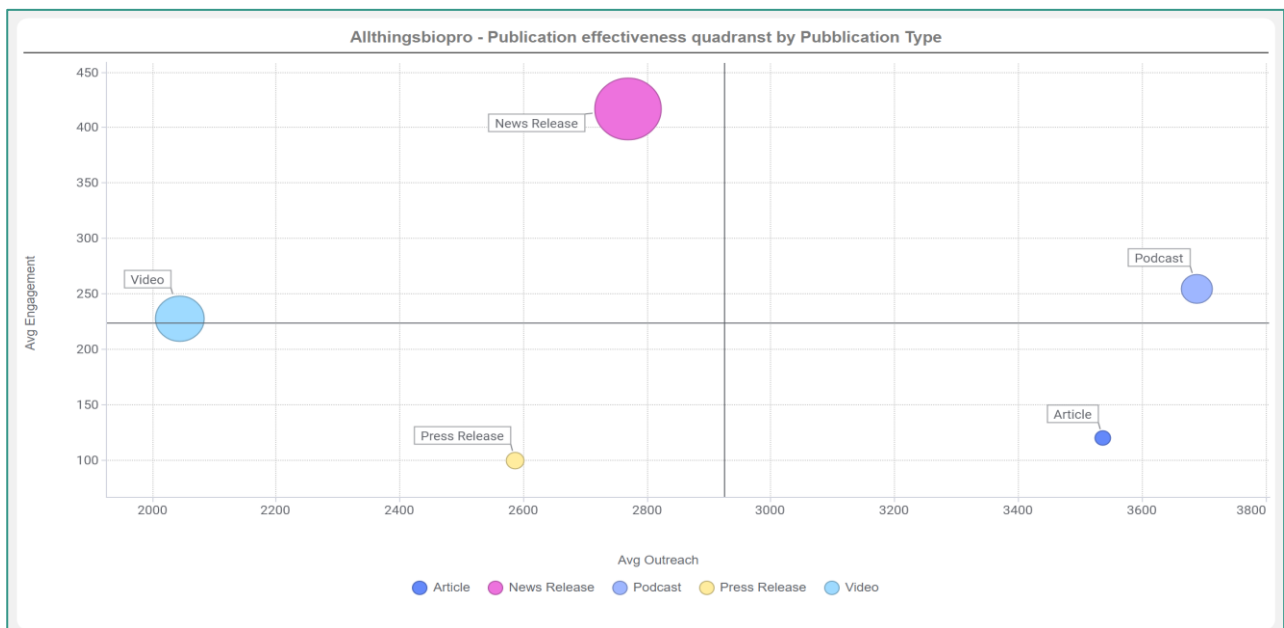


Figure 38 - Publication effectiveness quadrants by format

Figure 38 and Figure 39 highlight the PEI by format and by channel, respectively. It is interesting to emphasize the crucial role of social media in the engagement rate of the project.

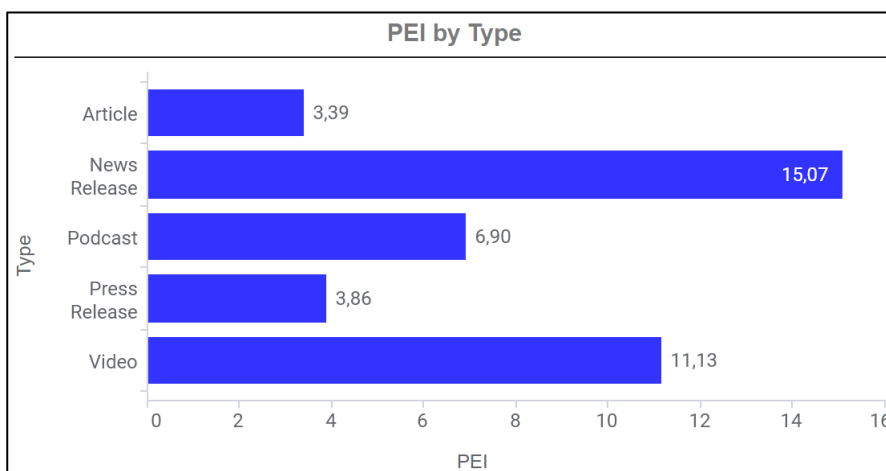


Figure 39 - PEI by format

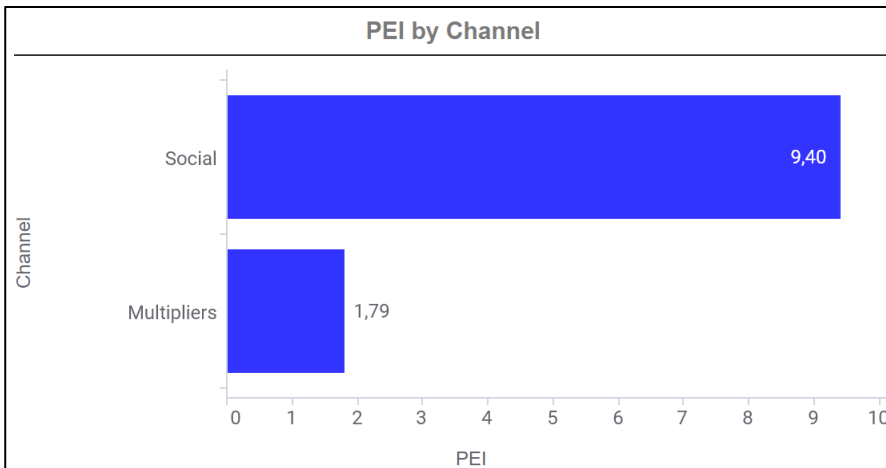


Figure 40 - PEI by channel

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.

Table 17 highlights the impacts of Allthings.bioPRO website from its start (September 2020) until July 2023. The number of page views reached 114,375 (72,036 in August 2022), while sessions reach 88,737 (30,100 in August 2021). 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 17 - Website outreach: web statistics from September 2020 until July 2023

Google Analytics Indicators	Allthings.bioPRO website
Users	76,894
Returning visitors	5,757
Sessions	88,737
Average session	00:00:43
Page views	114,375

The engagement index of the website is expressed in percentage with a natural range between 0 to 100. Its value tends to be higher in comparison to the PEI. Unlike engagement of 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 WEI, in this case, is 24%: this is the percentage of users who spent more than one minute on the Allthings.bioPRO website.

Table 18 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 18) was identified to discriminate more interesting content and calculate project website engagement rate and related WEI (Website Engagement Index). Nearly 27,350 pages (out of a total of 114,375) engaged users for more than one minute, representing a WEI of 24%. The higher the WEI is, the higher is the engagement generated by the website. Table 19 summarises the outreach, engagement and WEI data of Allthings.bioPRO.

Table 18 - Website engagement: web statistics from September 2020 until July 2023

Website engagement	% of users	Number of users
0-10 seconds	70.3%	80,426
11-30 seconds	2.7%	3,198
31-60 seconds	2.9%	3,402
61-180 seconds	6.6%	7,608
181-600 seconds	7.7%	8,792
601-1800 seconds	6.8%	7,796
1801+ seconds	2.7%	3,153
TOTAL (≥ 61 seconds)	24%	27,349

Table 19 - Allthings.bioPRO website outreach, engagement, and WEI

Total website outreach	Website engagement	WEI
114,375	27,349	24%

The engagement result of the Allthings.bioPRO website may seem low, with lot of people (70%) leaving the website after less than 10 seconds. To explain the result there are a couple of things to consider:

- The number of visitors of the website should be integrated with the outreach on the social networks. Indeed, during the last decade, websites have been partially replaced by social networks, used especially by millennials and Generation Zero to get information and stay posted. Therefore, 27,349 users who surf on the website for more than 1 minute should be considered as a quite positive partial result.
- Allthings.bioPRO topics (bioeconomy, bio-based materials, fashion, kids etc) are quite trending subjects lately. Therefore, it is reasonable to consider that many users, not looking for specific information like the project ones, land on the website by chance when typing such topics in their search engine and, thus, leave quite early.

Besides the percentage of the WEI, the outreach and engagement results of the website can be considered as quite positive. Anyway, this analysis is helpful to highlight that the website is probably not the most performant channel for the dissemination of the project, but it should be used mainly as an entry point and a place to store and collect the different products published by the project.

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.

Table 20 shows the full impacts and trend of the social media of Allthings.bioPRO: the total number of followers (980), the total number of posts (560) and the visits of the profile (nearly 40,000), as well as the outreach and engagement impacts and the total SEI. Table 21 split the data per social media channel.

Table 20 - Total outreach, engagement, and SEI of the Allthings.bioPRO social media channels

Social media channels - AllthingsbioPRO												
Project	Followers	Post	Profile Visits	Clicks	Likes	Reactions	Shares	Comments	Mentions	Total Engagement	Impressions	SEI
AllthingsbioPRO	908	560	39.670	2.149	2.071	1.418	687	41	155	7.429	171.050	4,3%

The total outreach, total engagement and SEIs for each social media platform, and their overall SEI are presented in Table 21. 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 4.3%, with over 0.6% increase compared to the SEI of August 2022, which was 3.66% (2.5% in August 2021). The growth of the SEI is a good picture of the project's progress and, thus, of the growing interest of the community in its content. The SEI is based on the ratio between the sum of the total engagement and outreach for all the channels.

Table 21 - Total outreach, engagement, and SEI of the Allthings.bioPRO split per social media channels

	Twitter	LinkedIn	Facebook	Total
Total Outreach	119,008	42.352	9,690	171,050
Total Engagement	2,902	3.643	885	7,429
SEI	2.4%	8.6%	9.1%	4.3%

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

Figure 40 shows the composition of the engagement on the different social media platforms.

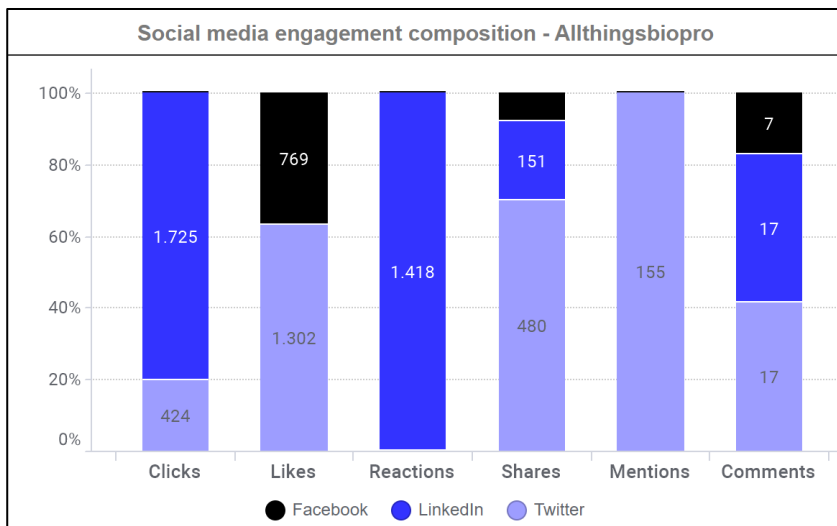


Figure 41 - Engagement composition of social media

Figure 41 shows the trend of the new followers, split per social network. Twitter and LinkedIn dominate in terms of followers.

