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Co-creation Report

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Abstract (for public dissemination only)	This document describes the co-creation activities and highlights for the project and the communities of makers and hubs in Africa and Europe.
Keywords	Maker Movement, Makerspaces, Residency, DIHs, World Cafe, Open-Source, Co-Creation.



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List of Abbreviations

ΑΡΙ	Application Programme Interface
СА	Consortium Agreement
со	Confidential
СМР	Collaborative Manufacturing Platform
CoC	Code of Conduct
DDP	Distributed Design Platform
DIH	Digital Innovation Hub
DI	Digital Innovation
DoA	Description of Action
DOI	Digital Object Identifier
DSI	Digital Social Innovation
EBIMS	Engage, Build, Inspire, Maintain and Sustain
EC	European Commission
EGE	The European Group on Ethics in Science and New Technologies
ESO	Entrepreneurship Support Organisation
GA	Grant Agreement
GDPR	General Data Protection Regulations
H2020	Horizon 2020 program of the European Union
IIA	Integration, Inclusion and Attachment
IPR	Intellectual Property Rights



ORDP	Open Research Data Pilot
РМВ	Project Management Board
PU	Public
RE	Restricted
R&I	Research & Innovation
STEM	Science, Technology, Engineering, and Mathematics
SWOT	Strengths, Weaknesses, Opportunities, Threats
WP	Work Package

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Executive Summary

mAke aims to strengthen existing connections and create new Pan-African networks of Digital Innovation Hubs (DIHs), with a particular emphasis on makerspaces such as FabLabs, as well as open science and hardware spaces across Africa and Europe. The main goal is to foster collaboration between EU and African DIHs, thereby reinforcing a shared EU-Africa innovation and startup ecosystem. mAke is committed to linking makerspaces, which are vital to local digital innovation ecosystems, with global collaboration networks that aid in ongoing digitization efforts in both regions. The co-creation activities have actively engaged participants from **thirteen (13) African countries**: Ghana, Nigeria, South Africa, Senegal, Liberia, Tanzania, Rwanda, Cameroon, Chad, Ethiopia, Egypt, Gabon, Côte d'Ivoire, Kenya, Niger, and Uganda, alongside **six (6) European countries**: Denmark, Spain, Austria, France, Germany, and Belgium. Co-creation serves as a fundamental methodology within the mAke project, emphasizing collaborative approaches to achieve project outcomes. By bringing together diverse perspectives and expertise from both continents, these activities aim to drive innovation and address common challenges faced in digital transformation.

Introduction

In the context of mAkE, co-creation refers to collaborative approaches in the creation of the project outcomes. Adopting a multi-stakeholder approach in the design and development of the project products through co-creation has been a pivotal strategy toward gathering rich information and valuable resources for the communities impacted by the project. Further, collaboration and co-creation both with the target groups as well as within the consortium enabled mAkE to produce meaningful, qualitative and appropriate products that have already been adapted in numerous ways by makerspaces in Africa and in Europe.

Because of external factors such as Covid-19 and rising costs for travel as well as recurring issues obtaining visas for project participants from Africa, mAkE had to adapt a number of formats for co-creation during the course of the project. The positive side of this is the contribution to environmental sustainability while still enabling exchange due to blended working, learning and community building approaches. The mAkE blended approach to





gatherings has enabled remote participation, thereby lowering the environmental footprint and ensuring inclusivity. The co-creation process comprised of two approaches:

1. External

• Providing WPs with insights into real-world experiences and community engagement through external co-creation activities, and

2. Internal

• Exchanging and shaping combined knowledge, strategies and outputs through internal consortium co-creation activities.

Additionally, three main factors were considered crucial for successful implementation of co-creation activities:

- Leveraging the consortium networks and engaging communities,
- Choice of platforms, tools and techniques,
- Selection of suitable online and offline settings,

The formats were the same whether internal or external and the insights gained from this comprehensive approach highlight the transformative power of combining digital innovation with traditional engagement methods alongside key highlights from six WPs. In summary, the mAkE project has demonstrated how carefully selected approaches, processes and tools can strengthen collaborative efforts, fostering an environment where creativity and innovation thrive. This strategy addressed geographical challenges while celebrating the richness of diverse perspectives for future collaborative projects aiming to create a meaningful impact. This document further serves as a recommendation document covering the 3-year cross-continental blended on- and offline co-creation processes of the project.

