

IMPACT EVALUATION REPORT

PLANET ONE PROJECT 2021-2024



PLANET ONE

FRYSHUSET

GREENPEACE



Armenian Progressive Youth



Part of Postcode Lottery Group

IMPACT EVALUATION REPORT

PLANET ONE PROJECT 2021-2024



Written by
Julia Hedberg (Greenpeace)

With support from
Sofia Gustafsson (Fryshuset), **Anna Kringberg** (Fryshuset) & **Nora Kokanova** (NIRAS)

Introduction

Planet One was a project with the vision to **support the growing global youth movement for climate justice**.

This collaborative project between Fryshuset and Greenpeace aimed to combine the two organizations' long experience and strengths in meeting, engaging and building platforms for youth as well environment and climate justice.



Based on the Maker movement's methodology of creating common physical places and providing tools for **learning-by-doing**, youth in **Budapest** (Hungary), **Johannesburg** (South Africa), **Nairobi** (Kenya), **Stockholm** (Sweden), **Yaoundé** (Cameroon) and **Yerevan** (Armenia) set the base of a global network of local **makerspaces**.

These makerspaces **enabled youth to get involved in the climate justice movement** by providing space and opportunities to realize their ideas. They could run their own projects and campaigns, come up with sustainable innovations, organize activities and events, and so much more. The makerspaces were flexible and designed for and together with youth.

Summary of Impact evaluation findings

This report provides an overview of the outcomes, achievements, challenges and recommendations from the Planet One project's makerspaces, located across **Armenia, Cameroon, Hungary, Kenya, South Africa and Sweden**. These makerspaces served as **hubs for youth engagement**, skill-building and community influence in addressing climate and environmental issues, while also addressing the challenges encountered during its implementation.

All of the project's quantitative objectives were reached - and most were even exceeded - with 45,785 participants aged 15-25 years old engaged in 3,985 activities. Some of the highlights put forward were that **91% of participants reported connecting with people they would not otherwise have met**, showcasing the makerspaces' role in fostering diverse social and professional networks. Further, **85% of participants reported that the makerspaces influenced how they see themselves and their future**. Additionally, **82% of the participants felt they could influence climate and environmental issues in their local communities** thanks to the makerspaces, and **65% said they would have had fewer opportunities to influence their communities without the makerspaces**.

The makerspaces **significantly contributed to the empowerment and skill development of their participants**. Many youths gained valuable leadership, advocacy and entrepreneurial skills, enabling them to actively engage in climate and environmental initiatives. The makerspaces also **nurtured creativity and collaboration**, evidenced by impactful community projects such as podcasts, eco-parks and waste management campaigns. These initiatives demonstrated the tangible outcomes achieved by participants.

Despite these successes, **challenges** were identified. Barriers such as financial constraints, political instability, community resistance and lack of environmental awareness challenged the youths' ability to create lasting change. Burnout and mental health challenges among youth were also highlighted as challenges and further hindered the project's impact. Structural issues, such as insufficient infrastructure and logistical barriers, also posed significant challenges. The makerspaces addressed these issues as well as they could by providing training, mentorship and platforms for creative engagement.

This internal impact evaluation underscores **the pivotal role of makerspaces in shaping resilient, capable leaders ready to influence systemic change for climate justice and environmental action**. To ensure continuity, this impact evaluation report recommends increasing access to leadership and advocacy training, expanding funding and mentorship opportunities, and fostering local and global networking. **By prioritizing sustainability and addressing systemic barriers, the makerspaces can continue to empower youth changemakers and amplify their impact on a global scale.**

Key findings of Impact evaluation

- The Planet One project exceeded all of its **quantitative objectives**, engaging **45,785 participants** aged 15-25 across **3,985 activities**, surpassing the target of 21,000 participants.
- **6,809 youth-led initiatives** were launched, exceeding the goal of 6,000, with initiatives ranging from community gardens to workshops.
- The project achieved over **4 million digital views** across social media platforms, demonstrating significant digital outreach.
- **91%** of participants **connected with people** they would not have otherwise met, demonstrating the makerspaces' role in fostering diverse networks.
- **85%** of participants reported the makerspaces positively **influenced their outlook on the future**.
- **82%** of participants **felt empowered to influence** climate and environmental issues in their local communities. And **65%** of participants believed they would have had **fewer opportunities** to influence their communities without the makerspaces.
- The makerspaces **empowered youths** with leadership, advocacy and entrepreneurial skills, enabling youth engagement that led to tangible impacts locally, such as renewable energy systems and urban farms, and globally, through participation in international exchanges and events like the UN's civil society conferences.
- The makerspaces successfully attracted a **diverse demographic of participants** in terms of gender, age and geographic location. However, socio-economic diversity remained a challenge, with many participants coming from urban and middle-class backgrounds.
- **Challenges** included financial constraints, political instability, community resistance, lack of awareness, mental health issues, and structural barriers like insufficient infrastructure.
- **Long-term sustainability**: Despite success during the project period, concerns about the long-term financial and structural sustainability of makerspaces were highlighted, emphasizing the need for embedded sustainability frameworks and ongoing support.