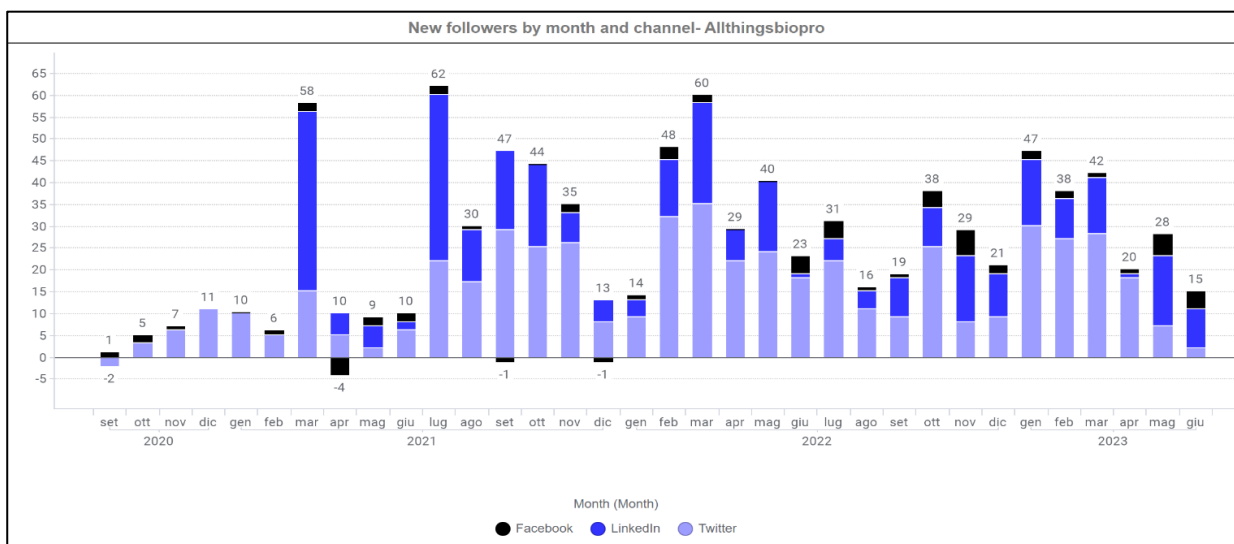


Figure 42- Trend of followers on Allthings.bioPRO social networks

3.2.4 The Podcast analysis

Since the podcast is a new activity in Allthings.bioPRO, the current deliverable dedicates a chapter to the analysis and monitoring of its data. The aim is to show the full results of this editorial product in a clear way, which can be an important lesson learnt for the future editorial activity of this project and other similar ones.

As mentioned above, the podcast production was quite successful in terms of both outreach and engagement. Looking deeper to its quantitative results, we can see that the 4 episodes got a **total outreach of 14,988 and a total engagement of 1,183, with 7.9% as engagement index.** Such numbers include the podcast’s data for the publications on the website, the posts on the social media, the total plays for the outreach, and the total number of quiz respondents for the engagement. Therefore, this analysis is partially already included in the chapters above, showing the PEI, WEI and SEI. To avoid repetition this chapter will be dedicated exclusively to the plays on the podcast platforms which are not included in the previous chapters.

From February to July 2023, the podcast was listened 379 times. The listening performance of the podcast is available in Figure 42. The performance was very relevant at the launch of the podcast and at the time of the release of the first episode, then it was constant over the time with peaks in correspondence to the release of each episode; then it was low but quite constant.

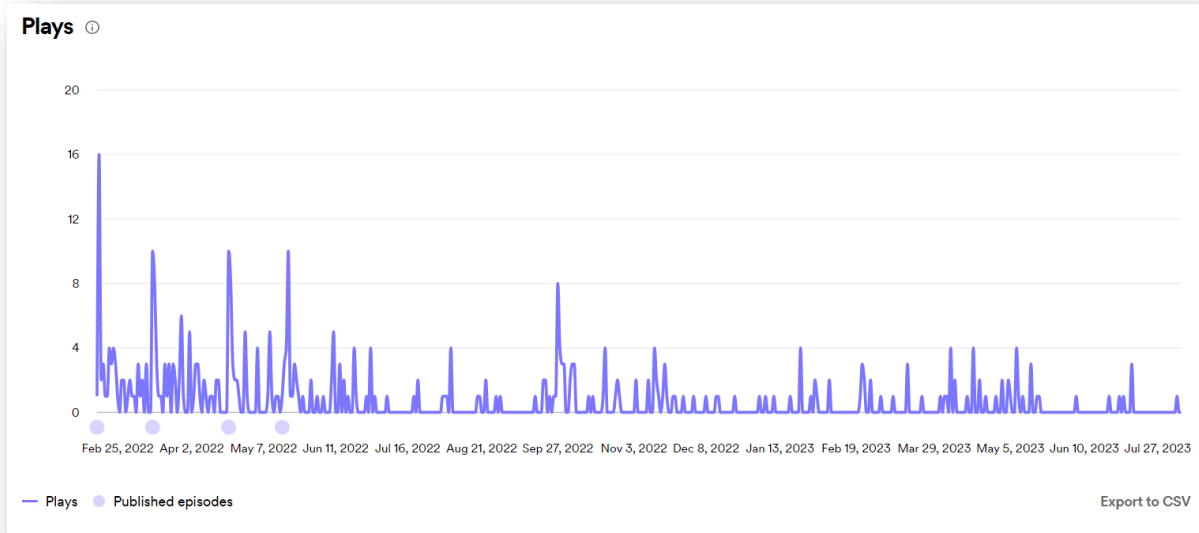


Figure 43 - Podcast performance from February to July 2023

Figure 43 shows the geographic location of the top-eight main audience, which comes mostly from Europe, in particular from some of Allthings.bioPRO partners’ countries (49% is from Italy, Germany, The Netherlands and Sweden). The rest of the audience comes from non-project countries, some of them even outside Europe, saying that the podcast was able to attract a global audience and to go beyond the project’s boundaries.

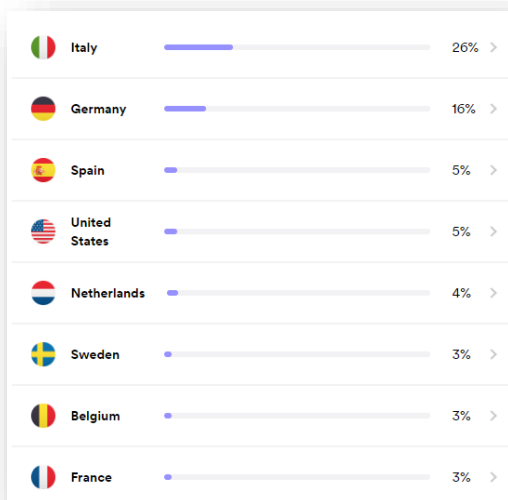


Figure 44 - Geographic location of the audience on the podcast platforms

Further information we have on the listeners of the podcast is:

- the most used **apps** to listen to the episode, with Spotify standing out (Figure 44). This information is useful for the distribution of the podcast, to learn which platforms perform best.

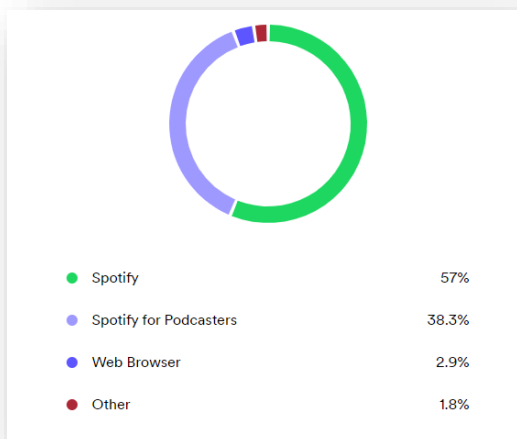


Figure 45 - Most used apps to listen to the podcast episodes

- the most used **devices** to listen to the podcast (Figure 45). Here the web excels, followed by Android and Apple as main mobile devices. The data is helpful to learn the most influential channel to push the podcast, for example, in case of a paid campaign to sponsor the product.

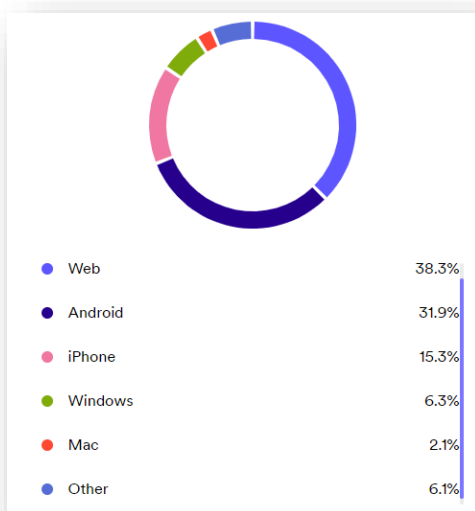


Figure 46 - Most used devices to listen to the podcast episodes

- The **gender balance** is another information, available in Figure 46. The distribution is almost exclusively male and female, with a small percentage of non-binary audiences. Here again the parameter is useful in case of a paid campaign, to set it at its best.

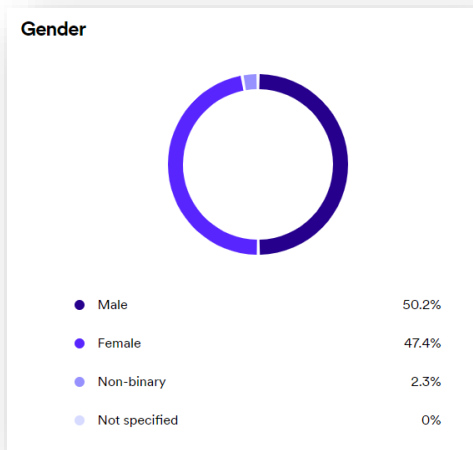


Figure 47 - Gender balance of the podcast's audience

- Finally, an **analysis per age** is provided. As explained in Chapter 2.1.9.2, this last information is particularly relevant to the project's and the activity's end. The main goal of the podcast was to reach a greater audience, especially Millennials and Gen Z (those born between 1981 and 2010). Figure 47 shows that the audience is well split between 18 and over 60 years old, with a peak between 28 and 34 years old, in line with the focus of the podcast activity.