Leveraging the consortium networks and engaging communities

The different networks within the consortium were actively engaged in the co-creation processes. The GIG community for example, actively participated in many different work package co-creation processes, including informing some of the case studies in the business models catalogue, partaking in the community calls, adding their data to the IOPA map and acting as mentors or resource providers for the Makers-in-Residency or the WP3 toolkit. Other networks and communities connected to the consortium that have been activated and engaged in mAkE activities include:

- The Fab City Foundation
 - Fab City Summit¹, Yucatan, Mexico 2024

¹ Fab City Summit Mexico 2024 – mAkE



- Distributed Design Platform
 - Dual Consortia workshop² 2024
- African Makerspace Network
 - Study Programme 2023³

mAkE also connected with networks previously not known or connected with via the consortium members as well as newly formed networks including:

- Afrilabs
 - Annual Gathering 2024 Makerspace Track⁴
- Vulca
 - Annual Seminar 2024⁵
 - Makers-in-Residency Program⁶ 2023/4

Choice of platforms, tools and techniques

The consortium partners, with support from WP5 and WP6 in areas such as design, outreach, dissemination, and community engagement, employed a range of platforms, tools, and techniques to promote co-creation. Their online activities featured webinars, forums, and workshops, while offline endeavors included workshops, exhibits, and conference-style gatherings. These efforts collectively nurtured an inclusive atmosphere that encouraged the sharing and integration of diverse perspectives into the project. The consortium highlighted the significance of feedback loops, ensuring participants felt acknowledged and valued through interviews and surveys.

The in-person co-creation sessions of WP1 enabled follow-up activities with the participants we engaged, facilitating further research, survey distribution, and more comprehensive interviews. Among, as one example, a total of one hundred and fifteen (115) online co-creation sessions, sixty (60) focused specifically on interviews. Consequently, these interviews became a vital third layer in the techniques used, highlighting their immense value. The qualitative insights gathered during this format significantly influenced the resources developed through co-collaboration. As a result, interviews were incorporated into subsequent resources and reports, such as the Makers-in-Residency

⁶ <u>Call for African Makers for the 2024 Residency program – mAkE</u>



This project has received funding from the European Union's Horizon 2020 research and innovation

² <u>Distributed Design Platform x mAkE Africa Manifesto</u>

³ <u>Africa Makerspace Network Study Program 2023 – mAkE</u>

⁴ mAkE at AfriLabs Annual Gathering – mAkE

⁵ mAkE at Vulca Seminars – mAkE

programme under Grant Agreement No 101016858.

report, to extract insights and guide future program recommendations, forming part of the project's legacy. By utilizing digital tools, they broadened their outreach, engaging stakeholders from various regions and backgrounds. Simultaneously, in-person events fostered deeper connections and spontaneous idea exchanges, enriching the collaborative experience. Consequently, the project not only achieved its goals but also cultivated a vibrant community dedicated to future initiatives through the founding of a new partner network between the AU and EU which will be elaborated upon in the Deliverable 6.4 – the Sustainability Report.

Selection of suitable online and offline settings

To facilitate co-creation, different processes were investigated and tailored. Offline events primarily adopted a World Café workshop format. This structured conversational approach promotes open dialogue and idea sharing among participants. Typically set in a café-like environment, the World Café⁷ creates a relaxed and informal space conducive to meaningful conversations. Participants are divided into small groups, each addressing a specific question or theme, and then rotate between tables, encouraging the flow of ideas. This method not only ignites creativity and collaboration but also ensures that varied perspectives are recognized and woven into the project's outcomes.

Online workshops mainly featured webinars conducted via Zoom, enhanced by active participation through Miro boards. Miro⁸ is an online collaborative whiteboard platform that enables real-time teamwork, regardless of location. This tool proved essential for dynamic brainstorming sessions, allowing participants to visually organize their thoughts, share insights, and co-design solutions. The integration of Miro boards enriched the interactive quality of the webinars, promoting deeper engagement with the content and fostering effective contributions to discussions.

⁸ Miro | The Innovation Workspace



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 101016858.