Analysis of key findings

This section delves into the project's key achievements, lessons learned and areas for improvement, providing a comprehensive analysis of its impact. It highlights the critical role of makerspaces in fostering leadership, creativity and advocacy among young participants while addressing the systemic and logistical challenges faced during the project. The conclusions drawn reflect on the project's ability to adapt to local contexts, the transformative potential of youth-led initiatives and the steps needed to ensure sustainability and scalability in future programs.

Diversity

Creating makerspaces where a diverse group of youth engage with each other has been an important, and challenging, goal in this project. All of the makerspaces have succeeded in attracting youth of different ages, genders, engagement and interests, while most have had challenges to attract youth from different socio-economic backgrounds. Most of the youths coming to the makerspaces have been middle-class and university educated youth. At Ubunifu Hub however they have succeeded in bringing in a diversity of youth, including youth from informal settlements, young mothers, youth without education and university students. This has been the result of extensive outreach to different communities in both urban and rural areas. The challenge though has been to get them to collaborate with each other. This is a challenge that has not been as apparent at the other makerspaces. The challenge at Ubunifu Hub most likely stems from the diversity in socio-economic background since they to a larger extent have different needs and interests than youth from similar backgrounds, and therefore it has been a challenge for them to connect.

There is a quite even spread of youth that has been engaged in climate and environmental issues for years and youths that have no prior engagement before coming to the makerspaces. Both of these groups keep coming back to the makerspaces together as well as new youths. At Ubuntu Hub there were some challenges with the age range of the target group in the beginning, but through working with older youths and training them to become mentors, the number of younger youths has increased in the later stage of the project compared to the beginning where there were mostly older youths coming to the makerspace. These results show that to some extent there has been an increase of diverse youth coming to the makerspaces over time, throughout the project.

Hope for the future

One of the aims of this project was to increase youth's faith/belief in the future. We wanted to instill hope for the future in the youth coming to the makerspaces and make them feel empowered to create the future they wish to see. The results show that a majority (63%) of the participants feel positive or very positive about their future, but there are big differences across continents.

The African makerspaces (Mboa Hub, Ubunifu Hub, Ubuntu Hub) have predominantly participants that feel positive or very positive about their future. The majority of their participants also think that the makerspaces have influenced the way they feel about their future in a positive way. They are highlighting various ways in which the makerspaces have increased their hope for the future. For example through skill and knowledge development, belonging to a community that is supportive, increased confidence in their abilities, as well as the practical tools for activism and environmental advocacy they have gained.

However, looking at the responses of how youth feel about the future at the European makerspaces (Alternative, Bolygó, Momentum), the findings are much less positive. For example, as many as 85% of the respondents at Momentum are worried or very worried about the future. At Alternative and Bolygó the percentage is less, but still higher than the African makerspaces. The reasons highlighted are similar across the countries; the extent of the climate crisis, the inaction of the people in power and political instability nationally and internationally, which brings feelings of anxiety, fear and uncertainty for the future. One key thing to keep in mind while analyzing these results is that the number of survey responses at Bolygó and Momentum are much lower than the other countries. Also, the respondents are mostly very engaged climate activists and a pretty homogeneous group of youth. If there would have been a larger sample and diversity amongst the respondents, these results might have looked differently. One thing that a majority of the respondents at all makerspaces said was that the makerspace had influenced their feelings about the future in a positive way, regardless of how they feel about their future in general. This reflects the makerspaces' significant role in shaping participants' futures in a positive way by enhancing their skills and fostering a supportive, impactful community.

Climate & environmental knowledge

The uniqueness of this project was to combine Greenpeace knowledge about climate and environmental issues with Fryshuset's and Armenian Progressive Youth's expertise in inclusion and participation of youth. The majority of the participants engaging at the makerspace agree or strongly agree that they have gained more knowledge about the climate crisis through the makerspace, both for 2023 and 2024. This shows that the collaboration between the organizations has successfully increased the awareness of climate and environmental issues of youth by conducting it in a way that has resonated, empowered and engaged youths. The establishment of the makerspaces has depicted and addressed a need that was not previously addressed by other actors in many of the project countries. It has not only educated and given opportunities to youth to get involved in the fight for climate justice, but also supported and empowered them to grow as people. Something they hopefully will take with them after the project.

Youth's ability to influence

Youth's ability to influence has grown significantly through the makerspaces' programs, learning series and activities, enhancing participants' confidence and capacity to impact climate and environmental issues. 82% of respondents felt they could influence their local communities, and 65% noted they would have had fewer opportunities to do so without the makerspaces, with 14% having no opportunity at all otherwise.

Participants have led workshops, campaigns and hands-on projects such as tree planting, clean-up drives and creation of sustainable gardens. Creative advocacy using arts, photography, podcasts and digital media has expanded their outreach, while training programs and collaborations have fostered a network of changemakers.