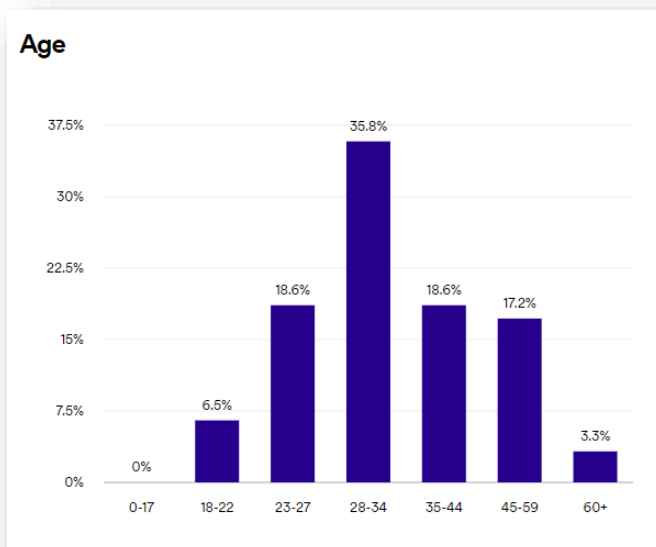


Figure 48 - Age of the podcast's audience

As a conclusion, a deeper analysis of the podcast's first results show that the activity can be considered quite satisfactory and potentially replicable to spread the message of the project and increase its community. However, it is also important to highlight that there is still a big potential of improvement, especially in the geographical and age parameters.

3.2.5 Community Engagement Index: CEI

Considering the analysis of the different impacts (PEI, SEI, WEI) provided in the previous chapters, Table 22 provides a summary of the independent areas contributing to the overall impact of Allthings.bioPRO towards its target audience.

Table 22 - Allthings.bioPRO summary of individual impacts excluding double counting

Impact area	Outreach	Engagement	Index	Index name
Publications	69.641	5.170	7,4%	PEI
Social media	171.050	7.429	4,3%	SEI
Project's Website	110.625	26.713	24,1%	WEI
Podcast	14.752	1.018	6,9%	-
Total	366.068	40.330	11,0%	CEI

Excluding double counting, Allthings.bioPRO reached an **overall outreach of 366,068**, an impressive growth compared to August 2022 when the value reached **204,829**. The **total engagement** almost doubled, from 23,329 of August 2022 to **40.330 of July 2023**. This enabled the project to achieve a **total Community Engagement Index (CEI) of 11%**, representing Allthings.bioPRO ability to engage with its community. 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 Advertisement campaign

The final phase of the project required the activation of an advertising campaign to promote the Mission BioHero mobile game and the Label BioHero app. This promotion is part of the strategy to achieve the main objective of Allthings.bioPRO, namely the European-wide adoption of the two apps. The advertising campaign was activated on the Meta social channels (Facebook and Instagram), which are more in line with the target audience. Four social media clips were made for the promotion, two for the game, two for the application. The video clips showed how the two applications worked and invited the user to download and use them.

The campaign started on 2 May 2023 and ended on 10 July 2023; the period of adv was not continuous but split into 10 short campaigns to have the necessary time to learn the results and reset the parameters accordingly. Indeed, advertising campaigns on social media always need a learning phase, i.e. a period of evaluation and testing of the algorithm according to the criteria entered (target, budget, creativity) to ensure that the activity is as effective as possible. This period is necessary to fix any bugs and adjust the parameters according to the results of the test phase in order to optimise the performance of the official campaign.

Below are the results of the advertising campaign, divided by period, device (Android/iOS) and application. For clarity we explain here the parameters used to define the performances of the campaign, the explanation is taken from the ADS manager of Meta:

- **Click on the link:** the number of clicks, taps or swipes within the AD that redirected to advertiser-specified destinations, on or off Meta technologies.
- **Impressions:** the number of times your ads were seen on screen. Even though they do not lead to an actual action in the present, impressions are important to instil a concept or idea in a person, which could lead to future action.
- **Actions:** the total number of actions taken by people in relation to your advertisements. Actions include interactions, clicks or conversions. In fact, clicks are not the only relevant action to be analysed: forwarding to a friend or sharing in a story are actions that are just as powerful as clicks, because they help spread and distribute the ad.

4.1 Mission BioHero campaigns

1 - Mission BioHero campaign for Android (phase 1 – learning phase)

Period: 2 May - 16 May

The first campaign was about the promotion of the Mission BioHero game for Android. Being the very first phase, the impacts reached are good, with potential of improvement. In total the first campaign was seen by over 43,000 people and got nearly 5,000 interactions, which include almost 900 direct clicks on the advertising. The metrics and the performance of the first campaign are available in Figure 48, while Figure 49 shows the age and gender distribution for this campaign. The most targeted age groups were 25-34 and 35-44, with more men than women.

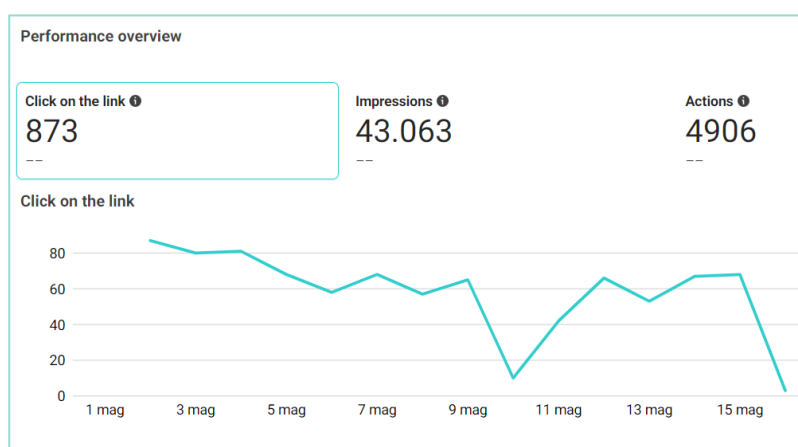


Figure 49 - Performance overview for Mission BioHero, phase 1, Android

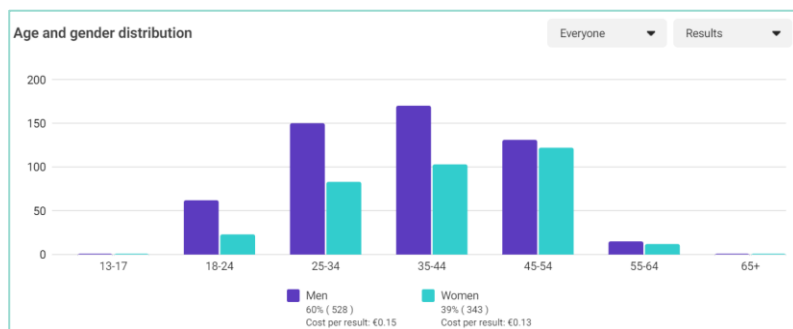


Figure 50 - Age and gender distribution for Mission BioHero, phase 1, Android

2 - Mission BioHero campaign for iOS (phase 1 – learning phase)

Period: 1 May - 17 May

The campaign set up for this period was not executed because Meta did not allow our creativity for iOS without any explanation. Support was promptly contacted, but it took some time before a solution was found to allow the campaign to run on social media. Since the campaign was not accepted by Meta it is not present in the full data recap in Figure 64.

3 - Mission BioHero campaign for iOS (re-do phase 1 – learning phase)

Period: 20 May – 2 June

Once the problems with the campaign for iOS were solved, the learning phase of the campaign of Mission BioHero for iOS finally started. Compared to the one for Android, this campaign was less powerful in terms of global actions and direct clicks, but it reached a larger audience. All age groups were almost equally reached by the campaign. The 18-24 group performed better on iOS than on Android.

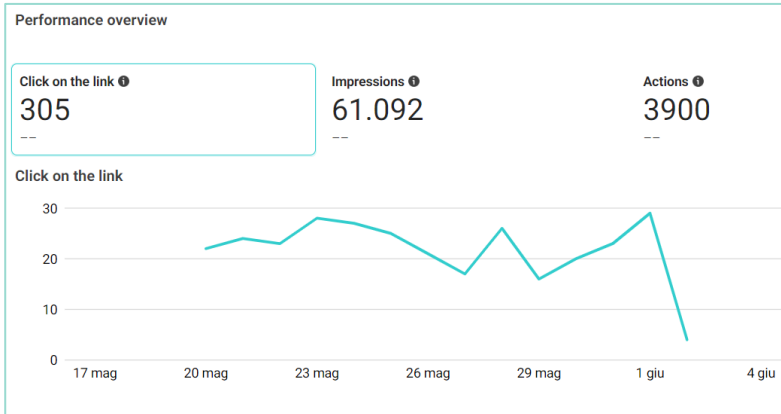


Figure 51 - Performance overview for Mission BioHero, phase 1, iOS

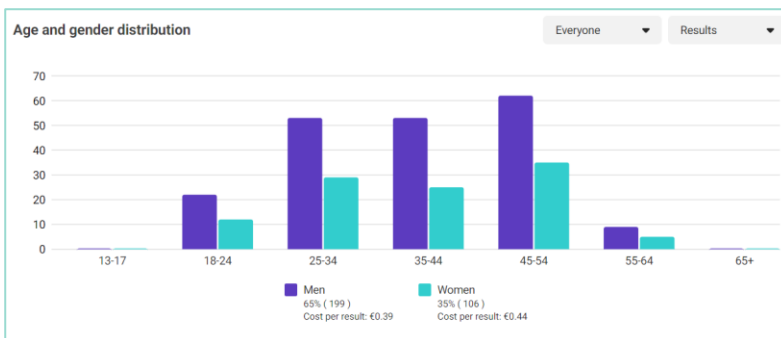


Figure 52 - Age and gender distribution for Mission BioHero, phase 1, iOS

4 - Mission BioHero campaign for Android (phase 2 – change of parameters)

Period: 26 May – 9 June

The learning phase of the campaign of Mission BioHero for Android was essential to reset some parameters that did not perform well: the target audience was narrowed down from the national level to the city level (e.g. the target “Germany” was replaced by different city-targets, such as Berlin and Munich); the age was restricted to between 20 and 54 years, and the creative was slightly modified to better suit the views on social media. Despite the algorithm had to learn the new parameters, the performance slightly improved, as showed by the impressions available in Figure 52. Despite the number of actions decreased the number of direct clicks improved, meaning that the campaign was more effective. The age distribution shifted over the groups 35-54 years old.