⁷ World Cafe Method | The World Cafe

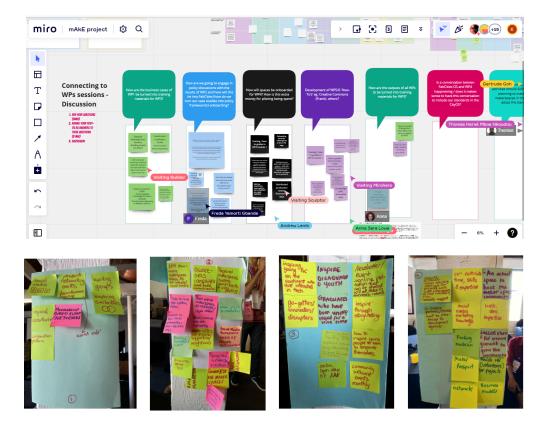


Figure 01: The online Miro co-creation and the physical version of the same process.

By merging these innovative approaches, the mAkE project has bridged the gap between digital and physical interactions. This dual strategy not only increased participation but also enhanced the co-creation process, making it more inclusive and comprehensive. The combination of World Café workshops with asynchronous communication tools like Miro and Zoom empowered participants to co-create in an engaging and impactful way, ensuring that project outcomes reflected the diverse communities involved. Further, by integrating World Café workshops into the mAkE project, the consortium tapped into the collective insights of its participants, weaving together a rich tapestry of ideas and solutions. These workshops complemented online co-creation initiatives, offering a balanced blend of digital and face-to-face interactions that amplified the project's overall impact.

Activity Summary

During the project term, two hundred and four **(204)** co-creation sessions took place. Over one hundred and forty eight **(148)** online and fifty six **(56)** offline events took place across



at least thirteen **(13)** African and six **(6)** European countries with the addition of the UK, Scotland, and global inputs from specifically events in Mexico and the USA during the course of the project. The online sessions participation ranged from five (5) to twenty (20) people with an average of fifteen (15) to thirty (30) in-person participants with the consortium preference tending towards smaller more targeted participant groups.

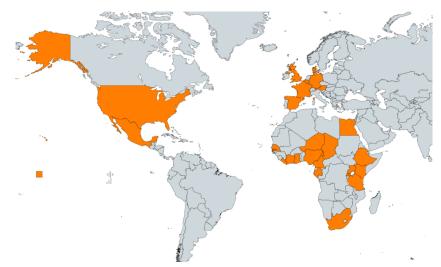


Figure 02: The activities in the co-creation segment highlighted in orange on the map.

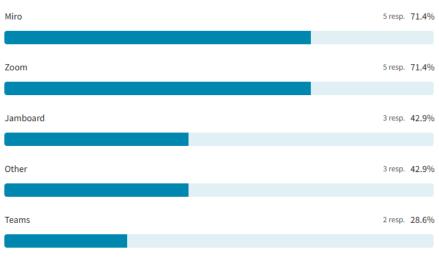
A diverse group of stakeholders was involved from venture builders and investors in WP1 to civil society policy experts in WP2 and of course makers and makerspaces themselves. The cross-continental blended on- and offline co-creation processes were therefore rated as equally valuable as well as additionally, interviews and surveys being cited as crucial. The diverse communities coming together resulted not only in the exchange of practices from a variety of design and maker backgrounds but also in expanding the network of each of the participants, enriching the co-creation activities further (read more in the feature in the policy workshop detail on page 16).





Figure 03: A World Cafe session as part of their development of the Open Catalogue of Business Models.

What platforms were used for the online co-creation workshops?



7 out of 7 answered





Highlights of Activities

This section highlights four distinct activities within four of the work packages that employ co-creation techniques. The success of these initiatives emphasized the significance of adaptability in co-creation processes. By utilizing both online and offline tools, the teams were able to capitalize on the strengths of each method, ultimately improving the quality and impact of their results. This flexible strategy enabled a rich exchange of ideas and perspectives while empowering participants by offering various ways to contribute. As the projects progressed, the teams remained receptive to trying out new tools and methodologies, ensuring their co-creation processes evolved alongside technological advancements and the changing needs of their participants.

