D6.5 Ambassador Programme for Early Adopters

White Research (WR)

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Abstract	The D6.5 report provides an overview of the iPRODUCE Ambassador Programme, which aimed to engage lead users in the local communities of the cMDFs. Starting from the theoretical background of lead users and open innovation ambassadors, the report presents the scope and objectives of the programme together with the methodology adopted in the context of collaborative manufacturing. The results of the programme are presented per cMDF, highlighting the main incentives, contributions and challenges encountered.

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Executive Summary

D6.5 presents an overview of the scope and results of the Ambassador Programme of iPRODUCE, implemented during the project's lifetime. It is built upon knowledge gained through project activities, as well as the partners' knowledge and information on engaging lead users from their local communities.

Learning from lead user innovators, also known as ambassadors, can yield significant commercial benefits for producers and manufacturers. This is why forward-thinking corporations have been actively collaborating with free innovators and their communities in the process of developing new products and services. This report explores the key concepts and implications of lead user innovation and open innovation ambassadors as well as the scope and objectives of the Ambassador programme of PRODUCE.

The employed methodology for the implementation for the Ambassador Programme of iPRODUCE involves three subsequent steps. First, the process for identifying potential ambassadors is presented together with the relevant criteria defined based on the literature and the project findings. Then, we describe the main methods deployed for the engagement of ambassadors, including the provision of incentives tailored to the local contexts, as well as the organization of consultation workshops. Finally, a reporting tool for the proper monitoring of the activities has been developed and is provided in the Annex.

The programme managed to successfully engage lead users in the local communities of the cMDFs, reaching a total of 27 ambassadors and 11 consultation workshops. Overall, the ambassadors played a key role in specific pilot activities, providing ideas and feedback for the definition of the cMDFs and for testing the OpIS platform. Sustaining ambassadors' engagement throughout the project proved to be the most challenging aspect, especially while the platform was in the development stage. To overcome this, measures such as emphasizing the social aspect, offering networking opportunities, providing mentorship, granting access to physical spaces, and involving ambassadors in project events were implemented. These incentives helped maintain engagement and the programme successfully engaged dedicated ambassadors who significantly contributed to project improvement, expanding the reach and impact of iPRODUCE.

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Abbreviations

CERTH	Center for Research & Technology Hellas (iPRODUCE project partner)
cMDF	Collaborative Manufacturing Demonstration Facilities
DIY	Do It Yourself
E@W	Energy@Work (iPRODUCE project partner)
FIT	Fraunhofer Institute for Applied Information Technology (iPRODUCE project partner)
MMC	Manufacturers, Makers and Consumers
MSB	MakerSpace Bonn e.V. (iPRODUCE project partner)
OpIS	Open Innovation Space
STEM	Science, Technology, Engineering and Mathematics
TS	Trentino Sviluppo SPA (iPRODUCE project partner)
VLC	Océano Naranja SL (iPRODUCE project partner)

1. Introduction

1.1. Purpose and structure of the deliverable

The purpose of D6.5 is to present an overview of the scope and results of the Ambassador Programme of iPRODUCE, as it was implemented during the project lifetime. To do so, it builds upon knowledge gained through conducted project activities, as well as the partners' knowledge and information on engaging lead users from their local communities.

This report is structured in 5 chapters as follows:

- **Chapter 2** describes the background and objectives of the deliverable
- **Chapter 3** presents the methodology followed for the implementation of the programme
- **Chapter 4** presents the results of the ambassador programme per cMDF
- **Chapter 5** briefly summarises the main conclusions

1.2. Connection with other deliverables

Due to the horizontal character of the Ambassador program, this deliverable is connected with several work packages and tasks of the project. In detail, the content of this deliverable is linked to the outcomes of several project activities which are:

- Perceptions, preferences and intentions with respect to collaborative manufacturing and the maker movement (T2.1 Users and stakeholders Requirements, Perspectives and Motivation);
- Lead user identification, role of lead users in social manufacturing (T4.4 Lead-user Identification, Match-Making and Agile Network Creation);
- Evaluation from the testing of the iPRODUCE activities, tools and relevant material (T9.6 Pilots Evaluation and Socio-economic Assessment);
- Promotional material and communication channels of iPRODUCE (T10.2 iPRODUCE Identity, Promotion Material and Digital Presence).

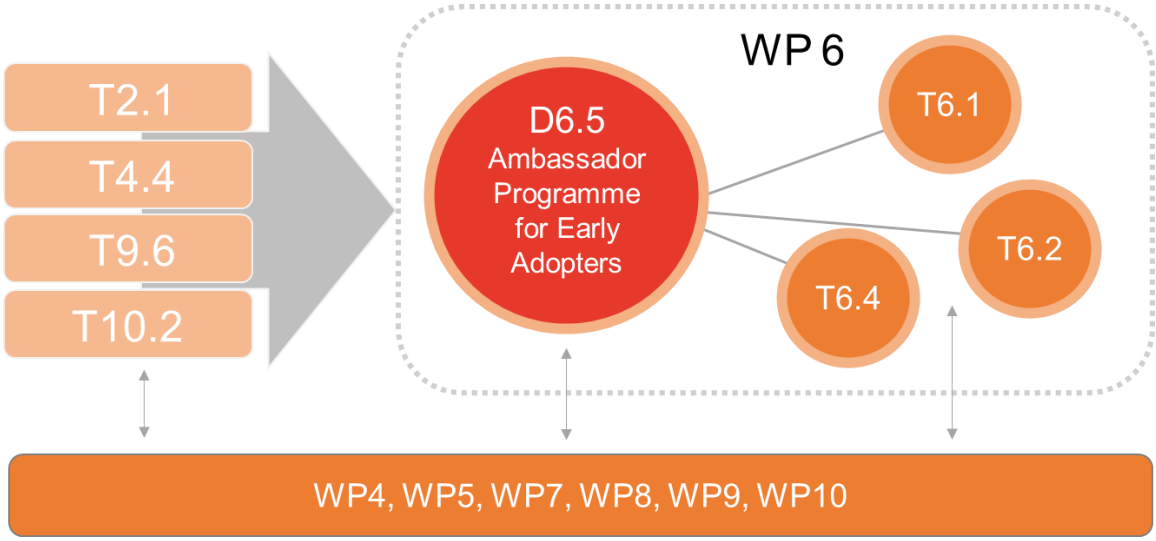


Figure 1 Interconnections between D6.5 and iPRODUCE workplan

These tasks act complementary for the Ambassador program and their respective needs and motivations. At the same time, D6.5 is directly linked with all the activities of WP6, as they altogether target the engagement of makers and consumers in open innovation and collaborative manufacturing activities. These activities are:

- T6.1 Ecosystem Establishment and Engagement
- T6.2 Mobile App for Social Media-Enabled Consumers & Makers Feedback
- T6.4 Open Competitions on Consumer Products Innovation Challenges

Finally, the feedback linked to specific tools and features of the OpIS platform has been directly communicated to the responsible technical developers. This feedback has been taken into consideration in the subsequent releases of the tools, in order to better address the needs of the end users.

1.3. Procedures and management

The report “D6.5 Ambassador Programme for Early Adopters” is drafted by White Research (WR) and approved by iPRODUCE project coordinator AIDIMME. It is based on the information provided by partners involved in the cMDFs and, namely:

- AIDIMME, LAGRAMA and VLC for the Spanish cMDF
- FIT, MSB and ZENIT for the German cMDF
- Excelcar, FabLab Vosges and Materalia for the French cMDF
- TS and E@W for the Italian cMDF
- AidPlex and CERTH for the Greek cDMF.

The programme has been developed by WR with the support of the cMDFs based on insights gathered through the previous iPRODUCE research as well as on the knowledge and experience that the iPRODUCE partners hold regarding their local communities.

It is important to note that, by the time the Ambassador programme was developed, the Danish cMDF was at the process of finalizing their participation in the project, and, therefore, they have not been involved in the relevant task activities.

2. Background and objectives

Learning from lead user innovators, also known as ambassadors, can yield significant commercial benefits for producers and manufacturers. This is why forward-thinking corporations have been actively collaborating with free innovators and their communities in the process of developing new products and services. The lead-user theory and open innovation ambassador theory form the theoretical foundation for the iPRODUCE Ambassador programme, with a focus on co-creation and social manufacturing. This chapter explores the key concepts and implications of lead user innovation and open innovation ambassadors as well as the scope and objectives of the Ambassador programme of PRODUCE.

2.1. Lead-user theory

The 'Lead-user theory', pioneered by Eric von Hippel in 1986, defines lead users as individuals that *'can serve as a need-forecasting laboratory for marketing research*' (von Hippel, 1986). Being at the forefront of significant market trends, the present needs of lead users are months or years ahead of others, making them valuable source of innovation. Moreover, lead users are expected to benefit significantly by obtaining a solution to their needs, and therefore, they are more likely to innovate. High expected benefits and being ahead on vital marketplace trends serve as indicators of lead-user characteristics. In this context, understanding lead-user behaviour and incorporating their innovations can drive commercial attractiveness and diffusion of new products (Franke et al., 2006).

Based on the above, by involving lead users in the design process, companies can tap into their expertise, creativity, and deep understanding of emerging customer needs. Lead users bring fresh perspectives, innovative ideas, and user-centered approaches, resulting in the development of more relevant, competitive, and successful products and services. Their involvement ensures that designs align with evolving market demands, enhances product adoption, and fosters a strong competitive advantage. Ultimately, collaborating with lead users leads to improved customer satisfaction and commercial success in the rapidly changing consumer landscape.

In the context of iPRODUCE, lead users are individuals who want to take control of the co-creation process for social manufacturing. In terms of the iPRODUCE OpIS platform, a lead user is important in enabling the co-creation activities within cMDFs and engaging in agile collaborations with other users of OpIS. More information about the role of lead users in social manufacturing, as well as the ways in which lead users are supported through iPRODUCE are presented in detail in '*D4.7. Lead-user Identification Tool, Matching and Agile Network Support'* and *'D4.8. Lead-user Identification Tool, Matching and Agile Network Support 2'.*

2.2. Open innovation ambassador theory

Another concept that is also highly relevant to the scope and objectives of iPRODUCE is the 'Open Innovation Ambassador'. Several organisations that seek to promote open innovation, successfully engage so-called 'innovation ambassadors' (Huff at al., 2013). To better understand the term 'innovation ambassador', we have to start from the conventional meaning of the term 'ambassador', meaning an authorized messenger, or, in the context of international relationships, a diplomatic official appointed and accredited as representative in residence by one government or sovereign to another, usually for a specific length of time. The ambassadors are responsible for safeguarding and promoting the interests of their government, following a dedicated agenda with specific tasks and building a good

working relationship with a network of key stakeholders and strategic partners. In addition, they act as experts in the field, since they have a very good knowledge of the economic, social and political state of their country.