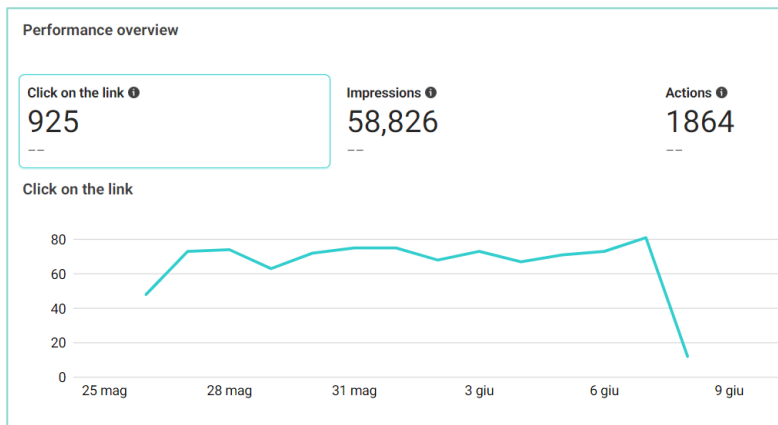


Figure 53 - Performance overview for Mission BioHero, phase 2, Android

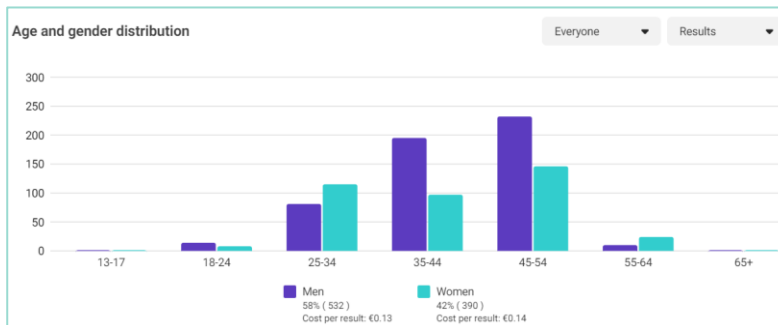


Figure 54 - Age and gender distribution for Mission BioHero, phase 2, Android

5 - Mission BioHero campaign for iOS (phase 2)

Period: 13 June – 10 July

The second and last phase of the campaign Mission BioHero for iOS lasted for the double of the previous phase. Thanks to the learning phase, the performances of the second campaign raised impressively.¹¹ In fact:

- The number of clicks on the link touched nearly 2,000, growing by 225%.
- The impressions raised by 63%.
- The actions grew by 243%, of which 7.4% (1,983) are direct clicks. The age and gender distribution are similar to the previous phase.

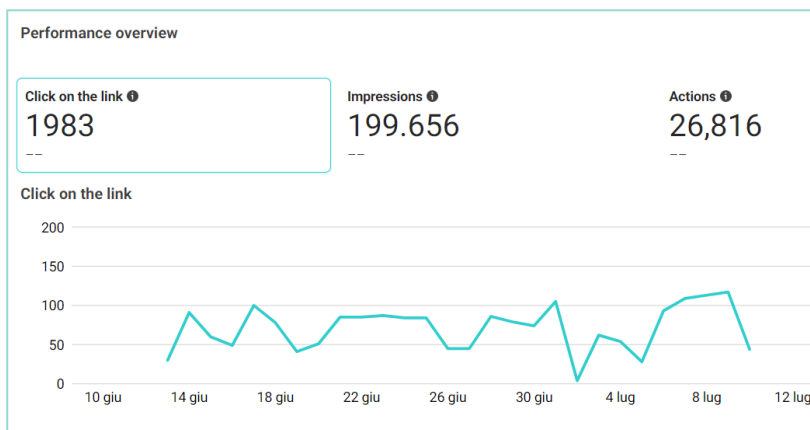


Figure 55 - Performance overview for Mission BioHero, phase 2, iOS

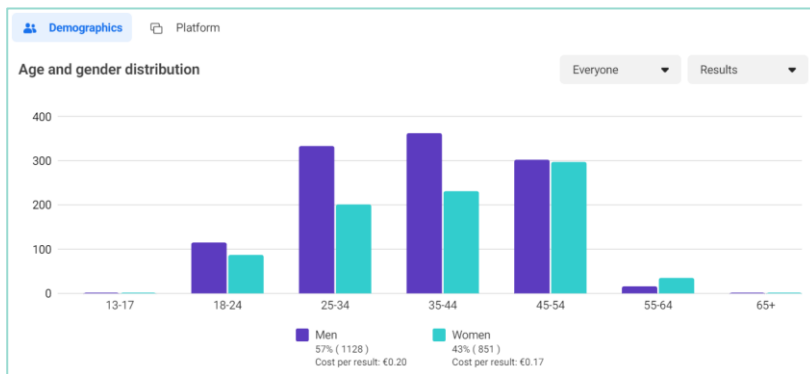


Figure 56 - Age and gender distribution for Mission BioHero, phase 2, iOS

¹¹ In order to be comparable, the data were standardised on the weekly average of the two periods.

6 - Mission BioHero campaign for Android (phase 3)

Period: 13 June – 10 July

As seen for the last iOS campaign, the learning phase was also crucial to improve the performance of the last Mission BioHero's Android campaign. However, the increase in clicks on the link was limited compared to the other actions. In fact

- Clicks on the link improved by 12%.
- Impressions grew by 114%
- Actions improved by 516%, of which 9% (2,609) are direct clicks.

Age and gender remained similar, with a slight increase in the 18-24 age group.

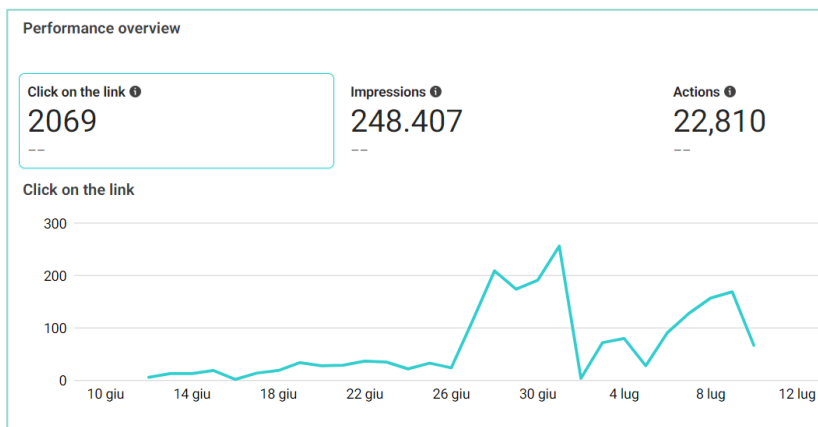


Figure 57 - Performance overview for Mission BioHero, phase 3, Android

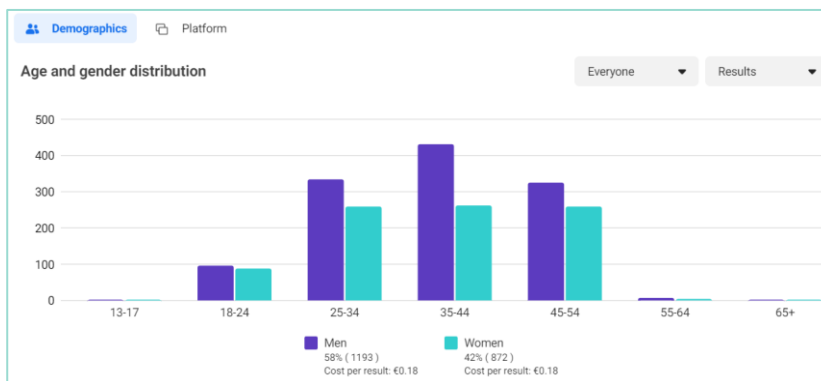


Figure 58 - Age and gender distribution for Mission BioHero, phase 3, Android

4.2 Label BioHero campaigns

7 - Label BioHero campaign for iOS (phase 1 – learning phase)

Period: 25 May – 10 June

The learning phase of the campaign for the Label BioHero app started slightly later, due to the waiting time for the social media clips to be ready for the promotion. The learning phase lasted for 17 days and had a quite poor performance, visible in Figure 58, while Figure 59 shows that the distribution by age and gender which is fairly even, from 18 to 54 years, with a predominance of men. Due to the poor performance, the parameters were reset, both the audience and the age were narrowed, and geographic distribution was changed.

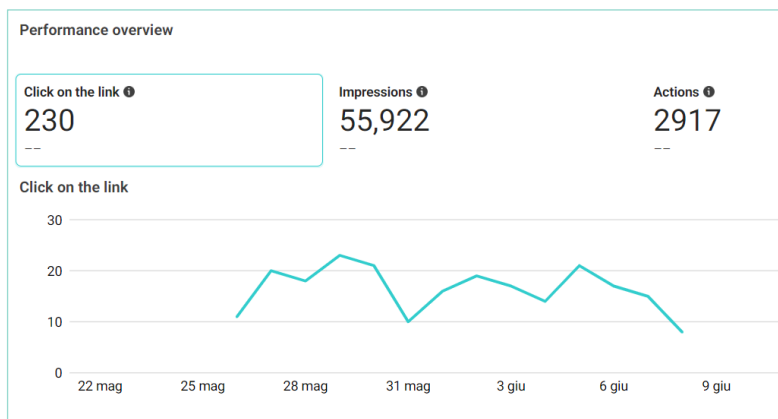


Figure 59 - Performance overview for Label BioHero, phase 1, iOS



Figure 60 - Age and gender distribution for Label BioHero, phase 1, iOS

8 - Label BioHero campaign for iOS (phase 2)

Period: 10 June – 10 July

Similarly to phase 2 for Mission BioHero, the phase 2 of the Label BioHero campaign for iOS showed remarkable improvements. By comparing¹² data from Figure 58 and Figure 60 we can say that:

- clicks on the link improved by 97%.
- Impressions grew by 62%.
- Actions had +95%.

The age distribution (Figure 61) shows that the 35-44 age group performed better, as opposed to the 18-24 age group which was less involved in the campaign.