WP1: Co-creation of New Ventures

The primary objective of this task is to connect European and African innovators to collaboratively co-create and co-found new ventures. Given the inherent challenges in establishing intercontinental ventures—particularly because many founders prefer locally based co-founders to facilitate easier collaboration—it was essential to design a process that fosters trust and encourages long-term partnerships. Recognizing that trust often takes time to develop, we focused on creating community-based events as an initial platform for connecting and co-creation.

Highlight event: Innovating for Impact

Public investors, including prominent European organisations such as Siemens, Bayer, and SAP, alongside public institutions like German Federal Ministry for Economic Cooperation and Development (BMZ) and GIZ, participated in a detailed session on the innovation hubs known as *UNDP Accelerator Labs* organised by GreenTec. This session introduced the overall concept and methodologies of the Accelerator Labs, pitching three impactful case studies from Zimbabwe, North Macedonia, and the Philippines to showcase the Labs' approach to fostering local solutions and creating scalable innovations. This event brought public investors to understand the importance of innovation hubs and to in the long run collaborate with and invest in them. In the latter part of the event, participants engaged in interactive work sessions (World Cafe style), exploring specific ways to generate measurable impact through future partnerships. The event concluded with a "commitment game" to reinforce shared goals, followed by an informal networking dinner, which facilitated





deeper discussions on potential collaborations.

Figure 05: Innovating for Impact event in Berlin, hosted by UNDP Accelerator Labs and BMZ.

Several follow-up conversations took place after the event, leading to new partnership possibilities. These matchmaking events provided a structured yet informal setting for makers and innovators to meet, share ideas, and discuss common challenges, helping to bridge the geographical, cultural and funding gaps that can hinder cross-border collaborations. By introducing innovators into an established and supportive community, these events have fostered a foundation of trust and mutual understanding essential for continued and successful collaboration.

WP2: Co-creation of Policy Briefs

DDP and mAkE Consortias Workshop

During a community event in Barcelona, two consortia combined their creative forces in a common workshop. Its objective was, on one hand, to explore the potential of the African and European maker, design, and innovation spaces. And on the other hand, to utilize this knowledge and experience to be able to transform them into recommendations that can shape policies. But how can one translate the amazing ideas, opportunities, and challenges



that need to be overcome and have the potential to be solved by wisely placed policies on regional and national levels? This was the work of the Fab City Foundation through Freda Yamorti Gbande in the framework of mAkE, and policy designer, strategist, decolonial futurist Nyangala Zolho⁹.



Figure 06: Co-creation around the common policy agenda topics.

In the mAkE project, months of participatory research have led to 5 policy agenda items. Five areas in which policy can enable a shift that will lead the innovation ecosystem to thrive. However, now these agenda items need to be brought to the policymakers. And this is where Nyangala came in. Nyangala specializes in policy learning environments. During her workshop in collaboration with the Distributed Design Platform (DDP) for both of the consortia, she guided the participants through the practical steps on how to translate what needs to be done to the people who need to hear it, in an accessible way. Making each participant a policy shaper. Through a step-by-step manner, she guided the participants from the inputs of the mAkE Policy agenda, presented by Freda, to understanding policy (makers) in general, knowing the audience (type of policymakers), knowing the right language to use, and how what needs to be done can get phrased practically and directly to those policymakers. The outcomes of the workshop were captured in a multimedia manifesto, inviting the participants to practice their newly gained skills; they presented their policy proposals in front of the whole group. Captured by the team at Fab Lab Barcelona, this multimedia maker manifesto was released in July 2024.

⁹ https://www.nyangalazolho.com/about



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 101016858.

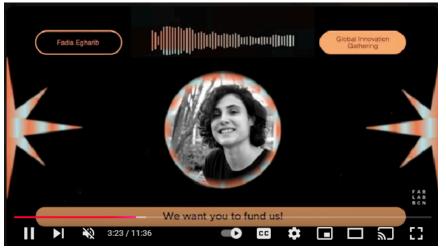


Figure 07: Screengrab of the Manifesto video which can be found here.

The insights gathered are: the right to repair act, recognition of maker spaces as educational spaces, integration of makerspace approaches into curricula, and that every child should have access to maker education.