However, challenges such as apathy, misconceptions and generational gaps in understanding climate issues have limited these efforts. Systemic barriers, including lack of infrastructure, ineffective policies and socio-economic disparities, have further complicated sustainable practices. To overcome these, participants emphasized the need for enhanced training, mentorship, financial support, and resources like skill-sharing platforms, youth networks and inclusive, safe spaces. Suggested solutions included establishing skill-sharing platforms, youth networks and inclusive community spaces while promoting creative approaches like "artivism" to engage diverse audiences. Strengthening infrastructure, providing resources and fostering global partnerships are essential to ensuring that the makerspaces continue to support youth's advocacy work.

While some challenges were addressed during the project, continued support will be crucial post-project. The digital toolkit and global network created by the global team will aid skill-sharing and collaboration. Most importantly, the makerspaces, which will remain operational in 2025, will provide safe and supportive environments for youth to learn, engage and influence their communities further.

Local & global changes created by the youth

Youth engagement within the makerspaces has driven tangible local and global changes, showcasing the power of grassroots activism and collaborative efforts. Locally, participants have organized impactful campaigns, including raising petitions to ministries that halted mining projects through coordinated advocacy. Workshops on plastic education and community outreach programs enhanced environmental awareness at the grassroots level, while creative advocacy efforts resulted in podcasts, paintings, comics and board games that addressed climate issues in innovative ways. Artworks like Denzel Juma's paintings gained international acclaim, featuring in events such as UN civil society conferences, highlighting the role of art in environmental advocacy.

Practical solutions emerged through the implementation of renewable energy systems, like solar panels at Mboa Hub, and the establishment of urban farms using sustainable techniques. Groups like *Wisemen CBO* transformed former street children into environmentally conscious entrepreneurs through projects like urban farming and pig farming, offering livelihood opportunities alongside climate action. Community networking efforts, such as the Nairobi Youth Congress's "Sincerely Nairobi" podcast, and movements like Ubunifu's eco-train initiative, fostered local collaboration and inspired collective action.

Globally, youth participation in international exchanges expanded their perspectives and connected local efforts to the broader climate justice movement. Skills gained through the makerspaces were replicated in participants' communities, with groups like *Tuvuli* training others in content creation to highlight environmental issues. These efforts led to a shift in narratives, where environmentalism was shared as a fulfilling and transformative practice. By fostering capacity building, promoting innovation and enabling global engagement, the makerspaces have empowered and encouraged youth to become changemakers, which will most likely lead to even more actual changes in the future.

Organizational learnings

The Planet One project highlighted the critical importance of tailoring strategies to local contexts to achieve effective global programming. The diverse social, political, and economic realities across Armenia, Cameroon, Hungary, Kenya, South Africa and Sweden required flexibility in project design. Allowing makerspaces to co-design strategies would have better aligned activities with the unique socio-political and cultural realities of each region, improving participant engagement and project relevance. Local adaptability emerged as a foundational principle, ensuring the project addressed the specific needs and challenges of its diverse regions.

Despite achieving its quantitative objectives, the project faced several challenges. Burnout and workload management emerged as significant issues for both youths and staff, driven by heavy workloads and tight deadlines. Regular check-ins, mental health workshops and workload adjustments during peak activity periods could have mitigated these challenges. Additionally, late clarification of certain targets, such as the youth-led initiatives objective, caused initial confusion during implementation. Clearer objectives and guidelines from the outset would have streamlined operations and enhanced cohesion across makerspaces.

In the makerspace operations, regular youth input and involvement in planning proved crucial for fostering engagement and building autonomy. Introducing internships and expanding Youth leaders' roles effectively encouraged leadership and participation. However, staffing needs were underestimated, leading to overwork and burnout in some hubs, necessitating better role definitions and additional hires to balance workloads.

Collaboration between makerspaces was limited, as many focused on building strong local foundations before engaging in global activities. While this local-first approach had benefits, it reduced opportunities for collective innovation and knowledge-sharing. Facilitating more local-to-local exchanges, peer-to-peer learning and joint planning could have enhanced resource distribution and best practices. Logistical barriers, such as time zone differences and internet connectivity issues, further hindered collaboration. However, the weekly Core team meetings and the physical meet-up in Nairobi in 2023 were vital for building relationships, good cooperation and trust. The collaboration between the global team and the local teams provided valuable support in areas such as finance and communication, and the shared learning between makerspaces that did happen enhanced operational effectiveness.

Concerns about the long-term sustainability of initiatives, both financially and structurally, were also evident. While the makerspaces provided valuable resources during the project, the lack of a long-term sustainability framework created uncertainty about continuity. Embedding sustainability mechanisms early, such as training participants in grant-writing and supporting income-generating initiatives, could have addressed these challenges and ensured the enduring impact of the makerspaces. By prioritizing these elements, the project could have further amplified its long-term effectiveness.

Conclusions of Impact evaluation

Local adaptability: The success of the Planet One project underscored the importance of tailoring approaches to local socio-political and cultural contexts. Allowing makerspaces to co-design strategies would have better aligned activities with local realities, enhancing engagement and effectiveness.