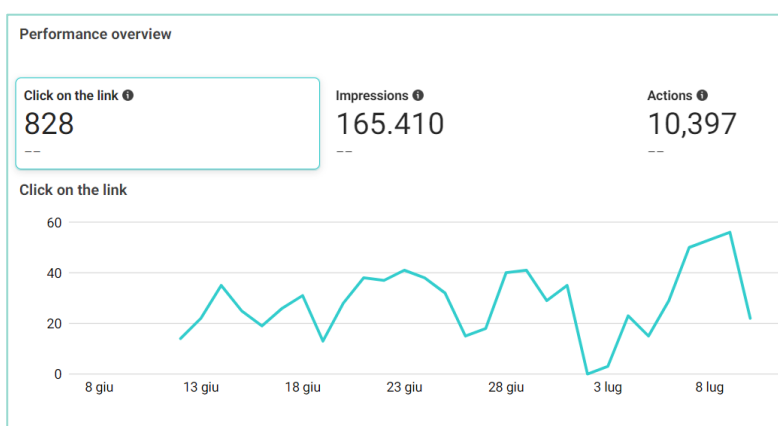


Figure 61 - Performance overview for Label BioHero, phase 2, iOS

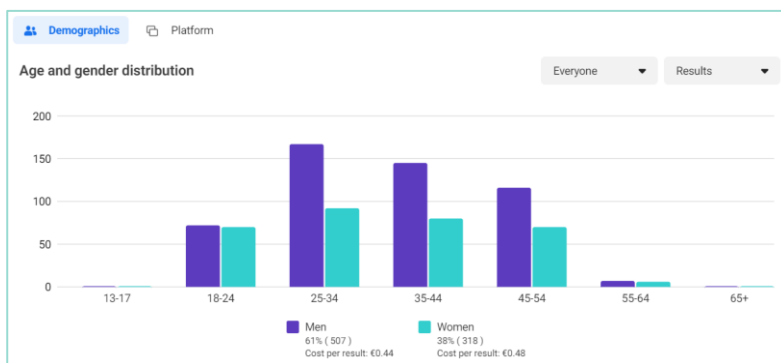


Figure 62 - Age and gender distribution for Label BioHero, phase 2, iOS

9 - Label BioHero campaign for Android (phase 1 – learning phase)

Period: 25 May – 10 June

The campaign set up for this period was approved by Meta, but it did not work, apparently for no reason. Support was promptly contacted, but it was not possible to activate it on time. The campaign is visible in the full data report (Figure 64), with no data included.

¹² In order to be comparable, the data were standardised on the daily average of the two periods.

10 - Label BioHero campaign for Android (phase 2)

Period: 12 June – 10 July

Since we had no data for the first campaign of Android, parameters were set based on the iOS learning phase. Globally, the results exceeded those of iOS, as visible in Figure 62. The age and gender distribution was slightly different, with the group 35-44 achieving the best result and a peak of women in the group 45-54.

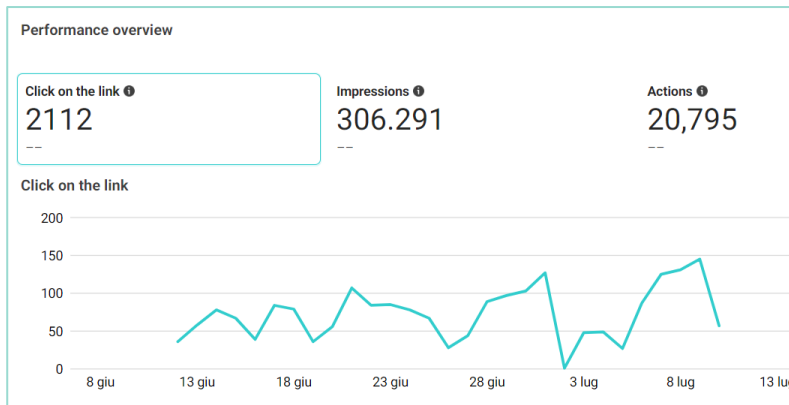


Figure 63 - Performance overview for Label BioHero, phase 2, Android

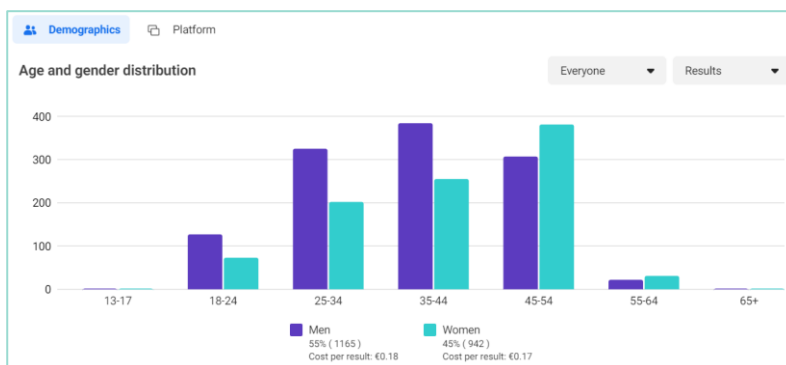


Figure 64 - Age and gender distribution for Label BioHero, phase 2, Android

4.3 Overall analysis

The total coverage of the campaigns was 422,193. This is the total number of people who viewed the social campaign on their devices at least once. The number of impressions includes double views. The links of both apps were clicked 9,325 times.

Regarding the age and gender distribution the analysis shows that the target age for the Label BioHero application ranges from 25 to 55 years, with a predominantly male audience. The Mission BioHero application reaches a wider audience at the age level, comprising people between 18 and 54 years old, with a peak between 25 and 44 years old and a predominantly male audience.

From a geographical distribution point of view, the countries most reached by the campaigns were Italy, Spain, and France, respectively. This was true for both the game and application campaigns. Other countries (or cities within countries) included in the analysis were: Germany, Belgium, The Netherlands, Sweden, and Estonia

(removed from phase 2 because it did not produce any result). Limiting the geographical analysis to the regional level, we see that the target areas that offered a greater overall response were: Community of Madrid, Catalonia, Lazio, Lombardy, Castilla-La Mancha, Île-de-France. This data will be useful for possible future exploitation of the project.

Regarding the viewing device, the campaign was mainly viewed from mobile devices, such as mobile phones or tablets (also given the very nature of the sponsorship, focused on mobile apps).

In terms of economic performance, the cost per result is average; iOS placements required more budget than Android but achieved greater targeting accuracy.

Finally, we can claim that the test phases were crucial in training the algorithm, helping us to modulate the campaign and significantly improving performance in the second sponsorship phase.

N	Countryside	Results	Coverage	Impressions	Cost per result	Amount spent	end
6	Mission BioHero campaign for Android (phase 3)	2069 Click on the link	156.063	248.407	€0.18 By clicking on the L...	€374.97	Jul 10, 2023
5	Mission BioHero campaign for iOS (phase 2)	1983 Click on the link	135,981	199.656	€0.19 By clicking on the L...	€374.99	Jul 10, 2023
10	Label BioHero campaign for Android (phase 2)	2112 Click on the link	184.032	306.291	€0.18 By clicking on the L...	€374.99	Jul 10, 2023
8	Label BioHero campaign for iOS (phase 2)	828 Click on the link	28,491	165.410	€0.45 By clicking on the L...	€374.99	Jul 10, 2023
7	Label BioHero campaign for iOS (phase 1 – learning phase)	230 Click on the link	10,744	55,922	€0.54 By clicking on the L...	€124.97	Jun 8, 2023
4	Mission BioHero campaign for Android (phase 2 – change of parameters)	925 Click on the link	16,920	58,826	€0.14 By clicking on the L...	€125.00	Jun 8, 2023
3	Mission BioHero campaign for iOS (re-do phase 1 – learning phase)	305 Click on the link	13,584	61.092	€0.41 By clicking on the L...	€125.00	Jun 2, 2023
9	Label BioHero campaign for Android (phase 1 – learning phase)	– Click on the link	–	–	– By clicking on the L...	€0.00	Jun 8, 2023
1	Mission BioHero campaign for Android (phase 1 – learning phase)	873 Click on the link	25,985	43.063	€0.14 By clicking on the L...	€125.00	May 16, 2023
Results of 9 campaigns		9325	422.193	1,138,667	€0.21	€1999.91	
Loading...		Click on the link	Account Manageme...	totals	By clicking on the L...	Total spending	

Figure 65 - Full data visualisation of the 9 ad campaigns

5 Contribution of CED activities to the expected impacts

The previous chapters are intended to show the success rate of the project towards its community, by quantifying the level of awareness (identified by the outreach indexes), acceptance and uptake (associated to the engagement indices).

Table 23 shows the different CED activities and their objectives, the target groups addressed, the type of impact that the specific activity aims to achieve, the geographical coverage and finally compares the expected results with the targets reached by M35.

Table 23 - Comparison between CED expected impacts and current results

C, E, D Activity	Target groups	Objectives	Impacts	Coverage	KPIs	Results
Allthings.bioPRO platform (C, E, D)	General public Stakeholders Regional Initiatives	Main entry point to the project, repository of news and contents	Awareness Engagement	European Local	≥10,000 visits during the project	Awareness is expressed by reach, namely by views. The Allthings.bioPRO platform was reached by over 76,800 users. Visits that we consider an expression of engagement (>60 seconds) exceed 27,300
Project social networks (C, E, D)	General public Stakeholders Regional Initiatives	Interaction and engagement with online communities, fostering outreach and engagement	Awareness Engagement	European National Regional Local	A community made of ≥1000 followers on the project's account.	The social community is made of 2,250 followers. Most of them (1,270) were already part of the BioCannDo community. The new community of Allthings.bioPRO numbers 980 followers.
Flyer & other printouts (C)	Stakeholders BBI Policy Makers	Communication materials to be distributed at events	Awareness	European	500 flyers distributed, 1 poster	Due to the pandemic, partners decided not to print flyers for the moment and to use it online (website, webinars, presentations). Both the flyers and the posters have been designed and presented on several occasions.
Press & news releases (D)	Stakeholders, BBI Regional initiatives General public	Project related news for the media	Awareness	European Local	Min. 6 press and news releases outreach ≥ 100s readers via website, social media, information multipliers	4 press releases and 4 news releases have been published and distributed by Allthings.bioPRO. The releases reached 21,413 people and generated 2,068 interactions, with 9.5% of engagement index.
Journalistic articles (C, E)	General public Stakeholders, Media	Independent articles on the project issues focusing on the role of consumers as key actors in the bio-based economy	Awareness Engagement Acceptance	European Global Local	6 articles, outreach of ≥ 100 readers reached via website, social media, & multipliers	6 articles have been published and distributed by ICONS. They reached 21,214 people with 719 interactions (which we can translate as readings) and 3.4% of engagement rate.