Following this definition, an 'open innovation ambassador' is an individual assigned to communicate with the external world the key messages with the aim to identify new collaboration opportunities. They have the ability to bridge knowledge and innovation gaps and tackle complex problems that necessitate the collaboration of multiple partners with diverse expertise and resources. Consequently, they bear the responsibility of representing their organization's priorities and desires. This entails dedicating a substantial amount of effort to organizing strategic objectives and assuming a pivotal role within the organization. They achieve this by actively participating in discussions and attending events, thereby increasing awareness about the organization's goals while remaining receptive to novel ideas from external parties. It is crucial for lead users to have a comprehensive understanding of their organization and to be well-known within it, which requires both astuteness and breadth of knowledge. Effective social skills and networking abilities are indispensable, as it is essential for others to feel comfortable and inclined to engage with the lead user as an ambassador of open innovation.

2.3. Scope and objectives of the Ambassador Programme

In the context of iPRODUCE, the concept of an ambassador lies in between the concepts of lead users and open innovation ambassadors, and is further tailored to the specific needs of the project. Therefore, an ambassador is an individual willing to mobilise and inform local communities about social manufacturing and iPRODUCE while, at the same time, is willing to lead the collaborative activities, managing the collaboration between diverse stakeholders (manufacturers, makers, consumers, etc.). As explained above, their soft skills in public speaking and networking together with their personal motivation, are expected to play a key role in maximizing the outreach and impact of the project at the local level.

The objectives of the iPRODUCE Ambassador programme are:

- **Identify and engage motivated and skilled individuals** to act as ambassadors in the local manufacturing activities of the project;
- **Inform and create awareness** about the local cMDFs structure, operation and activities;
- Boost the development of iPRODUCE **collaborative manufacturing processes** through participation in co-creation and manufacturing activities;
- **Generate discussion** with regards to the community structures and products of iPRODUCE
- **Collaboratively test and train local communities** to use the iPRODUCE digital platform and collect feedback for user experience and usability aspects.
- **Maximize the project outreach through collaborations** with relevant projects and organizations.

The Ambassador programme is developed by White Research and is supported by all cMDFs and project partners. Regarding the implementation of the programme, cMDFs are tasked to identify and engage ambassadors through their local communities. The methodology and process of identifying and engaging with ambassadors is presented in the following chapter.

3. Methodology

This chapter presents the methodology followed for the implementation for the Ambassador Programme of iPRODUCE. First, the process for identifying potential ambassadors is presented together with the relevant criteria defined based on the literature and the project findings. Then, we describe the main methods deployed for the engagement of ambassadors, including the provision of incentives tailored to the local contexts, as well as the organization of consultation workshops. Finally, the reporting tool created for the proper monitoring of the activities is described.

3.1. Ambassador identification

The first and most important step of the Ambassador Programme is the identification of ambassadors. This process entails the identification of the key individuals to be assigned as project ambassadors and with whom the cMDFs establish channels of close communication and collaboration. Based on the existing literature as well as the specific requirements of the project, we have defined a list of criteria to be used for the selection of the most adequate persons (see Table 1Table 1. Ambassador identification – definition and criteria).

Table 1. Ambassador identification – definition and criteria

Definition	An Ambassador can be a person willing to mobilise and inform local communities about social manufacturing and iPRODUCE and lead the co-creation activities.
Prerequisite	Adult (+18 years old)
Participation	Voluntary basis
Criteria for selection	1. Motivated 2. Willing to learn and understand new concepts 3. Willing to share and spread knowledge with others 4. Available (has time to dedicate) 5. Autonomous 6. Fairly confident in their use of English (at least reading and listening) 7. Able to teach and share learning experiences 8. Interested in the Maker Movement and culture of reuse 9. Maker skills (desirable): project management, basic knowledge of electronics and Arduino, basics of design, digital fabrication and coding. 10. Like-minded and friendly
Relevant KPI	KPI-40: Number of ambassadors: **> 30 (5 per pilot)**

These criteria, together with all the necessary information about the programme, including the planning of the relevant activities, have been compiled in a template for Ambassador identification (see Annex 1). This template has been circulated to the consortium and each cMDF has been asked to provide information on potential individuals to be engaged as ambassadors. For each potential ambassador, the following information has been provided:

- **CMDF involved**: The cMDF in which the stakeholder is involved (drop down menu)
- **Ambassador name**: The Ambassador's personal name
- **Organization**: The Ambassador's organization (if applicable)

- **Stakeholder group**: The broader stakeholder group your identified Ambassador belongs to (drop down menu)
- **Stakeholder subgroup:** The stakeholder subgroup your identified Ambassador belongs to (drop down menu)
- **Potentially related expertise:** Further details on the (potentially related) expertise of the identified stakeholder (e.g. what kind of manufacturer? what kind of maker community? materials being used etc.)
- **Incentives**: The potential incentives for the Ambassadors to join iPRORDUCE (e.g. participation in an iPRODUCE event, access to certain features of the digital platform, etc.)
- **Contribution**: What the Ambassador could most likely contribute to? What does iPRODUCE need from this Ambassador?
- **Comments**: Add any comment that can be valuable for this Ambassador

3.2. Ambassador engagement and workshops organization

Once the identification process was complete, the next step was to actually engage these individuals and assign them the role of the ambaasador. A key aspect for the active engagement of ambassadors is giving the right **incentives** that can boost their motivation through actual benefits they get in this process and tailored to their needs. Taking also into consideration the findings of our market research activities about motivations and factors that drive engagement (T2.1), a list of potential incentives has been drafted, indicatively presented below:

1. Access to the physical space of the cMDF:
   a. Guided tour to the space and machinery
   b. Free of charge use of machinery for prototyping and testing
   c. Provide a working space for social gatherings and co-creation events
2. Early access to the beta version of the OpIS platform and tools;
3. Beta testing of the mobile application ;
4. Empower them to serve as project validators for the iPRODUCE platform and tools in the WP9 validation and testing phase;
5. New skills offered to Ambassadors:
   a. Soft skills: pitch presentation of their ideas;
   b. Hard skills: training to use specific machinery and/or digital tools;
6. Share knowledge and skills: Ambassadors can organize their own events (e.g. webinars on specific topics) and identify capacity building needs at the pilot level;
7. Invitation to participate in project or pilot events where they can present their ideas and projects (e.g. iPRODUCE consortium meeting, pilot events, etc.);
8. Access to mentorship: provide preliminary guidance on potential ideas for products and services.

Based on this list, each cMDF had the chance to further elaborate on the suggested incentives to better match their local context, as well as the specific profile and skillset of each ambassador.

Another key aspect in the engagement of the ambassadors has been the organization of **consultation workshops.** These workshops aimed to be used as a way to gather feedback and insights with regards to both the community and governance structures of iPRODUCE as well as the platform and the different products developed in the course of the project. Specific guidelines on the organization, format and reporting of these workshops have been drafted by WR and shared with the cMDFs (see Annex 2).

Finally, a dedicated meeting with all involved partners from the cMDFs was organized early at the start of the task, in order to present in detail the Ambassador programme, with clear guidance on how the

template should be filled in. During this meeting, several partners shared the opinion that skilled and trustworthy people to act as ambassadors could be part of their organization, minimizing the risk for involving only external people that might not be able to deliver as expected. Therefore, it was commonly decided that cMDFs could engage people both internal and external to their organization to act as ambassadors, and thus, ensure the active engagement and proper delivery of the relevant activities.

3.3. Consultation workshops reporting

In order to have a comprehensive overview of the ambassador engagement activities of each cMDF, each consultation workshop was reported by the respective activity-conducting team. Activity-specific reports captured the objectives, audience, and key outcomes of each event, were drafted by cMDF partners, following a template circulated by WR (*see Annex 3*). Event reports' findings are fused and summarized in the chapter below.

4. Results of the Ambassador Programme

The following section outlines the results of the Ambassador Programme, focusing on the profile of the ambassadors, as wel as the outcomes of the consultation workshops conducted with the ambassadors. It also provides an overview of the stakeholder groups represented in the programme, and highlights the main identified challenges and observations, resulting from the implementation of the ambassador programme.

The Ambassador Programme of iPRODUCE started in December 2021 and ran till the end of the project. As shown in Table 2, during this period, a total of **27 ambassadors** have been engaged across our 5 cMDFs, covering all categories of the MMC communities, as well as additional stakeholder groups, based on the specificities or each cMDF (e.g. researchers, doctors, etc.).

Table 2 Composition of Ambassador programme

cMDF	Number of Ambassadors*	Stakeholder subgroup of Ambassadors
Germany	7	Manufacturing Startups, DIY communities and maker groups, R&D units in private companies, Individuals/entrepreneurs
France	7	Engineers and Manufacturers associations, Business incubators, FabLabs, Experts and individual researchers
Italy	5	FabLabs, Experts and individual researchers, Research organisations, Consumer-good manufacturers, Software companies
Spain	5	Research organisations, FabLabs, Equipment providers (e.g. 3D printing), Consumer-good manufacturers
Greece	3	Consumer-good manufacturers, Doctors, Parents Association Schools
TOTAL	**27**	

*****This number accounts for the total number of project ambassadors at the pilot level and is di*

Regarding the stakeholder group of ambassadors, **makers and manufacturers together with researchers constitute 77%** of the total share (see Figure 2). This is well aligned with the distribution of the overall ecosystem established during the project lifetime, as described in detail in ***D6.1. Engagement and Ecosystem Establishment review report*** and ***D6.2.***(updated version).

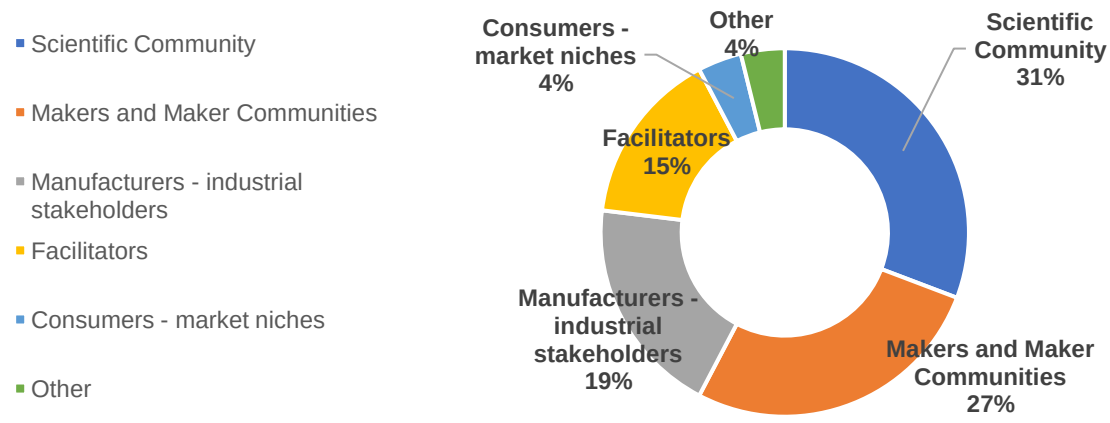


Figure 2 Stakeholder groups of ambassadors

4.1. Spanish cMDF

Briefly, the main scope of the Spanish cMDF is to **develop customer-driven products through collaborative engineering between furniture manufacturing companies and maker communities.** In particular, through the collaboration between manufacturers, FabLabs and the communities of makers, it aims at developing complex specifications for customized products that producers could not develop on their own.