Youth empowerment: The project significantly increased participants' ability to influence climate and environmental issues. Through workshops, campaigns and creative advocacy, participants developed practical skills, confidence and a deeper understanding of climate issues, which translated into tangible local and global changes.

Quantitative success: The project exceeded its quantitative objectives, engaging over 45,000 participants and initiating 6,809 youth-led initiatives. This demonstrated the makerspaces' capacity to foster large-scale engagement and action.

Collaboration gaps: Limited opportunities for cross-makerspace collaboration hindered knowledge-sharing and collective innovation. Facilitating more local-to-local exchanges could have strengthened collective outcomes.

Mental health: Heavy workloads and tight deadlines led to significant stress among participants and staff. Introducing better workload management systems, regular check-ins and mental health workshops is essential to ensure well-being.

Diversity challenges: While the project achieved gender diversity, socio-economic diversity was limited in most makerspaces. Efforts to attract and engage youths from varied socio-economic backgrounds, such as those at Ubunifu Hub, revealed the importance of targeted outreach and inclusive programming.

Global & local impact: Participants influenced their communities by organizing workshops, creating eco-friendly projects, and advocating for systemic changes. Globally, the makerspaces facilitated youth exchanges and linked local actions to broader climate justice efforts.

Long-term sustainability: Concerns about the financial and structural sustainability of initiatives were evident. Embedding early mechanisms for long-term sustainability would have ensured continuity beyond the project's lifespan.

These conclusions highlight the transformative potential of makerspaces in empowering youth while emphasizing the need for contextualized strategies, robust support systems and sustainability planning for long-term impact.

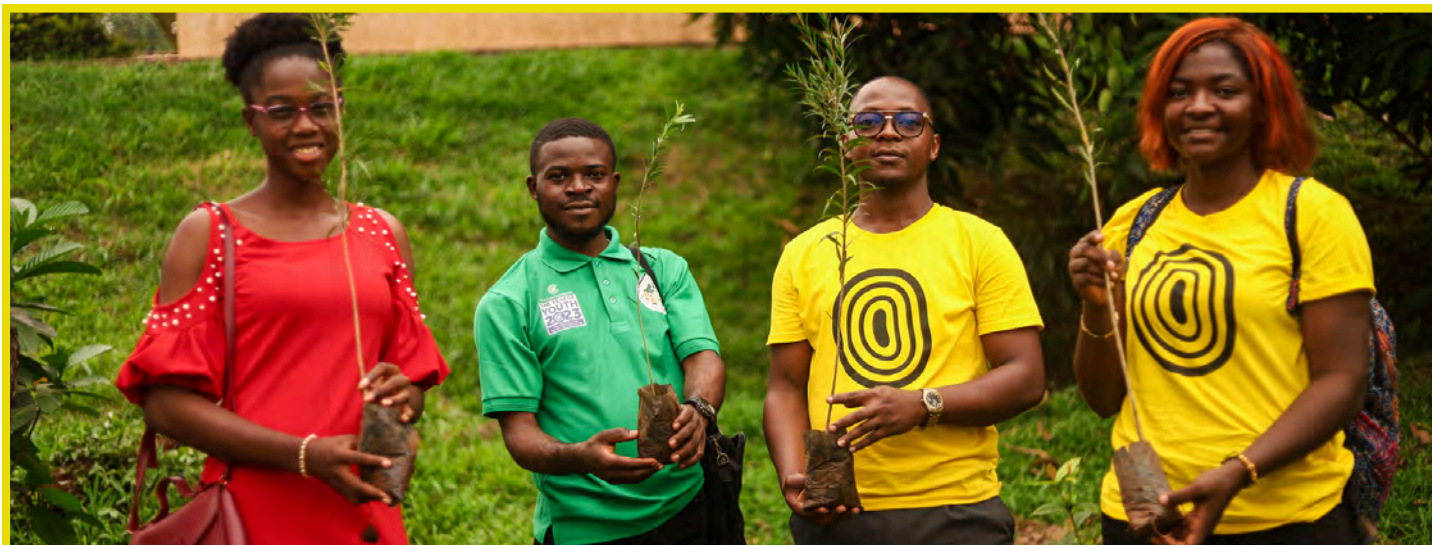
PART 1: Qualitative results

Indicators

The purpose of the **Impact evaluation** was to ensure that the Planet One project was able to report to the funder on the indicators presented in the project application, as well as to support the internal learning process and development of our work.