Videos and multimedia	Stakeholders BBI Regional initiatives General public	Video production aimed at raising awareness, engagement and participation of specific audience upon objectives, actions and expected results	Awareness Engagement Acceptance	European Regional Local	Short presentation video, Call-to-action video, Short videos for the game, Short social media clips: > 2,000 views on YouTube each	Video activity was intense. The videos available on YouTube (presentation video, co-design video, educational videos, video pills and social media clips) got 3,972 total views on YouTube and social networks. However, for the sake of consistency, we have to inform that the total number of views is much higher thanks to their promotion through news, partners' channels and, especially, thanks to the use for the ad promotion where they got thousands of views.
Participation in external events (D)	Stakeholders, BBI Policy Makers Sister projects and initiatives	Representation of Allthings.bioPRO at various events	Awareness Engagement Acceptance Replication	Local European	At least 2 key events per year officially attended by the project at EU level ≥ 100 participants	Allthings.bioPRO project partners participated in 62 networking, clustering and dissemination events. They reached approximately a total of 21,400 people.
Mobilization of Stakeholder Associations (D)	Stakeholders, End-users	Dedicated communication flow;	Acceptance Replication	Local European	≥ 30 associations contacted to promote Allthings.bioPRO	All partners collaborated on this goal, e.g. the fashion roadshow and those under WP6 got in contact with over 30 organisations. Details are included in PI and FFG reports.

6 Conclusions

This deliverable collects all the dissemination and communication activities performed during the lifespan of Allthings.bioPRO. Also, 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 a summary we can highlight that:

- **Communication channels and materials** (website, socials networks, articles, press releases and consortium posts) 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), 1 co-creation video, 4 videos for the Mission BioHero app, 4 educational videos, 4 social media clips, video pills to promote the apps, several communication cards, 1 power point presentation.
- 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, **13 press and news releases and 6 journalistic articles** 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 **62 networking, clustering and dissemination events**, which allowed them to disseminate Allthings.bioPRO to approximately **21,400 people**.
- ICONS is closely **monitoring** Allthings.bioPRO outreach and engagement indices for several activities: social networks, website, publications, and podcast. The project reached an **overall outreach of 366,068** and produced a total **engagement of 40,330 interactions** from its community. The project got **11% of community engagement level**.
- So far, **Allthings.bioPRO publications** have a total outreach of 69,641 views and a total engagement of 5,170. The Publication Engagement Index reached 7.4%, which is above the average of ICONS' projects of the same area (bio-based projects monitored by ICONS).
- The **website is engaging** with worldwide visitors. The website has a total of 114,375 page views, 88,737 sessions, 76,894 users and 27,349 engaging views (>60 seconds). It got an average of 1.3 pages per session and almost 00.43 minutes of average time spent per session.
- The **multiple-channels social media strategy** worked very 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 (119,008 people reached and 2,902 users engaged, thus 2.4% SEI), **LinkedIn creates smaller but very interactive communities** (42,352 people reached) that engaged with the project's content (3,643 people engaged, thus 8.6% SEI). Facebook, which lost some power in the last years, is the least impactful social media, with an outreach of 9,690, an engagement of 885 and a SEI of 9.1%. This picture is reflected in the **Social Engagement Index**, which, merging the indexes of the three social media, reaches **4.3% of total engagement**, with a total of 171,050 people reached by the social media activity and 7,429 engaged by it.
- The new **podcast** activity can be considered as a **success**. The podcast engaged especially with **young generations** between 18 and 34 years old, with was the first goal of the activity. Also, the geographic location of the audience was quite diverse. The total outreach of the podcast (considering publications, website, social networks, plays and quizzes) exceeds **14,000 people** and the engagement reaches over **1,000 interactions**. The results did not change a lot from those included in the previous deliverable because the best performance is gained next to the publication date of the podcast.
- Finally, ICONS set an **advertisement campaign** on social networks to boost the promotion of the Mission BioHero and Label BioHero applications. The **total coverage** of the campaigns was **422,193** and it gained **9,325 clicks** on the links that redirect to the download of the apps.



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7 Annex 1 – List of dissemination events attended by 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/alpbioeco/en/news-events/alpbioeco-final-public-conference	
5	VA	Remue-méninges - Mode du futur : entre durabilité et connectivité	01/03/2021	20	https://institutfrancais-suede.com/events/remue-meninges-mode-du-futur-entre-durabilite-et-connectivite/	
6		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.
7	FNR	EUBCE	26-29/04/2021			Presentation of Allthings.bioPRO at the FNR stand; project flyer and presentation video were displayed digitally.
8	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.
9	FFG	GROW expo	30/03-30/07			Expo about bio-materials in fashion, explaining the different materials and their origins
10	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
11	FNR, BTG, BSS, ICON S, NG, PI, IBS	Transition2BIO networking call	11/05/2021	20	-	The two projects presented their structure, objectives and main activities. A common ground was established for future collaboration.
12	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
13	FNR	BIOVOICES 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.
14	NURO	Devcom 2021	23/08-29/08 2021	2000	https://www.devcom.global/	Europe's biggest developer's conference, with a target group of developers, technicians, entrepreneurs and policy makers of the digital industry
15	NURO	Match Me If You Can	31/07/2021	100	https://medien.nrw/match-me/	Media Networking Event with a specific focus on the video games industry, networking and dissemination opportunity with a wide range of potential stakeholders from academia.
16	NMF	Co-creation workshop 2 Food Packaging	13/09/2021	8		All registered participants, both citizens and experts, were invited to the second co-creation workshop. They were asked to have a look at the game ideas we selected during the second Focus group-session and the mood boards we developed during that session: - Save Flipper - Packaging Tycoon - Food packaging GO! Participants were also asked to register right away for the co-design workshop in November.

17	BSS	Regional participation approaches on bioeconomy - Together into a sustainable future (Organisor: BIOPRO, GoDanuBio)	27/01/2022	50	https://www.bio-pro.de/projekte/bereich-biooekonomie/godanubio	Networking of all stakeholders and participation are important elements of a functioning "bioeconomisation" in Baden-Württemberg (Germany). At the event, some best-practice examples were presented and the topics were deepened in a panel discussion.
18	BSS	Regional participation approaches on bioeconomy - Together into a sustainable future (Organisor: BIOPRO, GoDanuBio)	27/01/2022	50	https://www.bio-pro.de/projekte/bereich-biooekonomie/godanubio	Networking of all stakeholders and participation are important elements of a functioning "bioeconomisation" in Baden-Württemberg (Germany). At the event, some best-practice examples were presented and the topics were deepened in a panel discussion.
19	BTG	Gamescom	25/08/2022	1000	https://www.gamescom.global/en	At Gamescom, over 500 companies registered +++ AAA companies, indie newcomers and tech companies represent gaming in all its facets both within the industry and at the public at large.
20	FFG	Co-design workshop 2 Fashion & textiles	17/5/2022	5	-	Co-design participants were invited to contribute feedback on the design and layout of the game, as well as reflect on the addition of a mission on 'greenwashing'.
21	FNR	European Bioeconomy Network workshop "Project2Project "	05/10/2022	60	https://eubionet.eu/eubionet-annual-mml-workshop-projects2project-s-outcomes-and-material/	Engaging event were projects exchanged inspirational good practices from H2020 projects to maximise the exploitation of lessons learnt and heritage of H2020 bioeconomy projects, presented the objectives of newly funded Horizon Europe projects in the beioneconomy. The workshop facilitated the collaboration among ongoing, concluded and recently funded projects. The projects defined common action plans to improve the quality and impact of projects' activities for the next months.
22	FNR	Knowledge Centre for Bioeconomy workshop "Exploring foresight scenarios for the	05/10/2022	49	https://knowledge4policy.ec.europa.eu/bioeconomy_en	It was a highly interactive workshop were the future of the bioeconomy based on different foresight scenarios, published by the Knowledge Centre for Bioeconomy in 2021 were explored by playing an seerious board game. While playing

		EU bioeconomy towards sustainable development and climate neutral economy".				the game the participants shared and discussed their experience and vision with other participants and experts working in the bioeconomy.
23	FNR	EU Bioeconomy Conference	06.10 - 07.10.2022	1671	https://eu-bioeconomy-conference-2022.b2match.io/page-2091	On day one, the focus was primarily on biomass from agriculture and forestry. Also discussed was how the development of the bioeconomy can be better supported in the individual regions and what changes are needed. Another point was the engagement of the youth. Fifteen youth ambassadors from different EU countries presented themselves and appealed to politicians, decision-makers and other participants to involve the next generation more in decision-making. They also discussed how to better prepare the next generation for the upcoming changes and the bioeconomy through education and qualifications. Day two focused on the bioeconomy in the context of European food and energy security and the path towards a climate-neutral and biodiversity-rich world.
24	VA	Almedalen	4 July 2022	60	https://va.se/kalendarium/va-i-almedalen-2022-forskning-demokrati-och-jubileumsfirande/	Almedalen Political Week is Sweden's main stage for policy discussions. Every year VA Public & Science provides an arena for dialogue on research and democracy. This year's focus was on how to broaden access to knowledge and make research and science accessible to everyone. The AllthingsbioPro cocreated game development was presented and showcased at the event.
25	VA	Factory Wisskomm	29-sep-22	20	https://www.bmf.de/SharedDocs/Downloads/de/2022/2209-programm-factory-wisskomm.pdf?__blob=publicationFile&v=3	Participation in an Insight workshop. By using Planetary Health as an example, we showcased how elements from science engagement can be used to help overcome global challenges. Presentation of the ATB project focusing on stakeholder engagement and the co-creation process for the game development.
26	VA	VA 20 years celebration	12 October 2022	200	https://va.se/kalendarium/va-da-va-nu-	The annual VA day gathers the science communication and science engagement community in Sweden.