WP3: Co-creation of Educational Tools

From Barcelona to Accra, the key outcomes are enhanced knowledge and skills, stakeholder engagement, workshop blueprint, among others. To ensure a continuous improvement of the educational tools, WP3 also used the participants' feedback surveys. A summary of the development is highlighted in the section below.

Open Makerspace Toolkit (OMT)

Crafted under the auspices of mAkE Work Package 3 (WP3), the Open Makerspace Toolkit (OMT) is a resource aimed at supporting establishment, management, and sustainability of open, collaborative and innovative makerspaces (and other types of Digital Innovation Hubs). Comprising five sections, the OMT serves as a guide for key stakeholders including makers, policy makers, and funders, providing insights and resources for fostering vibrant makerspaces. To ensure its relevance and utility, different members of the mAkE consortium have collaboratively contributed to the OMT's development, through a methodology encompassing research, survey, content creation and peer review. Moreover, a <u>questionnaire</u> has been conducted to collect relevant existing open educational resources



(OER) on how to set up, manage, equip and sustain different types of open, collaborative and innovative makerspaces and other kinds of DIHs.



Figure 08: Survey for the OMT.

We are committed to ensure a broad accessibility and usability of the Toolkit, to leverage public access platforms. That is why, through the <u>online version</u> of the OMT, we are fostering ongoing dialogue and collaboration with stakeholders, to meet the evolving needs of the African and European (and global) maker communities, thereby maximising its long-term impact and sustainability.

WP4: Co-creation of a Distributed Manufacturing Platform

The objective of work package 4 is to increase opportunities for hardware DIHs to engage in socially driven business and collaborative capacity building by access to three enabling digital infrastructures that enable distributed manufacturing across the mAkE network by sharing 1) skills, 2) machinery and 3) contracts. In order to develop and adapt the systems and tools that enable distributed manufacturing, but also create an impact for the





communities, a series of workshops and co-creation sessions were held to collect data, and insights.

Map of Machinery

Data collection

The creation of the map starts by collecting data from the Consortium partners (AMN, AOSH and GIG) to populate that map. data collection А form (https://map.internetofproduction.org/data-submission/index.html) was developed to

collect data on machines, facilities, people and materials, by location, needed to engage in distributed manufacturing. The Map of Machinery aggregates data from diverse sources, creating a centralized platform that supports the mAkE consortium of partners and the broader maker movement in Africa and Europe.

The data collected were collected to the platform Airtable, the Consortium partners have access to, and updates and adds directly new data. Following the General Data Privacy Regulation for the European Union, an explanation of the data processing, purpose and contact information is required, for an informed data contribution keeping the rights of the contributor for deletion, modification and privacy. From the Consortium networks, fifty nine (59) new locations were collected.



Another form of collection of this data came from an initiative launched by the Internet of Production, the Open Know-Where Data Awards. The <u>OKW Data Awards</u>¹⁰ provided financial support for projects that integrate existing datasets or collect new data related to the mapping of manufacturing capabilities. Round 1 of the OKW Data Awards (2022) provided the experience of applying the standard in community projects, bringing closer the goal of OKW for being an initiative to help map manufacturing facilities and machinery for use in decentralized manufacturing.

¹⁰ <u>https://www.internetofproduction.org/news/okw-manufacturing-world-map-data-awards-2</u>



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 101016858.

The objective for 2023 was to map at least 150,000 points of interest (i.e.: facilities and machinery), under the OKW initiative. This mapping, in addition to benefiting community makers in finding where to produce items, contributed to the development of the infrastructure for the distributed production of hardware: a global map of facilities, machines, and tools, based on shared open data and open APIs.

An overall count of 20,000 records was aggregated, and after filtering out were obtained 10,308 unique records with a minimal set of attributes "name, (latitude, longitude, or address), (capability or machine), and (URL, e-mail or phone number)".



<u>Use cases</u>

OKW working groups meetings¹¹ are held regularly by the Internet of Production to support the work on the Map of Machinery, determine use cases and review the innovation. During the designing process of the map, a series of interviews were conducted within the mAkE consortium community members.