In this context, the Spanish cMDF has engaged a total of **5 ambassadors** from different stakeholder groups and with as shown in the following table.

Table 3 Profile of Ambassadors of the Spanish cMDF

No.	Stakeholder group	Stakeholder subgroup	Potentially related expertise	Incentives for engagement	Ambassador's Contribution
1	Makers and Maker Communities	FabLabs	Prototyping and modelling	Access to iPRODUCE tools to the maker communities	Dissemination among the Fablab users
2	Scientific Community	Experts and individual researchers	Teaching at the university and research	New ideas, methods and tools for the students	Dissemination among the students and teaching staff of UPV
3	Scientific Community	Research organisation	Research and development of products	Novel ways of engagement	Feedback for testing prototypes, dissemination
4	Consumers - market niches	Consumer-good manufacturers	market research in consumer goods	Access to focus groups (consumers) information and market research	Feedback for user needs and market niches
5	Manufacturers - industrial stakeholders	Software companies	IT development	New ways for collaborative product development	Feedback for the project´s technical developers, dissemination

The main **incentives** for engagement offered by the Spanish cMDF range from providing access to focus groups and market insights for products better tailored to consumers' needs and access to the iPRODUCE tools and collaborative processes. Moreover, the major **contribution** of ambassadors is the wide dissemination of the project in the ambassadors' networks (university students, fablab communities etc.), as well as their feedback on the iPRODUCE tools and prototypes. The activities performed as part of the ambassador programme in the Spanish cMDF are briefly presented below (see Table 4), followed by a short analysis of the outcomes and challenges identified.

Table 4. Spanish cMDF – Overview of consultation workshops

ACTIVITY DESCRIPTION	DATE	VENUE	PARTICIPANTS
1st Consultation Workshop, Spanish cMDF + Ambassadors	22 Jun 22	AIDIMME	7
2nd Consultation Workshop Spanish cMDF + Ambassadors + Core Group	21 Feb 23	AIDIMME	16
3rd Consultation Workshop Spanish cMDF + Ambassadors	14 Mar 23	AIDIMME	3

In the **1st consultation workshop** (Jun 22, n=7), the Spanish cMDF met with the ambassadors with the aim to explore different possibilities for carrying out mobilisation activities within the local territory of the Valencian Community. According to the different profiles of the ambassadors, different possibilities were raised for the upcoming pilot events and several ideas were discussed, including participation in trade fairs, as well as workshops in fablabs and schools. The workshop concluded with the following ideas on upcoming events and activities:

1. Present iPRODUCE to the students of the Master's degree in Escola d'Art i Superior de Disseny de València (EASD);
2. Organize an open competition targeting students from Universities in Valencia, novice designers and design amateurs;
3. Participate in the Eurocontainer project of the School of Design and present the prizes of the open competition in the container itself, exhibited in Valencia´s downtown.
4. Participation in the Furniture Fair 2022 in September presenting our prototypes and giving a speech to designers (broad audience).

The overall evaluation of the workshop was very positive, as several concrete ideas for future activities have been set and co-defined between the Spanish cMDF, the core group and the ambassadors.

The **2nd consultation workshop** (Feb 23, n=16) focused on the mobilisation around the concept of social and collaborative manufacturing, and more specifically about the testing of the iPRODUCE OpIS platform. The workshop included a training session on the different tools available by that time, and then, the participants were divided into small groups of 2-3 users for testing. The organization in small groups made it easier for all participants to use the tools, with support, whenever needed, from the Spanish cMDF and the ambassadors. The feedback and bugs reported by all participants have been collected and were directly communicated to the technical developers of the project.

The **3rd consultation workshop** (March 23, n=3) aimed at discussing different possibilities for the organization of the iPRODUCE hackathon and the relevant use cases of the Spanish cMDF. The discussion focused on engaging students from vocational training centers in the Valencia Region. It was concluded that the best way to engage the audience is to visit vocational training centers related to wood and furniture design to explain the possibilities of the hackathon and the platform.

Overall, the ambassadors played a key role in different stages of the project for the Spanish cMDF, from co-defining activities and potential opportunities for dissemination, to testing and providing ideas on engaging participants in the iPRODUCE hackathon. Based on these experiences, the biggest **challenge** was to keep the ambassadors engaged along the project lifetime, while the OpIS platform was still under development. This was solved once the beta version was ready and accessible, and people were able to easily access and test the different tools. Finally, the key **incentives** for engagement have been **1) the access to a wide community of makers, manufacturers and consumers through iPRODUCE,** where anyone can find people with specific skills and knowledge, and **2) the ability to work collaboratively on ideas for new products** through the iPRODUCE platform.

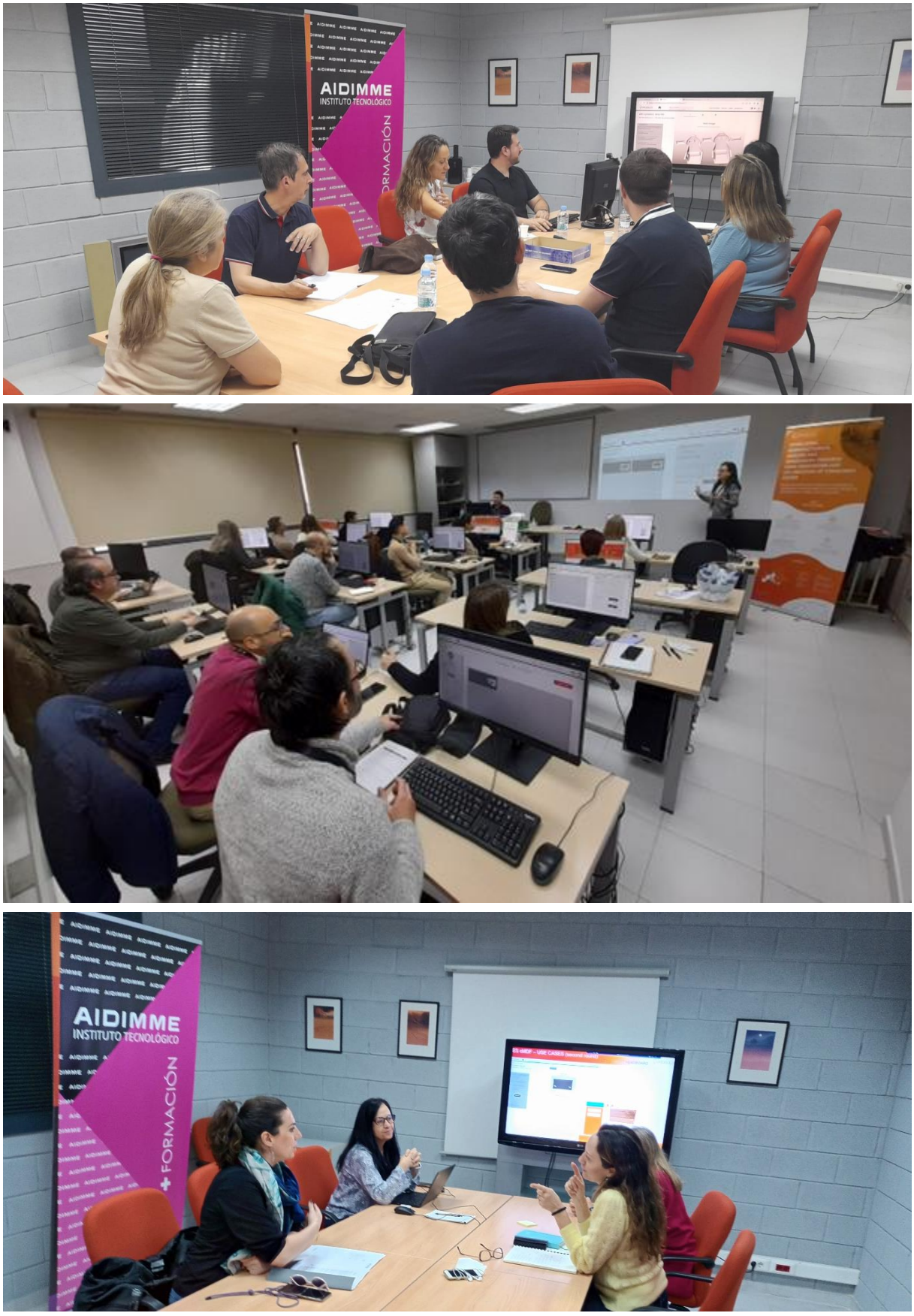


Figure 3 Snapshots from the consultation workshops of the Spanish cMDF.

4.2. German cMDF

Briefly, the main scope of the German cMDF is to **enhance the co-creation capacity of manufacturing SMEs for consumer product innovation**. Introducing the maker movement to the manufacturing sector, it aims to capitalize on the FabLab mentality and the respective working processes, facilitating the usage of equipment for new machine users and supporting iterative prototyping with electronics.

In this context, the German cMDF has engaged a total of **7 ambassadors** from different stakeholder groups and with as shown in the following table.

Table 5. Profile of Ambassadors of the German cMDF

No.	Stakeholder group	Stakeholder subgroup	Potentially related expertise	Incentives for engagement	Ambassador's Contribution
1	Manufacturers & Industrial Stakeholders	Manufacturing Startups	Participation in a network of startups	Networking with EU partners, project acquisition	Feedback for testing prototypes, dissemination
2	Scientific Community	Research organizations	Human Centered Design, Design Thinking Methodology	Networking with EU partner, project acquisition	Feedback for testing prototypes, dissemination
3	Makers and Maker Communities	DIY communities and maker groups	Design, Making, Prototyping	Networking with EU projects and partners	Feedback for testing prototypes, dissemination
4	Makers and Maker Communities	DIY communities and maker groups	Design, Making, Prototyping	Networking with EU partner, project acquisition	Feedback for testing prototypes, dissemination
5	Scientific Community	R&D units in private companies	Innovation, match-making	Supporting industrial companies, innovative projects	Project promotion and dissemination
6	Manufacturers - industrial stakeholders	Individuals/entrepreneurs	Innovation, ideation, funding	Supporting start-ups, networking	Project promotion and dissemination
7	Makers and Maker Communities	DIY communities and maker groups	Design, Making, Prototyping, IoT	New product testing	Feedback for testing, dissemination

The main **incentives** for engagement offered by the German cMDF regard the business opportunities provided by the project, through networking with several EU organizations, from SMEs and startups to research organizations. The acquisition of new projects is also a key incentive for ambassadors, while their main **contributions** regard the dissemination of the project through their networks, together with the provision of feedback for the tools and prototypes of iPRODUCE. The activities performed as part of the ambassador programme in the German cMDF are briefly presented below (see Table 6), followed by a short analysis of the outcomes and challenges identified.