The **5 indicators** captured through the Impact evaluation were:

1. *The diversity of youths from different backgrounds and contexts who meet and participate in the makerspaces increases over time*
2. *Increased faith belief in the future amongst youths*
3. *Increased understanding among the participants of the underlying causes of the climate crisis and the challenges it leads to*
4. *An increased feeling of being able to influence climate issues*
5. *Number of actual changes locally and globally as a direct effect of youth engagement at the makerspaces.*



Participant surveys 2023 & 2024

Two participant surveys were conducted to gather insights from makerspace participants. The first survey, distributed over 3.5 weeks in September 2023, included 10 mandatory Likert scale questions and 5 optional open-answer questions, with the option for makerspaces to add one additional open-answer question. The second survey, conducted between mid-August and mid-October 2024, featured 11 mandatory Likert scale questions and 8 optional open-answer questions, with the same opportunity for additional questions. Both surveys were translated into local languages where necessary and made available digitally (via Google Form and QR code) and in printed form, ensuring broad accessibility. In total **430 responses** by participants within the target group were collected.

Focus group discussions 2024

Focus group discussions were organized at all six makerspaces. Youths engaged at the makerspaces were invited to discuss four open-ended questions. Each makerspace conducted two one-hour long focus group discussions with five youth participants, one facilitator and two notetakers (Youth team leaders). The discussions were organized during the makerspace opening hours and were conducted in late February to early March, 2024.

Staff evaluation workshops 2023 & 2024

The evaluation workshops aimed to gather insights from Local coordinators and Youth team leaders on key aspects of the Planet One project. In 2023, discussions focused on two specific indicators (indicator 1 & 5), while in 2024, the scope expanded to assess the project's short- and long-term effects and identify lessons learned. Conducted during Core team meetings in October 2023 and 2024, small group discussions (3-6 participants) included representatives from all six makerspaces.

Key findings of qualitative results

The findings below highlight the transformative role of the makerspaces in empowering youths to address climate and environmental issues while navigating and adapting to diverse challenges across global contexts.

- **Gender diversity:** All makerspaces exhibited gender diversity, but a majority of participants were female. Some participants identified as "Other" or preferred not to disclose their gender.
- **Age diversity:** Most participants were between 20-25 years old, with fewer younger participants (under 20) at some makerspaces, like Ubunifu Hub and Ubuntu Hub.
- **Socio-economic diversity:** Most participants came from middle-class backgrounds and lived in urban areas, which made the group relatively homogenous.
- **Engagement:** A blend of long-term and new participants enriched the community dialogue, particularly at Bolygó and Momentum.
- **Community building:** 91% of participants reported meeting individuals they would not have met otherwise, showcasing the effectiveness of makerspaces in fostering diverse social connections.
- **Skill development:** The makerspaces were instrumental in building skills, fostering environmental knowledge, and empowering youths to take climate action.
- **Empowerment:** Training sessions and workshops enhanced participants' practical skills, confidence, and capacity for leading change.
- **Personal impact & growth:** 85% of participants reported that makerspaces influenced how they saw themselves and their future.
- **New perspectives:** Youths shifted their perspectives from seeing environmentalism as a sacrifice to viewing it as liberation and empowerment.
- **Makerspace offers:** Contributions included access to free, accessible spaces, mentorship and capacity-building activities that promoted collaboration and creativity.
- **Community influence:** 82% of respondents felt they could influence climate and environmental issues in their local communities thanks to the makerspace.