The interviewing process aimed to gather relevant use cases to enhance understanding of the purpose and value of the Map of Machinery, ensuring it benefits communities and creates a meaningful impact. The interview process followed after the request for writing a project charter, and finding clear projects to develop community engagement, these projects will serve to

motivate community members to share data, provide feedback with a clear purpose and tangible outcome. The findings are available for viewing and further contribution here: <u>https://community.internetofproduction.org/t/okw-working-group-action-plan-step-1-one-to-one-conversations/647</u>.

Four use cases were identified:

- Disaster response,
- Economical development data,
- Learning for makerspaces,

¹¹ https://community.internetofproduction.org/t/okw-initiative-group-meetings-monthly-schedule/588



• Data tools for hardware designers.

The disaster response scenario opened the interest in makers to share their information in an organic way. Detailed use cases detailed can be found here: <u>https://map.internetofproduction.org/use-cases/index.html</u>

Contracting system

A contracting system prototype was developed to enable participants in a distributed manufacturing (DM) scenario to assign specific roles to the relevant entities involved. Once participants designate which entities will handle each role in the scenario, the system recommends the appropriate contractual relationships needed between these entities. This ensures clear delineation of responsibilities and accountability throughout the DM process. Virtual trials of the contracting system prototype were conducted: 1 online and 2 as focus group activity at international events (A-MEG and VULCA, Nov. 2024).

The online run counted seven (7) participants, including consortium partners and makerspace managers and members of the mAKE network. The in-person workshops (focus group) held in Germany (Vulca) and in South Africa (A-MEG) counted respectively sixteen (16) and sixty (60) participants.

The feasibility of a distributed manufacturing platform in Africa was discussed, focusing on its potential benefits, such as increased market access, standardization of quality,



and streamlined contracting, alongside significant challenges. Participants emphasized motivating manufacturers through accessible contracts and quality incentives but raised concerns about scaling production, maintaining quality standards, and addressing regulatory requirements, especially in sensitive sectors like medical devices.

Automation was seen as beneficial for efficiency and transparency, though questions about balancing automation with accountability and trust remained. Customers highlighted the importance of quality control, trust in manufacturers, and collaboration, advocating for mechanisms like certifications, selective manufacturer participation, and cost-effective quality checks.



In Europe, the workshop echoed these themes, emphasizing quality assurance, resource management, collaboration, and the importance of retaining makerspaces' educational and community-driven missions. Addressing these challenges will require balancing innovation, trust, and user-focused design to unlock distributed manufacturing's potential.

WP5: Co-creation of the Visual Identity

The project logo and visual elements aim to capture the vibrancy of relationships between innovators across Europe and Africa. It has been designed by IAAC through a co-design process which included all project partners. It included different steps and approach, among them:

- a collection of photos by the partners: partners were actively involved in the definition of the visual identity of the project by adding visual representation examples, such as photos from their organization and activities. This served as an inspiration for the identity of the project.
- **a moodboard:** a moodboard is a visual tool that communicates concepts and visual ideas. It was used to identify the project identity through various examples of representation. Participants had to vote for each representation according to their taste and to what the project representation would be.

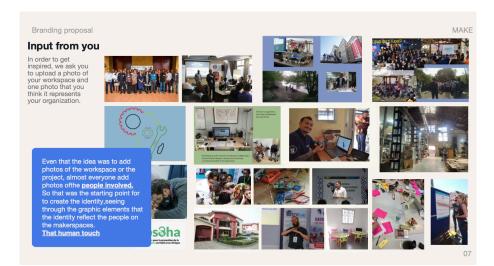






Figure 09: Collection of photos by partners and Moodboard representations and graphic results.

 a stakeholder mapping: stakeholder mapping is the visual process of laying out all the stakeholders of a product, project, or idea on one map. The main benefit of a stakeholder map is to get a visual representation of all the people who can influence the project and how they are connected.

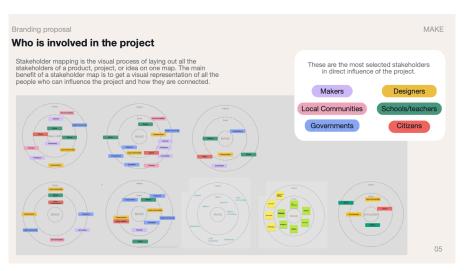


Figure 10: Stakeholder mapping graphic representation.