Table 6 German cMDF – Overview of consultation workshops

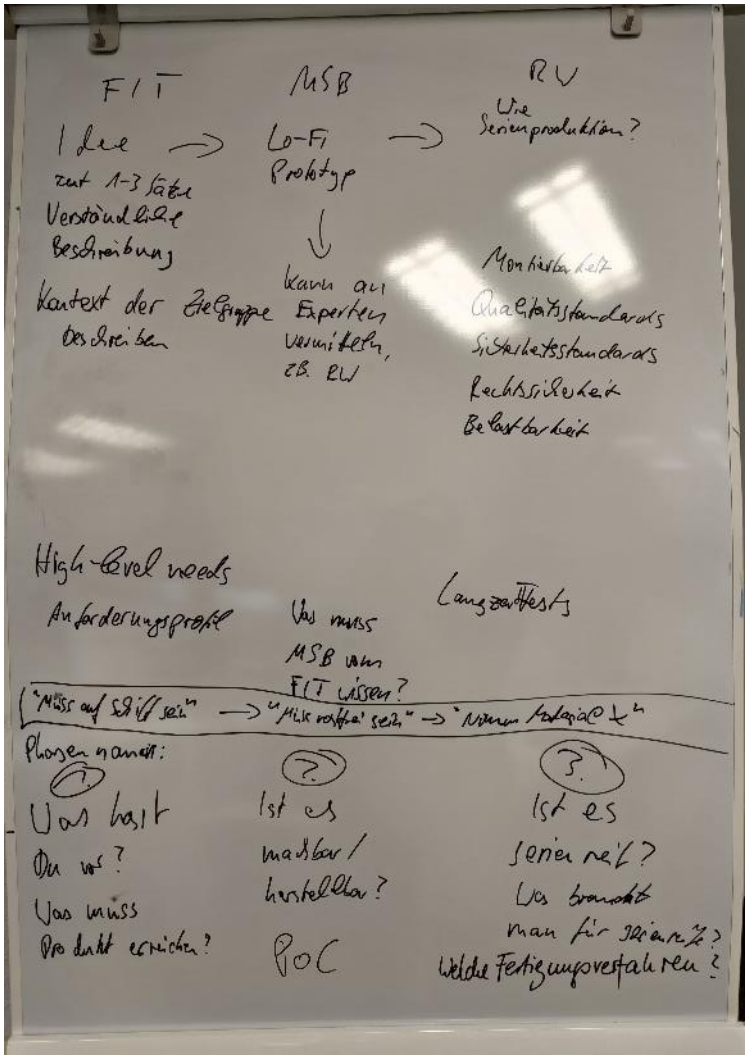
ACTIVITY DESCRIPTION	DATE	VENUE	PARTICIPANTS
1st Consultation Workshop, German cMDF + Ambassadors	18 Jan 22	Fraunhofer FIT	3

ACTIVITY DESCRIPTION	DATE	VENUE	PARTICIPANTS
2nd Consultation Workshop German cMDF + Ambassadors + Core Group	08 March 23	online	5

The **1st consultation workshop** (Jan 22, n=3) aimed at reflecting upon a series of activities performed in the past, focusing on Live Prototyping, in order to identify areas for improvement. The workshop was set up as an interactive discussion and a physical meeting was chosen instead of an online one, to facilitate interaction between participants with the use of whiteboard and flipcharts (see Figure 4). The workshop started with an exchange of impressions about what was considered successful, what challenges had been identified and what could be improved. This discussion lead to the definition of a set of strengths and weaknesses on the current format of the workshop, e.g. the (un)suitability of MSB to support high maturity prototypes, the misleading name of the workshop, etc. Based on these, an improved concept for the workshop was developed and it was decided to conduct the workshop twice during the lifetime of iPRODUCE.

The **2nd consultation workshop** (March 23, n=5) had a different focus compared to the first one, as it aimed to familiarize participants with the iPRODUCE OpIS platform. More specifically, this workshop focused on demonstrating the potential of the different tools for collaboration across stakeholder groups and on collecting feedback on the usability and functionalities of the tools. The participants represented different stakeholder groups (industry, academia and makers), which provided a very fruitful environment for discussion and exchange of views and impressions on the different tools. The workshop took place online, as it was considered more convenient for all participants. It started with a live demonstration of the iPRODUCE tools, followed by a discussion about the strong and weak points of the platform as a whole, but also regarding specific tools. After the event, this information was communicated to the technical developers of the project, so that they take them into consideration in the subsequent releases of the tools.

Overall, the engagement of the ambassadors in the German cMDF was an opportunity to better communicate the concept and benefits of social manufacturing to a targeted and dedicated group of people. The **main contribution of the ambassadors** was the provision of feedback on different aspects of the project: on the one hand, on the definition of activities to be performed by the cMDF considering also previous experiences, and, on the other hand, the testing of the OpIS platform. Based on these experiences as well as other mobilisation activities, the biggest **challenge** was to reach established SME managers and convince them about the benefits of social manufacturing and online collaboration, indicating the need for clear and targeted communication of the value propositions of iPRODUCE.



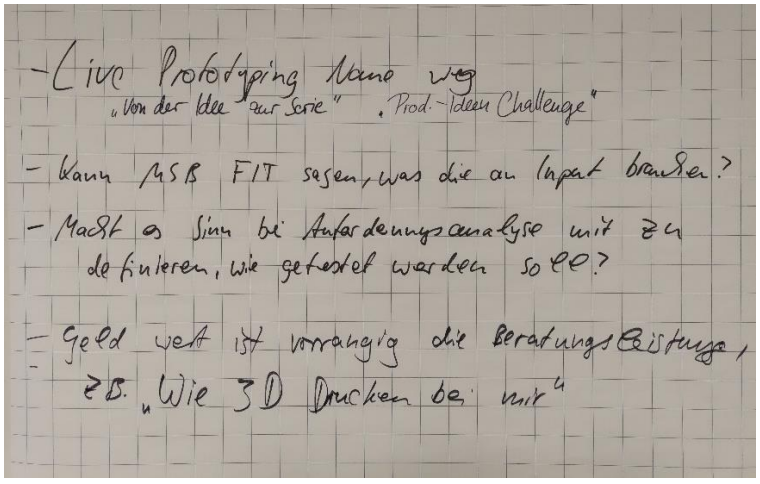


Figure 4 Snapshots from the consultation workshop of the German cMDF

4.3. French cMDF

The main scope of the French cMDF is to **demonstrate the use of co-creation and co-design processes mainly in the mobility, automotive and robotics sectors**. To do so, it is working on 1) making the FabLabs equipment, tools and machines more accessible to potential users or product developers as well as on 2) supporting entrepreneurs' and SMEs' projects, especially in the mobility and electro-mobility sectors.

In this context, the French cMDF has engaged a total of **7 ambassadors** from different stakeholder groups and with as shown in the following table.

Table 7. Composition of French cMDF

No.	Stakeholder group	Stakeholder subgroup	Potentially related expertise	Incentives for engagement	Ambassador's Contribution
1	Facilitators	Engineers and Manufacturers associations	Industrial performance and innovative projects.in the mobility sector	Promote its services and solutions in the French CMDF mobility service offer	Promotion of the project and its activities, feedback on the platform and use cases, participation in collaborative manufacturing activities
2	Facilitators	Business incubators	Support for start-ups on the structuring of their projects	Promote its services and solutions in the French CMDF mobility service offer	Promotion of the project and its activities, feedback on the platform and use cases, participation in collaborative manufacturing activities
3	Makers and Maker Communities	FabLabs	Skills in prototyping within an academic fablab	Engagement of students in activities linked to real world projects	Testing and feedback on the design of the prototypes and the use of the platform
4	Scientific Community	Experts and individual researchers	Development of composite products and processes	Promote its services and solutions in the French CMDF mobility service offer	Promotion of the project and its activities, feedback on the platform and use cases, participation in collaborative manufacturing activities
5	Makers and Maker Communities	FabLabs	Design, prototyping and training on mechanical projects and industrial equipment	Networking with EU partners	Promotion of the project and its activities, organization of physical and online events, feedback on the platform
6	Makers and Maker Communities	FabLabs	Design and prototyping for new products	Networking with EU partners	Promotion of the project and its activities, organization of physical and online events, feedback on the platform

7	Facilitators	Engineers and Manufacturers associations	Support of a network on the structuring of innovation projects	Networking with EU partners	Promotion of the project and its activities, organization of physical and online events, feedback on the platform

The main **incentives** for engagement offered are, on the one hand, the possibility for ambassadors to promote the services and solutions of their organizations in the mobility service offer of the French cMDF, and, on the other hand, the networking opportunities with other EU partners. As far as their **contribution** is concerned, most ambassadors were involved in both the promotion of the project and its activities and the provision of feedback based on the testing of the platform and use cases. The activities performed as part of the ambassador programme in the French cMDF are briefly presented below (see Table 8), followed by a short analysis of the outcomes and challenges identified.

Table 8 French cMDF - Overview of consultation workshops

ACTIVITY DESCRIPTION	DATE	VENUE	PARTICIPANTS
1st Consultation Workshop French cMDF + Core Group + Ambassadors	18 Mar 22	Fablab-Vosges	9
2nd Consultation Workshop French cMDF + Core Group + Ambassadors	6 Feb 23	Hybrid	9

The key objectives of **both workshops** were to, on the one hand, reach out to new communities and create awareness around social manufacturing, and, on the other hand, test the OpIS platform and tools and accelerate the development of the cMDF activities. The workshops were set up through email exchanges with the core group members to determine the best date for the workshops. The **1st** consultation workshop was held physically at Fablab Vosges and participants were invited via the Fablab's social media and network, while the 2nd one adopted a hybrid format, due to the geographical distance between participants.

The participants for the events were selected based on the perspective of involving both industry stakeholders to provide critical feedback on the tools and iPRODUCE concepts, and the general public, as a way to close the loop of tool testers and users. The structure of the events involved presentations on the project concept and interactive demos of the OpIS platform and tools. In the second workshops, an interactive game with sticky notes was also employed to stimulate playful interaction between participants. The main outcomes of the workshops indicated that while the idea of a platform with multiple tools was very interesting and of great potential, there was still room for improvement of the overall user experience and navigation between the tools. The participants highlighted the usefulness of some tools but also the difficulty of using others and the specific comments collected were communicated to the technical developers of iPRODUCE.