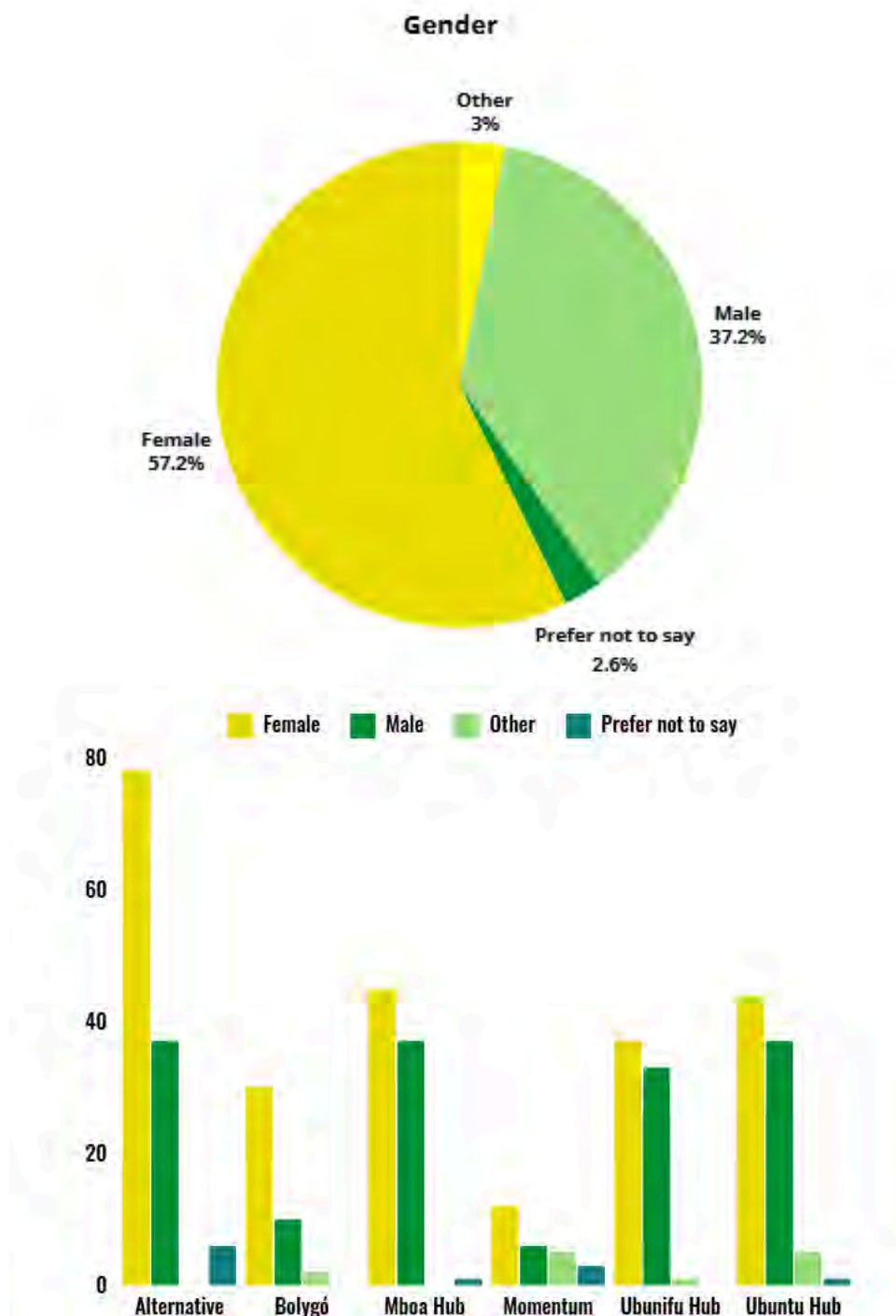
- **Opportunity to influence:** 65% said they would have had fewer opportunities to influence their communities without the makerspaces.
- **Increased hope:** Participants, particularly at the African makerspaces, expressed increased hope for the future due to community support and the empowerment gained through the makerspaces.
- **Engagement beyond the makerspaces:** The makerspaces inspired participants to extend their climate engagement beyond the makerspace walls through education, advocacy and creative initiatives.
- **Youth changemakers:** The makerspaces have prepared a group of inspired and equipped youth changemakers ready to take on climate challenges, advocate for justice and inspire systemic change.
- **Behavioral change:** The makerspaces significantly impacted participants' behaviors, fostering proactive, informed and collaborative approaches to climate and social justice issues.
- **Intersectional advocacy:** Connecting climate justice to broader social issues like human rights has proven effective in engaging diverse youth populations.
- **Capacity building & networking:** The makerspaces facilitated global and local connections, offering opportunities for skill development, innovative thinking and professional growth.
- **Future challenges:** Common challenges include financial constraints, lack of education, systemic barriers, societal polarization, political instability as well as personal mental health issues. Economic hardships and the need for income generation also make it difficult to engage some youths in climate initiatives purely for advocacy and activism.

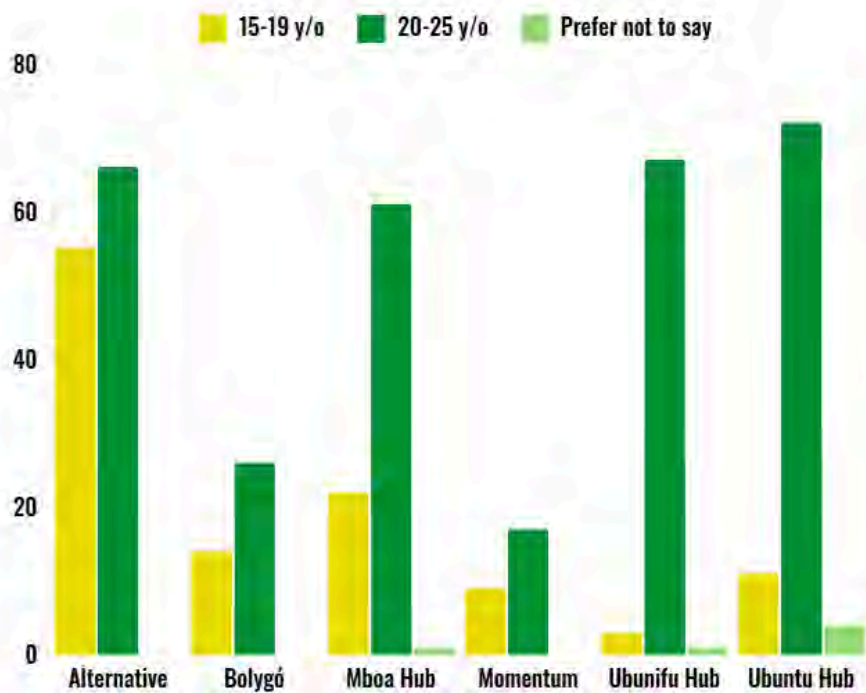
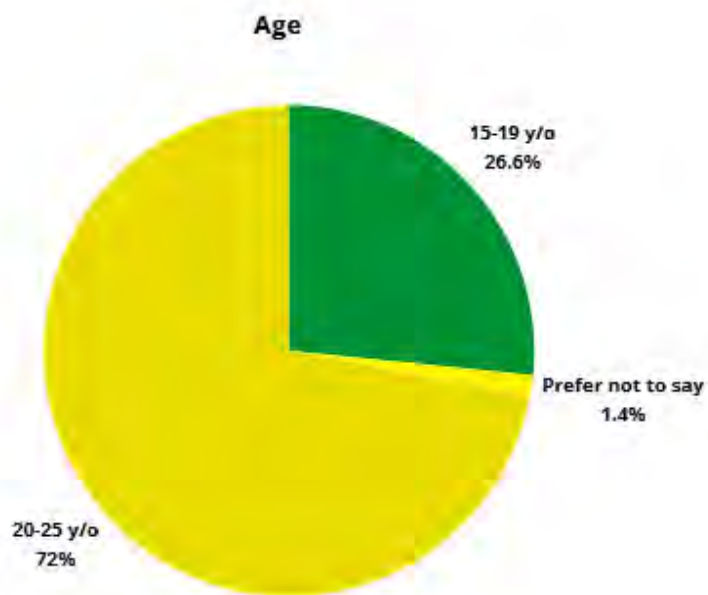
INDICATOR 1: The diversity of youths from different backgrounds and contexts who meet and participate in the makerspaces increases over time