Within WP5, several co-creation sessions took place also for brainstorming around D5.3 "Set of recommendations for a global innovation ecosystem technical solution for



platform integration". At least three (3) co-creation sessions took place during the last part of the project, two online and one offline in Cape Town. The platforms where the sessions happened were Jamboard or Miroboard, and the calls took place on Google meet or Zoom. In addition, Slido was also used to get participants more engaged and involved, and also to visualize outputs in a different way. The third session took place in Cape Town in an offline format, with the use of Miro to get written feedback, but at the same time a more direct interaction was useful to get active participation.

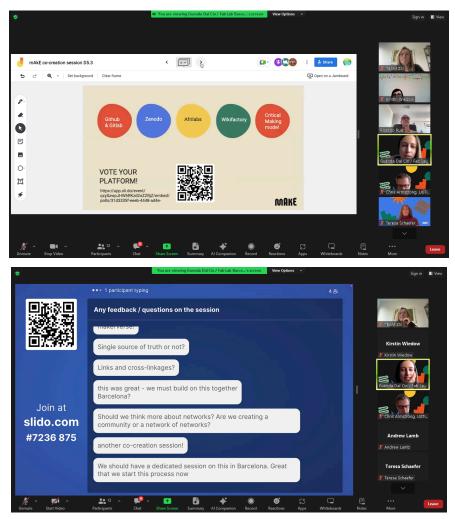
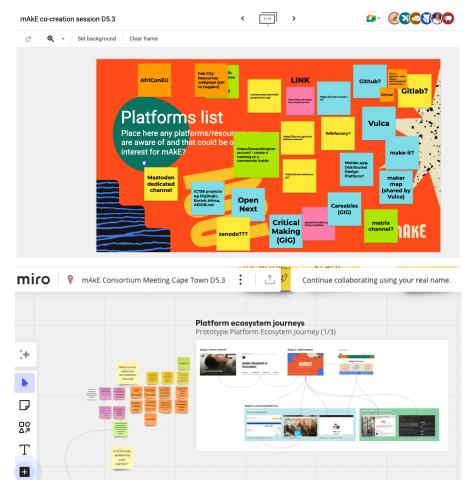
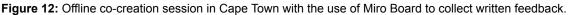


Figure 11: Online co-creation session, second image showing Slido interaction.







WP6: Co-creation via Community Calls

The primary goal of collaboratively co-creating was a cross-cutting activity within each work package supported by WP6 as well as with external stakeholder groups according to the Community Activation and Engagement strategy. In WP6, specifically, the emphasis was on engaging and activating communities, aligned to the strategies in deliverable 6.1 and 6.3, within the consortium networks as well as expanding into new networks. A total of fifteen (15) community-based events served as the platform for connection and co-creation, nine (9) online and six (6) in-person with the reach pushing further to include Vulca as a newly engaged community network alongside existing engaged community networks of the



African Makerspace Network and GIG. Notably, one of the online co-creation sessions featured a collaboration between another ICT-58 family project, Digilogic, towards developing their policy guidelines document¹².

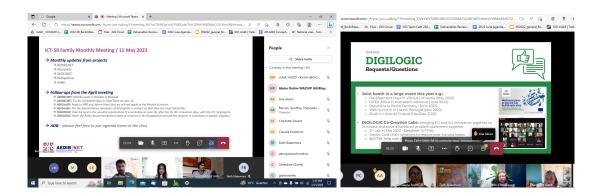


Figure 13: The online co-creation activities with ICT-58 family, Digilogic

MIR Community Calls

The diverse perspectives brought to the table through three (3) larger MIR community calls enriched the discussions, participants found value in the shared experiences and insights from global community members as well as the makers and makerspace hosts. This collective engagement not only strengthened the bonds within the community but also empowered individuals to take ownership of their roles within the program. As the program progressed, the WP1 and 6 teams facilitated dedicated weekly group calls for the one month residency duration, which became a cornerstone of the continued co-creation of the Makers-in-Residency experience. They provided a platform for continuous learning and growth, reinforcing the community's commitment to co-creation.

The positive momentum gained from these interactions set the stage for future collaborations, as members felt more equipped and motivated to tackle challenges and seize opportunities together and the GIG and Vulca communities aim to continue with residencies in the future.

¹² DIGILOGIC Policy Recommendations Workshop_v0.6



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 101016858.