Overall, the role of the ambassadors was pivotal for the project, especially in terms of promotion of the project objectives and activities, but also in terms of targeted feedback collection. The biggest challenge identified by the French cMDF was **the difficulty to involve established industrial partners** in the project activities, either as ambassadors or as participants of the consultation workshops and other activities. This is probably due to the lack of understanding on the added value of co-creation in the manufacturing process, which underlined the need for a clear communication on the benefits of collaborative manufacturing. Other identified challenges were keeping the ambassadors engaged across time, maintaining their interest and motivation in the project, while the lack of clear instructions on how to use the tools effectively was also mentioned.

Figure 5 Snapshots from the consultation workshops of the French cMDF

4.4. Italian cMDF

The main scope of the Italian cMDF is to **enable collaborative engineering between the mechanics/mechatronics manufacturing companies and the maker/fablab communities**, bringing together experts, makers, manufacturing facilities, local start-ups and SMEs. It serves as a partner for companies and professionals, mainly, in the design and realization of mechatronics and microelectronics appliances.

The Italian cMDF has engaged a total of **5 ambassadors** from different stakeholder groups, mainly from scientific community, as shown in the following table.

Table 9. Composition of Italian cMDF

No.	Stakeholder group	Stakeholder subgroup	Potentially related expertise	Incentives for engagement	Ambassador's Contribution
1	Scientific Community	Research organisations	Teacher in the design sector	Access to OpIS platform	Dissemination of project scope and activities
2	Scientific Community	Research organisations	Teacher in the prototyping sector	Access to OpIS platform	Feedback from testing the platform, dissemination of project scope and activities
3	Makers and Maker Communities	FabLabs	Prototyping and additive expert (teaching, supporting makers)	Participation in open missions involving students	Feedback from testing the platform, dissemination of project scope and activities
4	Scientific Community	Research organisations	Computer science professor	Participation in open missions involving students	Feedback from testing the platform, dissemination of project scope and activities
5	Manufacturers - industrial stakeholders	Equipment providers	Engineer, microelectronics entrepreneur	Access to OpIS platform	Feedback on prototypes, and testing the platform

The **incentives** offered to the ambassadors of the Italian cMDF included, on the one hand, the access to the OpIS platform, and, on the other hand, the opportunity to participate in the open missions of iPRODUCE involving students. Moreover, the **contributions** were quite similar for most ambassadors and encompassed the dissemination of the project scope and activities, the provision of feedback for the prototypes of the use cases, as well as from using the OpIs platform. The activities performed as part of the ambassador programme in the Italian cMDF are briefly presented below (see Table 10), followed by a short analysis of the outcomes and challenges identified.

Table 10. Italian cMDF – Overview of consultation workshops

ACTIVITY DESCRIPTION	DATE	VENUE	PARTICIPANTS
1st Consultation Workshop Italian cMDF + Core Group + Ambassadors	29 Nov 22	BeFactory – Manifattura (Rovereto)	12
2nd Consultation Workshop Italian cMDF + Ambassadors	25 Mar 23	MUSE - Science Museum of Trento (Trento)	6

Both consultation workshops had a similar approach in the organization, format and outcomes, so they are hereby presented jointly. The workshops had the following objectives;

1) inform and create awareness about the Italian cMDFs structure and operation;
2) accelerate the development of iPRODUCE collaborative manufacturing processes; and
3) gather insights with regards to the community structures and iPRODUCE OpIS tools.

They were organised by Trentino Sviluppo, Hub Innovazione Trentino, in collaboration with other iPRODUCE cMDF stakeholders (f.i. Science Museum of Trento "MUSE", University of Trento, etc.) and the venues were selected with the criteria to have access to a private space, where the team could meet and discuss. The structure of the workshops was the following: first, a short presentation of the iPRODUCE project, the Italian cMDF and the results so far achieved took place, and then a presentation of the OpIS tools with live demonstrations and interactive discussion followed. The involved stakeholders were mainly interested in the cMDF network, as well as in the facilities and equipment available for product development. There was also interest in getting updated about project outcomes, of future events and of new co-creation opportunities. The industries were interested mainly in networking in the terms to understand better "who does what", in order to be ready in new product development.

Moreover, they had the opportunity to have a live demo of the OpIS tools to have a better overview of the features and functionalities and collected some suggestions for improvement. The suggestions touched upon different aspects of the project, from keeping the participants updated about cMDF results, activities, events and opportunities (e.g. through newsletter) to more specific ideas on how to improve the use of the OpIS platform. These ideas included the creation of specific video tutorials of the entire process flow and for each tool, the possibility to buy/sell products on the marketplace and, finally, the option to add co-creation funding opportunities such as call for proposals.

Overall, the engagement of ambassadors proved to be a great way to involve motivated individuals that are willing to share their ideas and suggestions, so as to further promote the project in their networks. Based on the experiences presented above, the engagement of ambassadors in the activities of the Italian cMDF was considered to be easy, at first, as the ambassadors had a clear interest in testing the platform and eventually realise its potential and the types of users that could best benefit from it. The main **challenge** that has been identified was the continuous engagement of ambassadors across the project lifetime, without losing their motivation and thus participation in the expected activities. To mitigate this risk, the Italian cMDF decided to organize events stressing in particular the social aspect of the project, through the concepts of co-creation, open innovation and collaborative manufacturing. Overall, the participation of the ambassadors was considered quite positive for the Italian cMDF and their contribution was useful for the improvement of the project results.

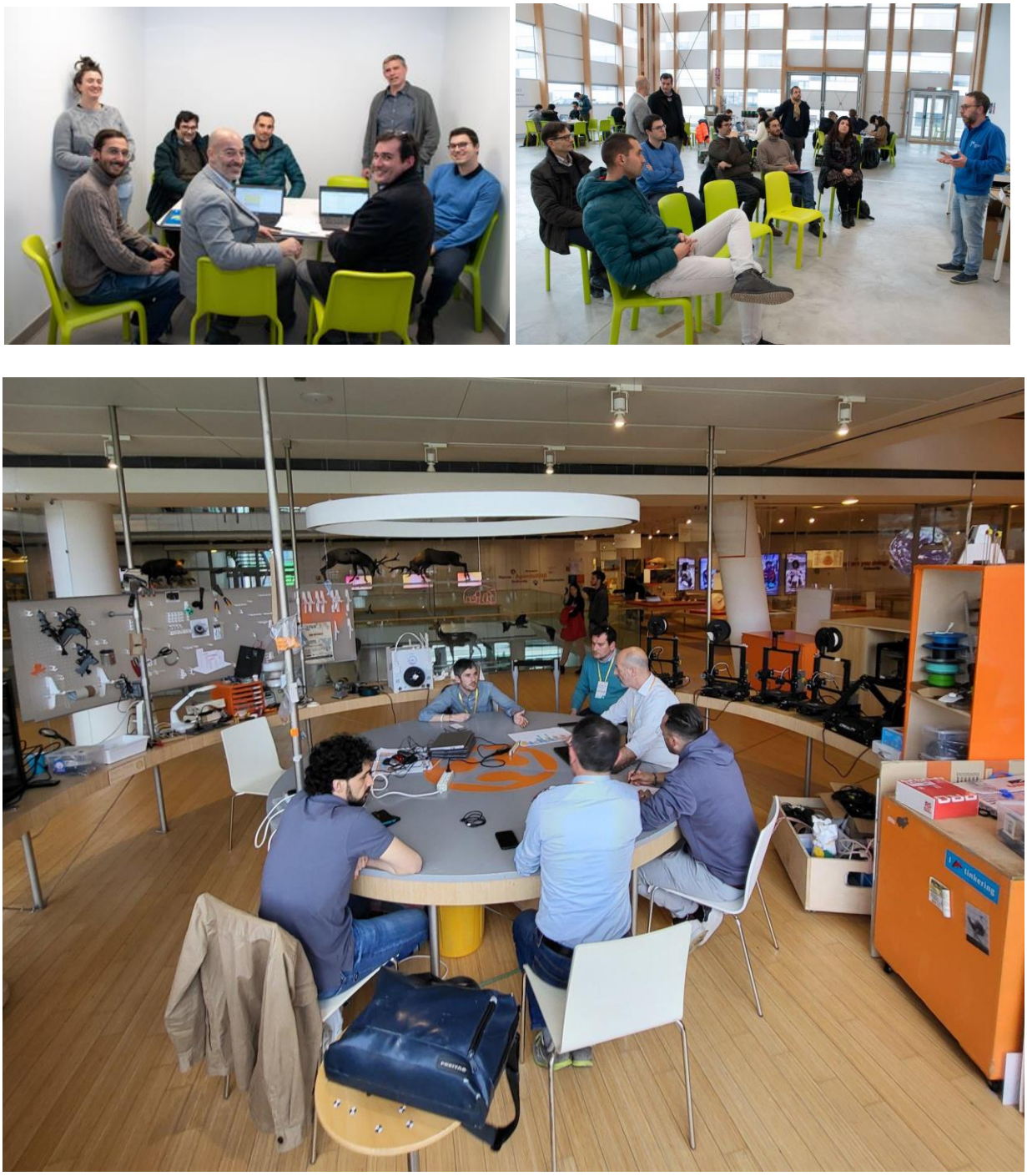


Figure 6 Snapshots of the consultation workshops of the Italian cMDF.

4.5. Greek cMDF

The main scope of the Greek cMDF is to bridge the gap between **SMEs, makerspaces and end users, with a focus on medical equipment.** More specifically, it seeks to produce innovative medical equipment that outperforms existing solutions in terms of comfort and efficiency, offering patients a chance to increase their quality of life.

In this context, the Greek cMDF has engaged a total of **3 ambassadors** from different stakeholder groups and with as shown in the following table.

Table 11 Profile of Ambassadors of the Greek cMDF

No.	Stakeholder group	Stakeholder subgroup	Potentially related expertise	Incentives for engagement	Ambassador's Contribution
1	Manufacturers - industrial stakeholders	Consumer-good manufacturers	Materials Engineering, Additive Manufacturing, Research and Development	1) Networking with end-users 2) Access to mentorship; 3) Invitation to participate in events to present their ideas and projects	1) Feedback on Additive Manufacturing and materials design, 2) Access to testing equipment of affiliate laboratories
2	Scientific Community	Doctors	Feedback on pets splints, Research and Development	1) Access to the physical space of the cMDf, 2) New skills, 3) Invitation to participate in project events to present their ideas and projects, 4) Access to mentorship	Feedback for testing prototypes
3	Other	President of the Parents Association Schools	Organisation, Communication & Presentation skills	1) Access to the physical space of the cMDf, 2) Early access to the OpIS platform and tools, 3) New skills 5) Share knowledge and skills, 6) Invitation to participate in project events to present their ideas and projects	Facilitate future training sessions with local stakeholders related to educational (teachers/educators/students from High school, Middle School and Fifth & Sixth Grade of Elementary schools)

The main **incentives** for engagement offered by the Greek cMDF range from providing access to the physical space of the cMDF and the provision of new skills to the ambassadors (such as 3D printing) to inviting them to participate in project activities and present their ideas and projects. Furthermore, there are different **contributions** from the ambassadors based on their role and expertise. For example, the first ambassador has contributed with specific feedback on the design and material aspects of the products, while the third ambassador committed to facilitate training session with educational staff and students with regard to 3D printing and collaborative manufacturing.