					vart-han-vi-firar-20-ar-av-dialog/	This year also marked the 20 years celebration of VA therefore a special focus was set on our dialogue and co-creation activities. Participants had the possibility to try the Mission BioHero game and learn more about the project.
27	PI	Data Value Labs - Kids & Schools	27/04/2022	8	https://www.allthings.bio/events/data-value-labs/	Hybrid sessions aiming to (a) give stakeholders a sneak peek of the game and app design and their user friendliness and (b) to facilitate an in-depth multi-stakeholder discussion on how to ensure that data and insights coming out of the tools are relevant for different stakeholder groups within the uptake community.
28	PI	Data Value Labs - Food Packaging	28/04/2022	5		
29	PI	Data Value Labs - Fashion & Textiles	28/04/2022	3		
30	PI	Data Value Labs - Jobs & Careers	29/04/2022	1		
31	PI	Data Value Meetings	05/2022 - 07/2022	8	-	Additional bilateral meetings with uptake stakeholders to allow for more in-depth discussions on the game and app functionalities and on how these outputs could be of value for their work as policymakers, researchers, industry actors or CSOs in the bioeconomy field.
32	IBS	Mission BioHero game testing workshops	13.12.2022 - 16.02.2023	53	https://www.allthings.bio/learning-by-playing-allthings-bio-turns-people-into-bio-heroes/	Game and app-testing workshops helped to receive valuable feedback about the aspects of the game to further improve the beta version of it. At the same time participants have become aware of the game about bioeconomy and the possibilities that it offers, what makes the outreach of the game wider and further helps to communicate the concepts of bioeconomy to wider audience.
33	PI	CAGGTUS Leipzig Gaming Festival	14/04/2023 - 15/04/2023	100	https://www.caggtus.de/en/	ATBPro had a booth in the Entertainment Area of the festival to promote awareness of Mission BioHero among the gaming community and boost downloads.
34	PI	ChangeNOW	25/05/2023 - 27/05/2023		https://www.changenow.world/	PI attended this event in Paris to create connections with stakeholders in the field of sustainability/circular and bioeconomy who could participate in the Roadshow meetings and become part of the project network. During the event, PI also aimed to promote and disseminate the game and the app.

35	PI	Circular Economy Hotspot	29/05/2023 - 01/06/2023		https://www.dublincirculareconomyhotspot.com/	PI attended this event in Dublin to create connections with stakeholders in the field of sustainability/circular and bioeconomy who could participate in the Roadshow meetings and become part of the project network. During the event, PI also aimed to promote and disseminate the game and the app.
36	PI	GreenTech Festival	15/06/2023 - 16/05/2023		https://greentechfestival.com/	PI attended this event in Berlin to create connections with stakeholders in the field of sustainability/circular and bioeconomy who could participate in the Roadshow meetings and become part of the project network. During the event, PI also aimed to promote and disseminate the game and the app.
37	BSS	Global talents for local transformation	10/02/2022	10		A workshop at University of Vechta for international students
38	BSS	3rd World Conference on Higher Education	18.-20.05.2023	700	UNESCO World Higher Education Conference 2022 (WHEC2022) Guni Network	The third World Higher Education Conference (WHEC2022) aims at reshaping ideas and practices in higher education to ensure sustainable development for the planet and humanity.
39	BSS	9th Living Knowledge Conference	29.6.-1.7.22	100	https://livingknowledge.org/wp-content/uploads/2022/11/Summary-of-LK9-conference-2022.pdf	Poster: Co-creating and co-designing a serious game about bioeconomy with citizens, Workshop 'Working with Personas'
40	BSS	Akademie für internationale Bildung	25/07/2022	45		Presentation of Bonn Science Shop projects, engagement and co-creation methodologies, using ATB as example
41	BSS	EU Bioeconomy Conference 2022	06.-07.10.2022			
42	BSS	13. Bonner Wissenschaftsnacht	12.-13.05.2022	200	https://www.bonner-wissenschaftsnacht.de/start/	Presentation of Bonn Science Shop projects, engagement and co-creation methodologies, game testing of App
43	TEEC	Demo testing Mission BioHero	16/06/2022	7		
44	BTG	World Bio Markets	10-11/05/2023	350	https://www.worldbiomarkets.com/	World Bio Markets is the leading international business event for the global bioeconomy community. 2 days, 350+ attendees, 30+

						nationalities, 1,000's of 1-2-1 commercial meetings, 50 conference sessions, 100 world class speakers and endless networking opportunities
45	BTG	Online thematic session, Lectorenplatform Biobased Economy	01/06/2023	20	https://www.mnext.nl/over-mnext/lectoraten/	teachers from the Netherlands. This platform was founded in 2018, at the same time as other lector platforms and with the support of the SIA, the funder of 'HBO' research. Lector platforms have the mission to participate in discussions about agendas and innovation policy of the ministries and top sectors, the National Science Agenda, Green Deals and regions.
46	FNR	Games meet Umweltbundesamt - Networking, Austausch und Wissensvermittlung rund um Computerspiele und Umwelt. Vor Ort im Umweltbundesamt	27/04/2023	60	https://www.eventbrite.com/event/games-meets-umweltbundesamt-tickets-356504102367	During the CAGGTUs (the Leipzig Gaming Festival) Nurogames was invited to attend this networking event. Due to other commitments of NG, FNR took part in this event instead.
47	FNR	Biobased Industry Consortium Workshop: "How to facilitate consumer choices towards affordable, sustainable products?"	22/06/2023	20	internal workshop	Participants mainly from EC services. The workshop was part of a series of exchanges organised by BIC targeting EU Policy representatives and was mainly attended by EC representatives from different DG. Participants looked during the workshops into consumer information, consumer choices and demand and aspects of end of life of bio-based products and how to meet consumer expectations.
48	NMF	Guest lecture CE and game	15/06/2023	120	Leerlingen van het Carolus Clusius College redden de wereld in de game Mission Biohero - Natuur en Milieu Overijssel	120 high school students were introduced to the game over a number of weeks by their teacher. They could play the game when their geography classes were finished early. At July 15th the NMF taught the students about circular economy, and related this to the app, via a guest lecture. The student that ranked the highest received a price.
49	VA	Skogsindustrierna	18/04/2023	15	https://ui.ungpd.com/Events/31c0cdd5-ac40-4b13-a80e-	Conference that connects into the national industry-wide venture "Framtidsresan" - Future strategy. The meeting, which replaces the

					ef937a7c576a?AccountId=c9ea1cb0-a0fd-4661-a700-0e64bed55198&ContactId=3f8fc112-ca64-4f27-afef-b4f144fb22f1&IssueId=c968e1fc-c17c-4c84-a53a-49c4fda41e44&ir=acd90c9d-c292-44de-8bfe-18a2a58498fb	Forum for Bioeconomy, will focused on how the forestry industry - to an even greater extent - can contribute to solving our societal challenges.
50	VA	Almedalen	28 June 2023	200	https://almedalsveckan.info/om-almedalsveckan and https://almedalsveckan.info/program/67063	Almedalen Political Week is Sweden's main stage for policy discussions. Every year VA Public & Science provides an arena for dialogue on research and democracy. This years focus was on how to broaden access to knowledge and make research and science accessible to everyone. The AllthingsbioPro was presented and showcased at the event and marketing materials was spread.
51	VA	Cirk Eko - Mingel	20 June 2023	10	https://ui.ungpd.com/Events/f5dcd228-3bc6-4131-aff2-a09094957f97?fbclid=IwAR1JCNqZn-CTdDuzuSy8rf1JIYWarC5vT51ZOYsGrNrUm-rEP-xvzddwuLE	CirEko is Sweden's broadest network for businesses that are circular. We took part in their Summer mingle for networking and marketing of the game.
52	FFG	GROW Travelling expo (Fashion Roadshow, location 1)	21-24/02/23	300		Travelling expo about bio-materials in fashion, explaining the different materials and their origins. The exhibition went to a technical high school in Denmark (Velje Tekniske Gymnasium) which has dedicated courses on fashion, textiles and sustainability, educating and inspiring the next generation of fashion professionals.
53	FFG	GROW Travelling expo (Fashion	13-25/03/23	250	https://www.metropolitan.hu/gall	Travelling expo about bio-materials in fashion, explaining the different materials and their origins. The

		Roadshow, location 2)			ery/grow-pop-up-kiallitas	exhibition went to an arts university in Budapest (Metropolitan University, METU) which has dedicated courses on fashion design and sustainable development, educating and inspiring the next generation of fashion professionals.
54	FFG	GROW Travelling expo (Fashion Roadshow, location 3)	04-13/07/23	150	https://fashionweek.berlin/kalender.html?tx_news_pi1%5BoverwriteDemand%5D%5Bdays%5D=13&tx_news_pi1%5BoverwriteDemand%5D%5Bmonths%5D=07&tx_news_pi1%5BoverwriteDemand%5D%5Byears%5D=2023&cHash=5ff3442eae22a93f1261165a63895175	Travelling expo about bio-materials in fashion, explaining the different materials and their origins. The exhibition went to a sustainable fashion innovation hub in Berlin (VORN Hub) during Berlin Fashion Week, working in collaboration with a German fashion design school which has dedicated courses on sustainability (Akademie Mode & Design), educating and inspiring the next generation of fashion professionals.
55	IBS	BIOMAJANDUS KOOLITUNDIDESSE - valminud on interaktiivne õppemäng "Mission BioHero" ja ökomärgiseid lugev mobiilirakendus (Bioeconomy into school classes!), organised by TEEC	25/05/2023	10		Teachers from grades II and III were invited to a seminar on the bioeconomy, which opened up the world of endless possibilities behind the concept of bioeconomy and provided examples to introduce the topic in class. The seminar introduced the new free-to-play interactive phone game Mission BioHero.
56	BSS	CU2EXPO 2023	05.-08.06.2023	20	https://ec.lakeheadu.ca/c2uexpo/welcome	informal exchange on Co-creating and co-designing a serious game about bioeconomy with citizens
57	TEEC	Student's Science Festival 2023	11-12/04/2023	3000		The students' science festival is a big event held every spring to celebrate science and young people in science. TEEC participated at the pop-up exhibition area and provided some fun activities for the participants related to environmentally friendly behaviour. Information about the