Figure 14: The community calls for MIR.

Lessons Learned

Throughout the project's duration, consortium team members faced challenges related to poor internet connectivity and bandwidth, affecting both African and European participants when using online webinar tools and connecting to co-creation platforms like Miro. In some instances, Jamboard was preferred due to its lighter data requirements, but its discontinuation led to a reliance on Miro.

The pros and cons of online versus face-to-face co-creation were frequently addressed in consortium meetings. The significance of in-person gatherings is immense, as they facilitate smoother and more organic discussions. However, the difficulties in assembling the community, particularly the MIR participants, proved to be quite overwhelming. The visa process often delayed the travel of the makers, in some instances, for over a year without resolution. A survey¹³ was conducted in November 2024 where participants highlighted that face-to-face interactions encouraged deeper engagement and collaboration, allowing for spontaneous ideas to emerge and build on one another in real-time. This setting also fostered stronger interpersonal relationships, crucial for establishing trust and

¹³ <u>https://csrw0ts1gp4.typeform.com/report/uvh3Qp3m/u6Y2N9DJPoXyXNfv</u>



understanding among team members and the targeted maker and innovator communities essential for successful co-creation. The majority of the activities hosted smaller groups, a highlight of these engagements for WP1 team member, Anna Sera Lowe, found that it was a 'Much **richer engagement** for in-person sessions, people are more forthcoming, engaged and the discussions get going. It also allows them to know the community better by understanding their needs, and how they solve those in their own organisations.'

Conversely, online co-creation provided flexibility and inclusivity, allowing team members from various locations to participate without travel constraints. This collaboration method proved to be cost-effective and offered a wider array of perspectives, enhancing the creative process with diverse insights. In order to try to achieve balance, the consortium explored hybrid methods that merged the advantages of both online and face-to-face interactions. This strategy, continuing on from the WP deliverables mentioned prior, sought to maintain the efficiency of virtual meetings while harnessing the energy of in-person gatherings. It also incorporated asynchronous communication tools to ensure that all voices were heard, even if some participants could not attend simultaneously. However, this approach proved to be quite disruptive, not only affecting the co-creation groups but also creating a challenging environment for online participants, who found it difficult to engage in discussions and often had to disrupt the flow due to connectivity issues.

As the project advanced, the WP6 team consciously continued to evaluate the effectiveness of the co-creation strategies to enhance innovation and collaboration and participated in the WP sessions throughout the project term. In order to further enrich the project through co-creation, two additional collaboration calls are planned for early 2025 with Digilogic and Enrich in Africa (ICT-58 family) to incorporate their learnings into the Deliverable 6.4, the Sustainability Report.

Conclusion

By bridging geographical divides, the mAkE project further allowed the dual focus on external and internal, online and offline co-creation to provide a space for the dynamic



exchange of ideas, ensuring that the project was both responsive to community needs and aligned with consortium goals. Highlighting an outcome of the co-creation processes, Anna Sera Lowe said that 'The WP1 in-person co-creation sessions all led to follow-up work with the people we had the chance to engage with to conduct new research, sending surveys and having more in-depth interviews. Of our **115** online co-creation sessions, **60** were interviews'.

Thus, by carefully selecting stakeholders, engaging in meaningful ways and leveraging existing networks, the project cultivated a more diverse, engaged and inclusive ecosystem. Reflecting on the investor and maker co-creation events, Fabienne Kirchhof, WP1 lead, mentioned that 'Siemens, for example, expressed a strong interest in **collaborating** with the UNDP Accelerator Labs. They participated in the UNDP co-creation session at the Hamburg Sustainability Conference, where both organisations further explored their partnership potential and aligned on sustainable development goals."



Figure 15: The final gathering took place in Cape Town in November 2024.

This diversity enriched the co-creation process, not only from maker to maker but also from organisation to organisation, eg. ESO to Private Sector. Bringing a multitude of perspectives to the table has supported and enhanced the overall quality of the outcomes.





Moving forward, the lessons learned from the mAkE project consortium hope to inspire future initiatives, encouraging them to adopt similar strategies for fostering innovation and sustainability, creating a legacy that extends beyond the immediate outcomes to influence future generations of the African and European makers and innovators communities.