The activities performed as part of the ambassador programme in the Greek cMDF are briefly presented below (see Table 12), followed by a short analysis of the outcomes and challenges identified.

Table 12 Greek cMDF - Overview of consultation workshops

ACTIVITY DESCRIPTION	DATE	VENUE	PARTICIPANTS
1st Consultation Workshop Greek cMDF + Ambassador	23 Nov 22	AidPlex facilities	3
2nd Consultation Workshop Greek cMDF + Ambassadors	6 Dec 22	Online	3

The primary goal of the **1st consultation workshop** (Nov 22, n=3) was to foster co-design and co-creation activities by leveraging a range of innovative technologies, while reinforcing the ambassadors' understanding of the local cMDF's structure and operation. The ambassadors' engagement commenced with a tour of Aidplex's state-of-the-art facilities. This experience allowed them to explore the cutting-edge infrastructure dedicated to advanced manufacturing and IoT applications. Subsequently, they actively participated in a comprehensive training workshop that provided a step-by-step demonstration of the entire manufacturing process for a splint designed to aid in fracture recovery. The workshop covered every aspect, including 3D design, 3D printing and post-processing procedures, enabling the ambassadors to gain practical insights and knowledge in utilising these technologies for medical purposes, by integrating the available tools of the OpIS platform.

As a result of the workshop, several significant benefits and outcomes emerged. First, the ambassadors gained valuable experience in utilising digital tools and technologies, expanding their skill set and staying at the forefront of innovative practices within the medical field. Secondly, the workshop provided an opportunity to collect invaluable feedback on the user experience and usability aspects of the iPRODUCE OpIS platform. Lastly, the workshop facilitated insights into the community structures and products of iPRODUCE, fostering stronger connection and collaboration between the ambassador and the local community.

The **2nd consultation workshop** (Dec 22, n=3) was organised online and was specifically designed to target veterinarians, who specialise in treating small pets. The objective of the workshop was to showcase the vast capabilities of digital technologies in promoting co-design and co-creation activities, while simultaneously familiarising the ambassadors with the Greek cMDF's structure and operation. Despite the virtual format, the workshop seamlessly provided the ambassador with a stimulating experience. Through a meticulously designed virtual tour, the ambassadors had the opportunity to explore the facilities of Aidplex and CERTH. The virtual journey provided the ambassadors with a deep understanding of the cutting-edge infrastructure dedicated to 3D printing and its potential application in the medical field for pets. During the workshop, the ambassadors actively participated in a training session that demonstrated the manufacturing process of custom splint tailored for pets.

A pivotal component of this workshop was the introduction of the iPRODUCE OpIS platform to the ambassadors, which they used to co-create a splint for pets with the available tools. This virtual engagement highlighted the potential of digital technologies to revolutionise medical practices in the context of veterinary care for pets.

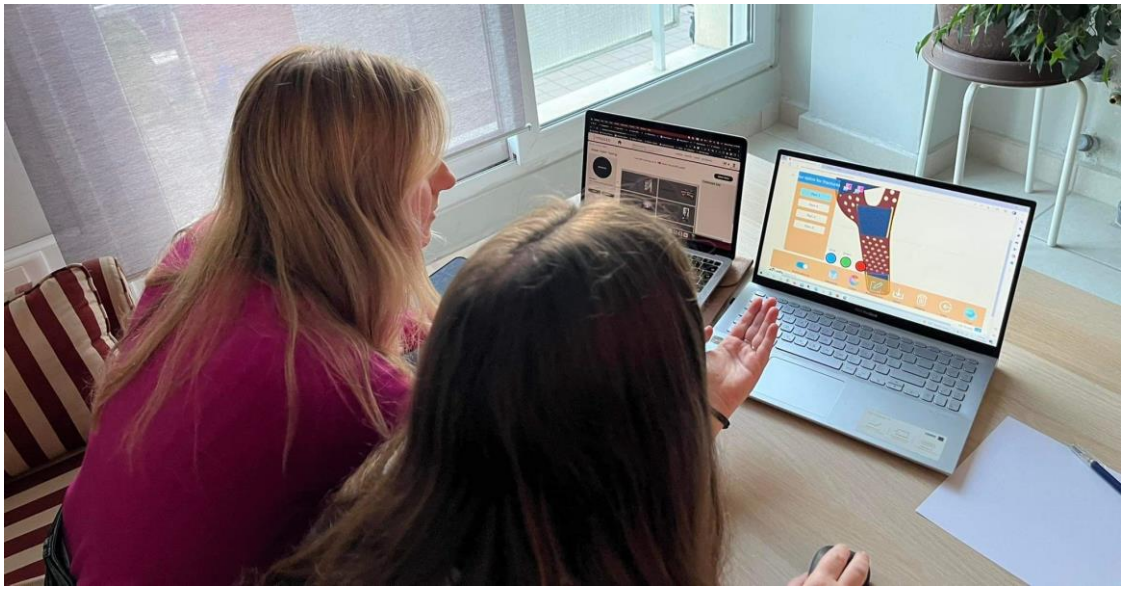
Overall, the engagement of ambassadors through consultation workshops provided a **unique and engaging opportunity to test and train local communities on the use of digital tools.** The workshops facilitated the gathering of valuable feedback on usability aspects of the iPRODUCE OpIS platform, ensuring its continuous improvement and optimization. Nevertheless, throughout the process of identifying and engaging ambassadors, we encountered several challenges that required careful handling. One major **challenge** was finding individuals who possessed the necessary skills and expertise, while also being willing to commit their valuable time and efforts to iPRODUCE project. It

was a task that involved thorough research, networking and persuasive communication to connect with potential ambassadors who aligned with the project's objectives.

Once we had identified potential ambassadors, another challenge arose: **sustaining their engagement and motivation**, as the ambassadors often had numerous commitments and demands on their time. To address this, we implemented a **range of incentives to encourage their active involvement**. Networking opportunities with potential end-users allowed ambassadors to broaden their professional connections and expand their impact. We provided mentorship, offering preliminary guidance on their product and service ideas, helping them refine and develop their concepts. Invitations to participate in project and pilot events, such as iPRODUCE hackathon, or warm-up and training workshops, provided ambassadors with a platform to showcase their ideas and projects, gaining valuable exposure.

Access to physical space of the Greek cMDF infrastructures (CERTH and Aidplex) proved to be an enticing incentive, as it offered ambassadors a dedicated environment for experimentation and innovation. We also ensured that ambassadors received early access to the beta version of the OpIS platform and tools, enabling them to provide valuable feedback and shape the platform's development. By empowering them as validators during the testing phase of their respective use case scenario, we recognized and leveraged their expertise, benefiting from their valuable insights.

One of the most rewarding aspects was witnessing the **growth of our ambassadors as they acquired new skills throughout the project**. Through comprehensive training and capacity-opportunities, they were equipped with valuable knowledge and expertise in digital manufacturing. By addressing these challenges and offering meaningful incentives, we successfully identified and engaged a dedicated group of ambassadors who played an integral role in driving the success of our use cases. Their expertise, enthusiasm, and invaluable contributions have significantly influenced the Greek cMDF's outcomes and expanded its reach.



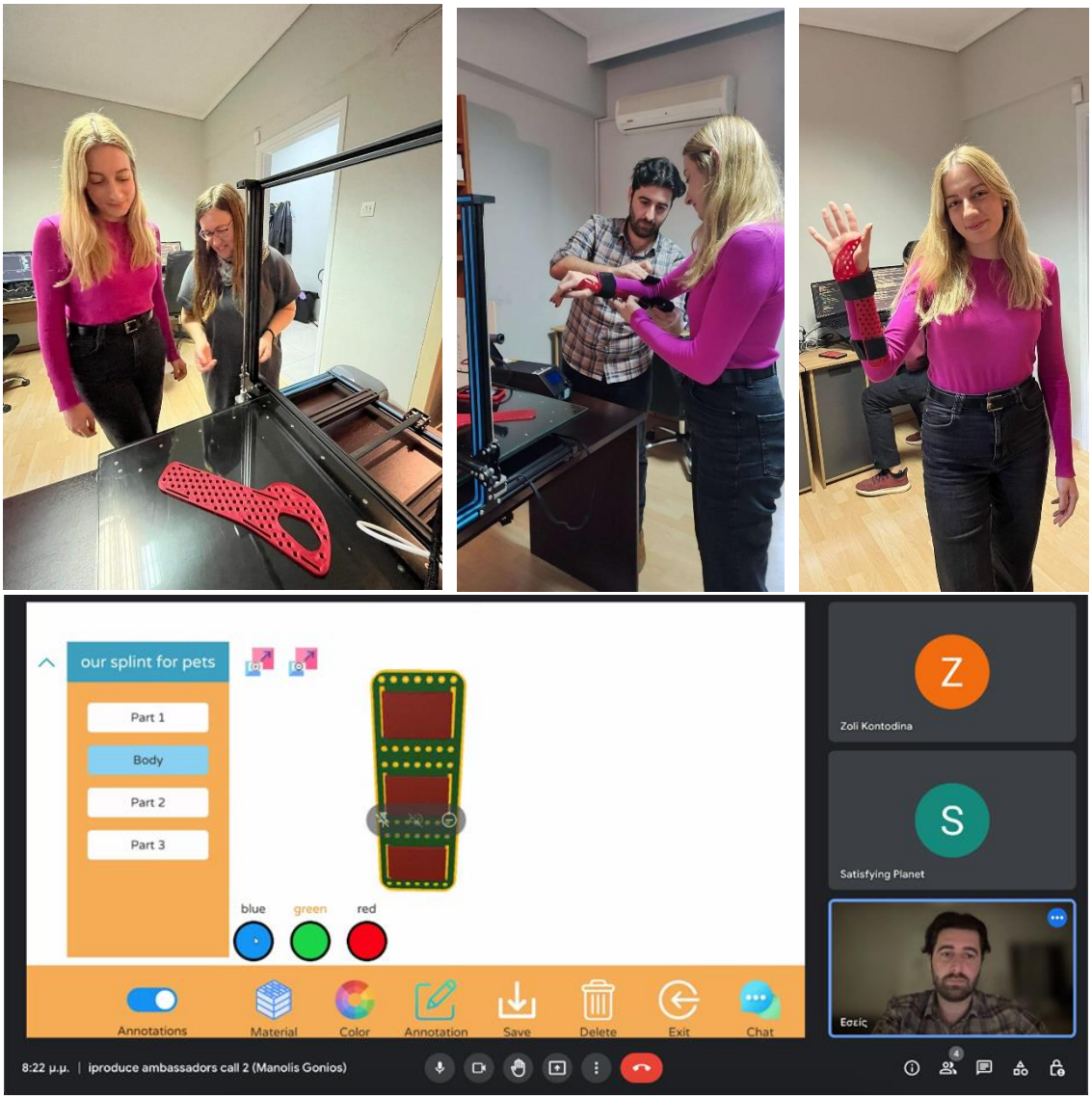


Figure 7 Snapshots from the consultation workshops of the Greek cMDF

5. Conclusions

The iPROCUCE Ambassador Programme for Early Adopters was a key part of activities for the engagement of lead users in the local communities. Based on the relevant theoretical background of lead users and open innovation ambassadors, a simple yet effective methodology was developed and followed by all cMDFs, leading to the successful engagement of lead users in their communities. The ambassadors came from a wide range of stakeholder groups, covering all the groups of the MMC communities.