					<p>upcoming Mission BioHero and Label App was introduced and participants could learn about where their clothes were coming from and what is the environmental footprint of different textiles.</p> <p>https://miks.ee/teadusfestival</p>
58	TEEC	Seminar: Bioeconomy for school lessons - the interactive Mission BioHero game and BioLabel app	25/05/2023	21	<p>TEEC organised a seminar for schoolteachers. AllthingsBioPRO project was introduced, participants had the possibility to test the game and app. There were also practical workshops for teachers to inspire them and give them ideas how to integrate the bioeconomy topic into their school lessons.</p> <p>https://www.tartuloodusmaja.ee/uritused/seminar-biomajandus-koolitundidesse-opetajatele-25-05-2023/</p>
59	TEEC	Eco-Schools Conference	5-6/06/2023	150	<p>Annual Conference of school teachers who have joined the Eco-Schools network. In Estonia over 200 schools, kindergardens and hobby schools are part of this network. Eco-Schools programme promotes sustainable and environmentally friendly mindset among schools, children and their families. AllThingsBioPro team attended the event with a special area where the project results, especially the Mission BioHero game, BioLabel app and the upcoming teachers handbook was promoted. The event was successful and the participants were interested to start using the results of the project at their school and during classes.</p>
60	TEEC	Public festival "Autovabaduse puiestee" (Car-Free Avenue)	01/07/2023	10000	<p>"Car-Free Avenue" is an annual festival in Tartu, Estonia (https://tartu.ee/et/autovabaduse-puiestee), 29.06.2023-6.08.2023. The focus is to raise awareness on environmental friendly behaviour and promote sustainable lifestyle. TEEC took part and promoted the project results. A special area was devoted to environmental issues and project results and game + app was promoted. Project team showed the game and app on their phones and the people had the possibility to download the game or app via QR</p>

						codes which were visible on posters. Fliers were also disseminated to people passing by.
61	TEEC	Public festival "Autovabaduse puistee" (Car-Free Avenue)	8/07/2023			
62	TEEC	Public festival "Autovabaduse puistee" (Car-Free Avenue)	22/07/2023			

8 Annex 2 – Editorial products released by partners

No	Partner	Publication Date	Type	Title	URL associated to the specified Press/News Release
1	ICONS	21/09/2020	PRESS RELEASE	Allthings.bioPRO kicked off virtually	https://cordis.europa.eu/article/id/422313-21-september-2020-allthings-bioprop-kicked-off-virtually
2	PI	30/11/2020	PRESS RELEASE	Allthings.bioPRO: Of Divine Beings and Saving the Earth	www.prospex-institute.org/allthings-bioprop
3	BSS	19/10/2021	PRESS RELEASE	Allthings.bioPRO: Of Divine Beings and Saving the Earth	https://wilabonn.de/aktuelles/pressemitteilungen/1046-allthings-bioprop-von-goettlichen-wesen-und-der-rettung-der-erde.html
4	ICONS	19/04/2021	PRESS RELEASE	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	Press release	FNR News - Project presentation video release	https://international.fnr.de/service/news/archive/archive/allthingsbioprop-project-video-released
6	FNR	08/04/2021 18/03/2021 15/03/2021	Press release	Bioeconomy? Easy as can be with AllThings.Bio	https://www.eubce.com/bioeconomy-easy-as-can-be-with-allthings-bio/ https://international.fnr.de/service/news/archive/archive/bioeconomy-easy-as-can-be-with-allthingsbio https://cordis.europa.eu/article/id/429438-bioeconomy-easy-as-can-be-with-allthings-bio
7	FNR	22/03/2021	Press release	Bioökonomie? So einfach wie nie mit AllThings.Bio	https://news.fnr.de/fnr-pressemitteilung/biooekonomie-so-einfach-wie-nie-mit-allthingsbio
8	FNR	03/05/2021	Press release	Bioökonomie im Alltag	https://www.fnr.de/presse/pressemitteilungen/archiv/archiv-nachricht/biooekonomie-im-alltag
9	ICONS	14/07/2021	ARTICLE	How citizens can become co-creators of sustainable food packaging	https://www.allthings.bio/how-citizens-can-become-co-creators-of-sustainable-food-packaging/
10	NMF	23/07/2021	News release	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/ https://servicepunt-circulair.nl/nieuws/hoe-burgers-

					duurzame-voedselverpakkingen-kunnen-helpen-vormgeven-2/ https://www.nmu.nl/nieuws/hoeburgers-duurzame-voedselverpakkingen-kunnen-helpen-vormgeven/
11	VA	10/11/2022	NEWSLETTER	Try the game that makes you a sustainability hero	https://app.rule.io/browser/campaign/c/n_9mvs
12	NMF	30/11/2022	ARTICLE	Gezocht: testers voor serious game Allthings.bioPRO	Gezocht: testers voor serious game AllThings.bioPRO - Natuur en Milieu Overijssel
13	ICONS	21/01/2022	ARTICLE	The power of youth: Educating young people in the move to a sustainable future	https://www.allthings.bio/the-power-of-youth-educating-young-people-in-the-move-to-a-sustainable-future/
14	ICONS	15/02/2022	OTHER	Podcast – Episode 1: What’s the bioeconomy?	https://www.allthings.bio/podcast/allthings-bio-whats-the-bioeconomy/
15	ICONS	21/02/2022	NEWS RELEASE	It’s time to pal up with the bioeconomy	https://www.allthings.bio/its-time-to-pal-up-with-the-bioeconomy/
16	ICONS	12/05/2022	ARTICLE	How the pandemic highlighted bioplastic benefits	https://www.allthings.bio/how-the-pandemic-highlighted-bioplastic-benefits/
17	ICONS	14/04/2022	OTHER	Podcast – Episode 2: The intricate story of food packaging	https://www.allthings.bio/podcast/podcast-episode-2-the-intricate-story-of-food-packaging/
18	ICONS	20/04/2022	OTHER	Podcast – Episode 3: Don’t say green fashion, say bio-circular fashion	https://www.allthings.bio/podcast/podcast-episode-3-dont-say-green-fashion-say-bio-circular-fashion/
19	ICONS	27/10/2022	NEWS RELEASE	Learning by playing: AllThings.Bio turns people into bio-heroes	https://www.allthings.bio/learning-by-playing-allthings-bio-turns-people-into-bio-heroes/
20	ICONS	16/05/2022	OTHER	Podcast – Episode 4: Can toys ever be green and safe?	https://www.allthings.bio/podcast/podcast-episode-4-can-toys-ever-be-green-and-safe/
21	ICONS	24/11/2022	ARTICLE	Working in the bioeconomy: make a job out of your environmental engagement	https://www.allthings.bio/working-in-the-bioeconomy-make-a-job-out-of-your-environmental-engagement/
22	FNR	03/03/2023	ARTICLE	The birth of the BioHero	https://sockets-cocreation.eu/societal-engagement-story-the-birth-of-the-biohero/
23	FNR	23/05/2023	PRESS RELEASE	Spielerisch zum Bio-Helden werden mit Allthings.BioPRO	https://www.fnr.de/presse/pressemittelungen/aktuelle-mitteilungen/aktuelle-nachricht/spielerisch-zum-biohelden-werden-mit-allthingsbiopro
24	FNR	05/05/2023	NEWS RELEASE	Allthings.bioPRO's serious game and app now available to download	https://international.fnr.de/press/news/allthingsbiopros-serious-game-and-app-now-available-to-download

25	FNR	20/06/2023	ARTICLE	Jetzt kann man spielerisch zum Bio-Helden werden	https://www.ima-agrar.de/unterwegs/nachrichten/1123-jetzt-kann-man-spielerisch-zum-bio-helden-werden
26	FNR/BTG	01/03/2023	NEWS RELEASE	Is organic cotton actually more sustainable than conventional cotton?	https://www.allthings.bio/is-organic-cotton-actually-more-sustainable-than-conventional-cotton/
27	FNR/BTG	09/05/2023	NEWS RELEASE	The importance of labels and how to know which ones to trust	https://www.allthings.bio/the-importance-of-labels-and-how-to-know-which-ones-to-trust/
28	ICONS	18/05/2023	ARTICLE	Make it fun, make it easier: when games help learn the bioeconomy	https://www.allthings.bio/make-it-fun-make-it-easier-when-games-help-learn-the-bioeconomy/
29	ICONS	19/07/2023	OTHER	How is the bioeconomy changing our lives?	https://www.allthings.bio/pageflow/how-is-the-bioeconomy-changing-our-lives/
30	NMF	26/06/2023	Article	Leerlingen van het Carolus Clusius College redden de wereld in de game Mission Biohero	Leerlingen van het Carolus Clusius College redden de wereld in de game Mission Biohero - Natuur en Milieu Overijssel
31	NMF	22/05/2023	Article	Game ON! De Serious Game over de bio-economie is live	https://www.natuur-en-milieu-overijssel.nl/nieuws/allthings-bio-game-en-app/
32	NMF	26/05/2023	Article	Week zonder afval: deze apps helpen je op weg	Week zonder Afval: deze apps helpen je op weg - Natuur en Milieu Overijssel
33	VA	22/06/2023	Newsletter	Play and learn more about bioeconomy	https://app.rule.io/browser/a/n_2rc/d/n_b9k0/di/n_rt/s/n_3c8tjk/e/n_1ag6e5/tt/n_rwndn2
34	VA	04/07/2023	Newsletter	Using fun games to teach serious subjects	https://app.rule.io/browser/a/n_2rc/d/n_b9t9/di/n_rt/s/n_1c30g2/e/n_1ah3q0/tt/n_rx9m9o
35	FFG	13/02/2023	PRESS RELEASE	The Fashion For Good museum and AllThings.BioPRO take “GROW” exhibition on tour	https://www.allthings.bio/the-fashion-for-good-museum-and-allthings-biopro-take-grow-exhibition-on-tour/
36	BSS	19/06/2023	PRESS RELEASE	BioHero – Spielerisch zum nachhaltigen Job oder Lebensstil	https://wilabonn.de/aktuelles/pressemitteilungen/1125-biohero-spielerisch-zum-nachhaltigen-job-oder-lebensstil.html
37	BSS	19/06/2023	NEWSLETTER	JETZT ERHÄLTlich: Smartphone-Spiel BioHero	https://98166.seu2.cleverreach.com/m/14514724/0-d6bb10225107e835c9ce47e340fe95c19774a65f43bb4e4fd4bbf4807643719bdc97ced52d71ed297220bb442dc49fbae
38	TEEC	11/05/2023	News release	Invitation + info to seminar: Bioeconomy for school lessons - the interactive Mission BioHero game and BioLabel app	https://www.tartuloodusmaja.ee/urited/seminar-biomajandus-koolitundidesse-opetajatele-25-05-2023/

39	TEEC	19/06/2023	NEWSLETTER	Mission BioHero game is ready!	Link to newsletter: https://tartuloodusmaja.smai.ly/browser/6CB3nlwzFnDiFeTBLdk7nS0J-DTx5PB5Swegp8fzot0a3eIOSHOT5pWHmDXOxsimzD_SxdmsD8zUhBrAHOIc4MeYJy8HQRFsyqNcHHJ_CgSs30pg2IbO692bUB3yEGqtqwnny0XqkkIXDcO2kykixvyIdGk7t1qSNQc464L7sQ/
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