Key findings

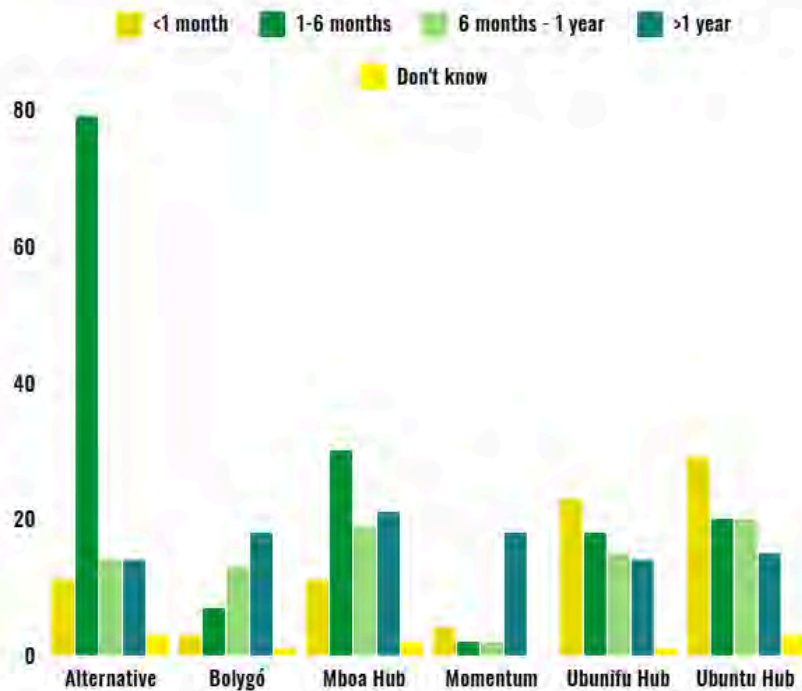
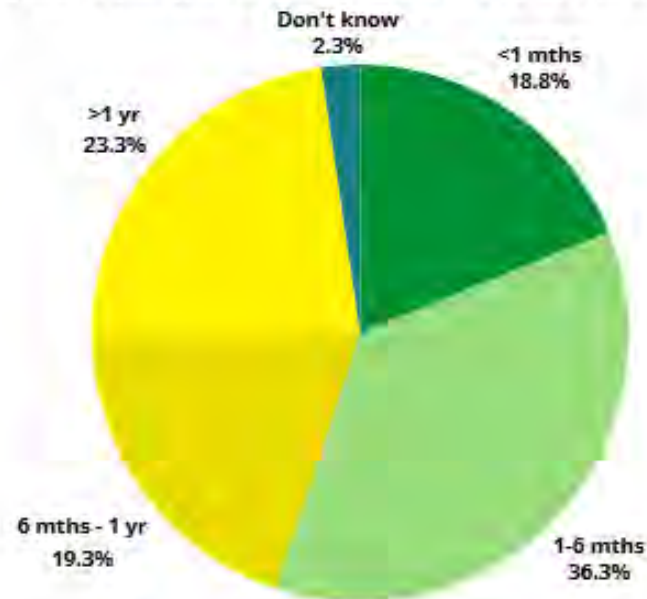
- **Gender diversity:** The majority of participants at the makerspaces are female, with some respondents identifying as "Other" or opting not to disclose their gender. Gender diversity is present across all makerspaces, although some like Alternative and Momentum have higher rates of undisclosed gender identities.
- **Age range:** Most participants fall between 20 and 25 years old. Younger participants under 20 years are notably fewer at certain makerspaces, like Ubunifu Hub and Ubuntu Hub.
- **Socio-economic diversity:** There is limited socio-economic diversity at most makerspaces, with most participants from urban, middle-class backgrounds. Alternative and Ubunifu Hub stand out for having participants from both urban and rural areas, offering a more socio-economically diverse setting.
- **Engagement:** There is a varied length of engagement, with a steady influx of new participants and a substantial proportion returning for over a year, especially at Bolygó and Momentum, which were among the first makerspaces to open. Makerspaces like Ubuntu Hub and Momentum see a mix of long-engaged climate activists and newer members. This diversity reflects a blend of seasoned and fresh perspectives, enriching the makerspaces' community dialogue.
- **Skill development & empowerment:** Many participants valued the makerspaces as spaces for learning new skills, gaining environmental knowledge, and feeling empowered to take climate action. These spaces provided motivation and support to increase their engagement in environmental activism.
- **Community building:** 91% of participants reported meeting people they wouldn't have interacted with otherwise, indicating that the makerspaces successfully fostered new social and professional connections among diverse groups.
- **Participant engagement:** Mboa Hub, Ubunifu Hub, and Ubuntu Hub are appreciated for providing a platform for learning and networking, while Alternative, Bolygó, and Momentum were noted for being safe social spaces that inspire youth engagement.
- **Community influence:** 82% of respondents felt they could influence climate and environmental issues in their local communities thanks to the makerspace.
- **Opportunity to influence:** 65% said they would have had fewer opportunities to influence their communities without the makerspaces.