As presented in Table 13, the targets set for the Ambassador Programme have been achieved, both in terms of the total number of ambassadors engaged and in terms of events organized, which means **27 ambassadors and 11 consultation workshops**. It is important to mention that the target value of 30 ambassadors was expected to be covered by 6 cMDFs, without considering the withdrawal of the Danish cMDF.

Table 13 Overview of the results of the ambassador programme

cMDF	Ambassador Programme for Early Adopters			
	Number of Ambassadors engaged	*KPI (all cMDFs): 30**	Consultation workshops organised	*KPI per cMDF: at least 2 events*
Spain	5	✓	3	✓
Germany	7	✓	2	✓
France	7	✓	2	✓
Italy	5	✓	2	✓
Greece	3	✓	2	✓
[5 cMDFs]	**27**	✓	**11**	✓

***This number was expected to be reached by 6 cMDFs,*

Overall, the ambassador programme had a positive impact on the project, as ambassadors played a key role in several pilot activities, mainly providing their ideas and feedback on co-defining project activities and testing the OpIS platform. However, sustaining their engagement throughout the project lifetime proved to be a significant hurdle for all cMDFS, especially while the OpIS platform was still under development.

To overcome these challenges, several ad hoc measures were taken such as emphasizing the social aspect of the project, offering networking opportunities, providing mentorship, granting access to physical spaces, and involving ambassadors in project events were implemented. These incentives helped sustain their engagement and enhance the outcomes of the cMDF projects.

By addressing these common challenges and offering meaningful incentives, the programme managed to successfully engage dedicated ambassadors who contributed significantly towards the improvement of the project results. Their expertise, enthusiasm, and valuable insights expanded the reach and impact of iPRODUCE.

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Huff, A. S., Möslein, K. M., & Reichwald, R. (Eds.). (2013a). Leading open innovation. MIT press.

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Annexes

Annex 1. iPRODUCE Ambassador identification template

iPRODUCE Ambassador identification template	
Sheet 1-Definition and Planning	*Please read carefully the definition of an Ambassador together with the prerequisites and criteria for participation. An indicative planning for the upcoming period is also provided.*
Sheet 2-Incentives and Rewards	*Please indicate a list of incentives that you foresee for the Ambassadors of your cMDF.*
Sheet 3-Identification	*Please provide information for all the Ambassadors of your cMDF* ***(one row per Ambassador)*** *and fill in the required fields according to the guidelines provided below:*
cMDF involved	The cMDF in which the Amabassador is involved (**drop down menu**)
Ambassador name	The Ambassador's personal name
Organization	The Ambassador's organization (if applicable)
Stakeholder group	The broader stakeholder group your identified Ambassador belongs to (**drop down menu**)
Stakeholder subgroup	The stakeholder subgroup your identified Ambassador belongs to (**drop down menu**)
Potentially related expertise	Further details on the (potentially related) expertise of the identified Ambassador (e.g. what kind of manufacturer? what kind of maker community? materials being used etc.)
Incentives	The potential incentives for the Ambassadors to join iPRORDUCE (e.g. participation in an iPRODUCE event, access to certain features of the digital platform, etc.)
Contribution	What the Ambassador could most likely contribute to? What does iPRODUCE need from this Ambassador?
Comments	Add any comment that can be valuable for this Ambassador
Sheets: Categories #1 - Categories #2	*IMPORTANT: Please* ***do not*** *edit these sheets*

iPRODUCE Ambassador identification template			
Definition	An Ambassador can be a person willing to mobilise and inform local communities about social manufacturing and iPRODUCE. People from iPRODUCE consortium can also act as project ambassadors, but the engagement of external people is also highly recommendable to increase the outreach of the project.		
Prerequisite	Adult (+18 years old)		
Participation	Voluntary basis		
Criteria for selection	1. Motivated 2. Willing to learn and understand new concepts (self-learning and learning by doing) 3. Willing to share and spread knowledge with others 4. Available (has time to dedicate) 5. Autonomous 6. Fairly confident in their use of English (at least reading and listening) 7. Able to teach and share learning experiences 8. Interested in the Maker Movement and culture of reuse 9. Maker skills (desirable): project management, basic knowledge of electronics and Arduino, basics of design, digital fabrication and coding. These are a great asset for the Maker Champions to be easily immersed into the training 10. Like-minded and friendly		
Relevant KPI	Objective 5 Achievement indicator: **>10 Ambassadors** (early adopters) are brought on board during the lifetime of the project KPI-40: Number of ambassadors: **> 30 (5 per pilot)**		
Planning	**Action**	**Who**	**When**
	Template for ambassador identification	WR	Nov-21
	Identification of ambassadors	cMDFs	20-Dec-21
	Finalization of identification process	WR	30-Dec-21
	Guidelines for consultation workshops	WR	Jan-21
	Consultation workshop #1	cMDFs	Feb-21
	Consultation workshop #2	cMDFs	May-21
	Gather information, analyse, draft relevant deliverable	WR	Dec-22

iPRODUCE Ambassador identification template								
	Drop down menu	*Please fill in*	*Drop down menu* (if menu list appears blank, please scroll up)	*Drop down menu* (if menu list appears blank, please scroll up)	*Please fill in*	*Please fill in*	*Please fill in*	*If necessary, provide any additional comment*
No.	**cMDF involved**	**Ambassador name**	**Stakeholder group**	**Stakeholder subgroup**	**Potentially related expertise** (if applicable)	**Incentives for engagement**	**Ambassador's Contribution**	**Comments**
example	*1 - cMDF Spain*	*Dimitris Chapizanis*	*Consumers - market niches*	*Gamers*	*web design, user experience design*	*Access to advanced features in the digital platform*	*Feedback for testing prototypes, dissemnation*	*Dimitris could be an Ambassador as he is popular in the gamer community through his Youtube channel (aprox 250K subscribers)*
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Annex 2. iPRODUCE Consultation workshops' guidelines

1. Introduction

1.1. Task Description

According to the Grant Agreement (T6.3 - Ambassador Programme for Early Adopters), local communities will identify and engage early adopters and local maker and consumer champions, also called lead users, to accelerate the development of their collaborative manufacturing processes. A key step for the engagement of ambassadors involves the organization of consultation workshops with the aim to gather their feedback with regards to both community structures and products of iPRODUCE. Each cMDF will organize two consultation workshops, while virtual meetings will also take place to ensure the provision of feedback on a frequent basis.

In this context, the cMDFs, supported by their national supporting partners, are responsible for organising these events, following the guidelines shared by White Research. Once the event has taken place, the cMDFs are required to fill in the reporting template described in this document.

1.2. Objectives

These events should be **dynamic** to fit the various pilot settings of the cMDFs. The main objectives of the consultation workshops are to:

- **Inform** and **create awareness** about the local cMDFs structure and operation
- Accelerate the development of iPRODUCE collaborative manufacturing processes
- Gather insights with regards to the community structures and products of iPRODUCE
- Collaboratively **test and train** local communities to use the iPRODUCE digital platform and **collect feedback** for user experience and usability aspects.

It should be clear that these objectives are not expected to be set for each consultation workshop. They frame the overarching purpose of these actions and are expected to be clearly defined by the event organizers.

1.3. Action Plan

A brief action plan for the organisation, implementation and reporting of T6.3 consultation workshops is provided below. It is recommended that cMDFs start with planning these actions from May 2021 and align each event's objectives with the overall activities of the project.

Table 1. Events action plan

Action	Who	When
Initial guidelines and template	WR	January 2022
Share event plan and agenda (15 days before each event)	cMDFs	February 2022
Event organization and implementation phase	cMDFs	February 2022 – June 2022
Fill out workshop reporting templates and send them to WR	cMDFs	After each event
Analysis of the consultation workshops outcomes	WR	May 2023

It is highly recommendable that the 1st consultation workshops is held by the end of February 2022.

2. Before the event

There are several steps that have to be followed in order to organize a consultation workshop. Before holding the event, you should:

1. **Pick a date and a suitable time**: the date should consider the ambassadors' availability. The event should last a max of 2 hours, especially if held online, to maintain the attendees' interest.
2. **Select digital platform** (if online): choose the software that will be used based on the specific needs of the events. For example, if you want to have brainstorming or co-creation sessions, platforms that support the formation and management of rooms are preferable. More information on this is provided in Section 2.2.
3. **Prepare the event communication text and identify key hashtags**: use simple language and hashtags to be used in the dissemination of the event across social media channels, email, etc.
4. **Send out communication text two weeks before the event**: proper dissemination can result in higher rates of attendance and thus, higher rates of holding a successful event.
5. **Inform the iPRODUCE dissemination and communication manager (F6S) and the consortium:** exploit the existing channels of the project to disseminate your event.
6. **Assign roles of facilitator and support coordinator:** the events need to have one facilitator, who will lead the event, and one support coordinator, who may take notes, support with external programs and collect answers for Q&A.
7. **Prepare slides for presentation:** this might be an introductory presentation of the project[1] and the local cMDF, a brief description regarding the purpose of the event and how this can be beneficial for the stakeholders. Additional information can be provided based on the specific objectives of each event.
8. **Send a reminder the day before the event**: based on the registration information, send a reminder to the potential attendees the day before the event to ensure participation.

2.1. Physical/Virtual Location

Due to the limitations posed by the Covid-19 pandemic, it would arguably be more appropriate for the case of the actions of T6.3 **to organise virtual meetings, instead of physical events**. In this context, online platforms could be used along with e-tools. Indicative suggestions, together with reference links are provided below (***¡Error! No se encuentra el origen de la referencia.*** and ***¡Error! No se encuentra el origen de la referencia.***).

Table 2. Suggested platforms

Platform	Link
Microsoft Teams	*https://www.microsoft.com/en-us/microsoft-365/microsoft-teams/group-chat-software*
Zoom	*https://zoom.us/*
Jitsi.org	*https://jitsi.org/*
Google Hangouts	*https://hangouts.google.com/*
Webex	*https://www.webex.com/*
Bluejeans	*https://www.bluejeans.com/*
Slack	*https://slack.com/intl/en-gr/*

[1] An introductory presentation is available on the Google Drive repository of the iPRODUCE consortium.

Table 3. Suggested e-tools

E-tools	Description	Link
Miro	Online collaborative whiteboarding, library of templates, integration with web apps, good for brainstorming, sticky notes, freeform pen, shapes, arrows etc.	*https://miro.com/*
Mural	Sticky notes, text, shapes and connectors, icons, frameworks, images, gifs, Drawing	*https://www.mural.co/*
Be-novative	management and collaboration platform, virtual facilitator, breakout-rooms, brainstorming session.	*https://www.be-novative.com/*
Klaxoon	Visual collaboration, templates, video conferencing, Board, vote, brainstorming	*https://klaxoon.com/*
Google slides or Google docs	Sharing Presentations and documents	*https://workspace.google.com/intl/en_ie/*
Zoom built-in whiteboard	Sharing a whiteboard via Zoom	*https://zoom.us/*

2.2. Incentives

The engagement of ambassadors can be strengthened through the provision of incentives that are tailored to the needs of the local communities. Each cMDF can identify and provide the necessary incentives that better match their local context. Some indicative suggestions for incentives are provided below:

9. Access to the physical space of the cMDF:
    a. Guided tour to the space and machinery
    b. Free of charge use of machinery for prototyping and testing
    c. Provide a working space for social gatherings and co-creation events
10. Early access to the beta version of the OpIS platform and tools
11. Beta testing of the mobile application
12. Empower them to serve as project validators for the iPRODUCE platform and tools in the WP9 validation and testing phase.
13. New skills offered to Ambassadors
    a. Soft skills: pitch presentation of their ideas
    b. Hard skills: training to use specific machinery and/or digital tools
14. Share knowledge and skills: Ambassadors can organize their own events (e.g. webinars on specific topics) and identify capacity building needs at the pilot level
15. Invitation to participate in project or pilot events where they can present their ideas and projects (e.g. iPRODUCE consortium meeting, pilot events, etc.)
16. Tokenisation: feedback from CERTH is needed to explore potential rewarding schemes as means of incentivisation
17. Access to mentorship: provide preliminary guidance on potential ideas for products and services

3. Holding the event

The structure of the event will be defined according to its overall scope and objectives. An indicative structure is provided below:

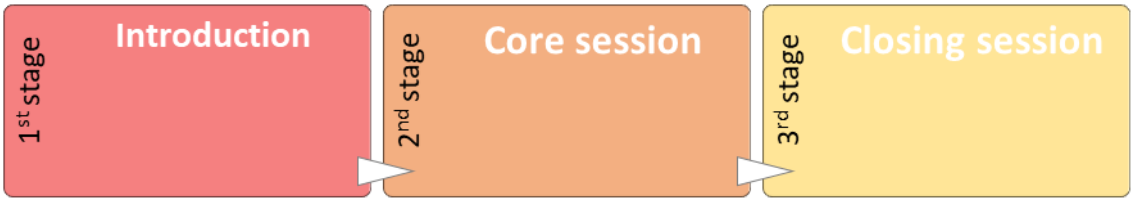

Figure 1. Event structure

Table 3. Indicative agenda

Event structure	Time	Description
Introduction	5’	The facilitator introduces himself and gives and overview the event structure and ask participants to sign online consent:
	10’	The facilitator introduces iPRODUCE and the local cMDF.
Core session Part 1	30-40’	Presentation of iPRODUCE platform, tools and use cases: - Present the iPRODUCE platform and tools using also videos and interactive demos - Present the use cases that are developed in your cMDF and explain which tools can be used and how.
Core session Part 2	35-45’	Discussion, Q&As, and/or invite to test the platform and tools: - Provide specific tools (e.g. questionnaires, feedback forms) to receive feedback on specific tools and features of the OpIS platform
Closing session	10’	Wrap-up and plan follow up actions with ambassadors to sustain their active engagement.

More information on each section of the event is provided below.

3.1. Introduction

During this stage, the participants get to know the project and each other for the next activities. Moderators could start by presenting themselves and, of course, explaining the scope of the day. **A short project presentation will definitely help to familiarise participants with the goals, concepts, and ideas of iPRODUCE and the local cMDF**. You may always take maximum advantage of the existing WP10 project promotional material (brochures, presentation, video produced by F6S). It would further be beneficial if you specified your specific cMDF’s objectives and their relevance to the iPRODUCE project. After that, the moderators can give an overview of the event structure, briefly explaining the tools and techniques that will be used during the event, if necessary.

Overall, this part aims at establishing a friendly atmosphere among participants, so that they participate with enthusiasm in the activities to follow.

3.2. Core Session

This is the central part of the event and its structure will be based on the specific needs of each event. Some indicative suggestions on tools and techniques are provided below:

- Presentation of iPRODUCE platform, tools and use cases:
  - Provide specific tools (e.g. questionnaires, feedback forms) to receive feedback on specific tools and features of the OpIS platform.
  - Check which tools can be tested *here* and the relevant material developed under WP9 validation activities.
- Discussion, Q&As, and/or invite to test the platform and tools:
  - Consider using online collaborative tools (Miro, Zoom whiteboard, gDraw) and make sure all participants understand how to use it
  - If using zoom, Meet or Teams, there's the possibility of having break out rooms and have people assigned to them automatically or manually. If this tool is being used, you can then divide the group in smaller groups and motivate discussion defining topics or posing specific questions. Present main ideas back to the main conference space (if in breakout rooms)
  - In case you organize some **co-creation/brainstorming** sessions, you may use simple or sophisticated brainstorming methods/techniques (see Annex), aiming to capturing visions, opinions and behaviours of participants around social manufacturing and makerspaces.

An <u>indicative</u> list of questions that could be posed during a co-creation session is provided below:

<u>Indicative</u> questions to be posed during the brainstorming session:

- *What is your overall experience of the iPRODUCE platform and tools?*
- *What tools and functionalities do you find more useful for collaborative manufacturing?*
- *What aspects of the iPRODUCE platform do you like most and least?*
- *What are your suggestions for improvement?*
- *What do you expect from your participation in this project as an Ambassador?*
- *Could you think of incentives for motivating participation in a collaborative production project?*

***Note:** The indicative questions enlisted above only serve as a food for thought to be considered while organising and structuring the content of your consultation workshops.*

3.3. Closing Session

This is the last stage of the event during which the facilitators will wrap up the workshop. This session will continue with a short discussion where organisers will thank ambassadors for their presence in the workshop and will underline the benefits of their involvement in this event as well as in the wider project framework. In the end, the organizers will inform the ambassadors on upcoming actions and activities to keep them involved in the project activities.

4. After the event

4.1. Event reporting template

After the end of each event, the organisers (cMDFs) should fill in the **event reporting template** (also shared via e-mail and uploaded in the Google Drive repository) and send it to WR. The template requires the information enlisted below:

1. **Event's Aggregate Data** (title, date, place, organisers, audience, duration)
2. **Event's goals, objectives and relevance to iPRODUCE**
3. **Organisation of the event**
4. **Event's promotion**
5. **Structure of the event (short minutes)**
6. **Outcomes of the event**
7. **Evaluation of the event**

Provide also:

- *The list of participants (if consent to store and share data was given)*
- *The agenda of the event*
- *Photos and/or videos*
- *Presentations (if applicable)*
- *Copies of materials used to promote the event (e.g. links to press releases, videos, posts, leaflets, etc.)*

Indicative questions to guide you for each section of reporting are provided in the template.

4.2. Follow ups – Establish communication channels with ambassadors

It is highly recommended that you establish periodic frequency communications with your ambassadors' pool through social media means or regular calls.

In the near future, we might consider inviting some ambassadors to attend an iPRODUCE plenary meeting or co-organizing activities.

GDPR – Informed Consent Form

Important! During the workshops' implementation, personal data (e.g. contact details, group photos or call screenshots) will be collected. **It is essential that all project activities fully comply with GDPR**.

To this aim, an **informed consent form** should be distributed and **signed by all participants** before the event officially begins.

- In the case of physical events, such a form should be signed by each participant.
- In the case of virtual events, an online consent form should be prepared by organisers and filled in by participants before the workshop takes place.

For further guidance, please consult the project coordination and the WP11-related material.

After the event participants have agreed to the terms and conditions in our consent form, it will be really useful if you could **take some pictures** (or screenshots in case of virtual meeting) of your white boards, post its or of your participants' brainstorming phase.

Please forward this content to the iPRODUCE Dissemination Manager (F6S) and Project Coordinator (AIDIMME) so that these events are properly highlighted. You could, also, also tweet / post these pictures in your organisations' social media. Once again, it is imperative that you first get the approval/consent of all your event's attendees.

Annex 3. Event reporting template

1. Event's Aggregate Data

Title	

Date	
Venue	
Organisers	
Audience (number and type)	Scientific Community (Higher Education, Research): Industry: Civil Society: General Public: Policy Makers: Media: Investors: Customers: Other:
Duration	

2. Event's goals, objectives and relevance to iPRODUCE

- What were the key objectives of this event/activity? (e.g. to gather ideas, gather data, find new stakeholders, etc)

3. Organisation of the event

- What steps were taken to set up the activity/event?
- What was the physical/virtual location of the event? Was there any particular reason for selecting this location?
- How were the target groups selected?

4. Event promotion

- How was the event/activity promoted and the participants invited?
- Was any project material (e.g. leaflet, poster, video, etc.) used for promotion?

5. Structure of the event

In case you organised the warm-up event in the context of an external event, please report what you did at the event.

- Briefly describe the structure and main parts of the warm-up event?
- Were any specific tools/methods used (e.g. brainstorming techniques)? Why were these selected?

6. Outcomes of the event

- What are the main outcomes of the event? (brief explanations are sufficient)
- Was information or data gathered as part of this activity?
- Were new ideas generated?
- Were there any outcomes relevant to the stakeholder engagement process? (e.g. new people interested in joining the CMDFs; new target groups identified; etc.)

7. Evaluation of the event

- What are the main takeaways from this activity? Are there any specific success factors?
- Did you face any challenges with this event/activity?
- When re-deploying this event/activity would you do it differently? If so, how?
- Did participants give you any feedback?

appendix 1 Attachments

- The list of participants (if consent to store and share data was given)
- The agenda of the event
- Photos and/or videos
- Presentations (if applicable)

- Copies of materials used to promote the event (e.g. links to press releases, videos, posts, leaflets, etc.)

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