- **Increased hope:** Participants, particularly at the African makerspaces, expressed increased hope for the future due to community support and the empowerment gained through the makerspaces.
- **Interaction:** At Ubunifu Hub, youths from diverse backgrounds sometimes find it challenging to interact across different social categories, impacting collaboration. Ubuntu Hub also has limited cross-background interactions but has fostered strong age-diverse mentorship.
- **Safe spaces:** Several responses emphasized the makerspaces as safe and inclusive spaces where individuals felt welcomed and free to express themselves. Alternative and Momentum have become significant safe spaces for LGBTQIA+ youth, offering a welcoming environment for individuals often underserved by other local resources.





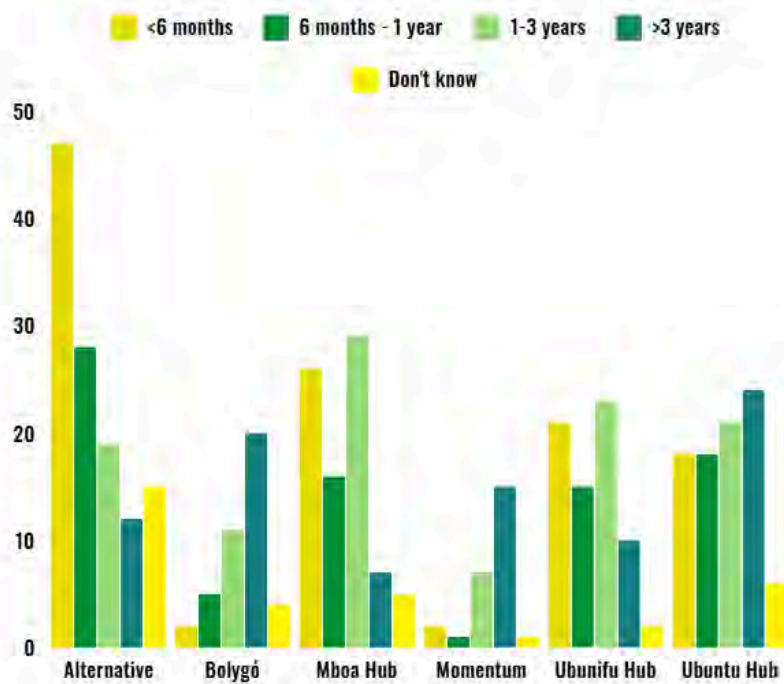
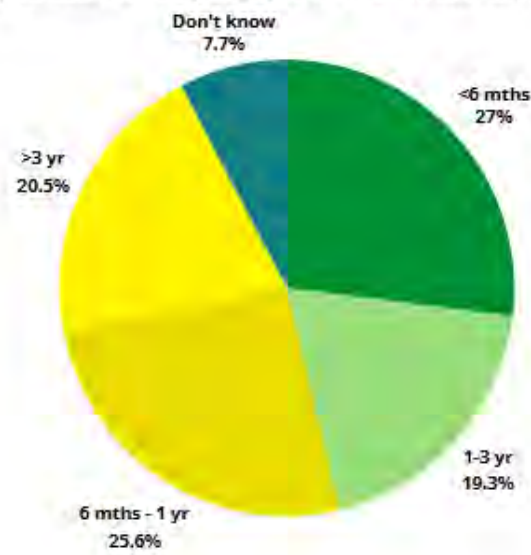
How long have you participated in activities at the makerspace?



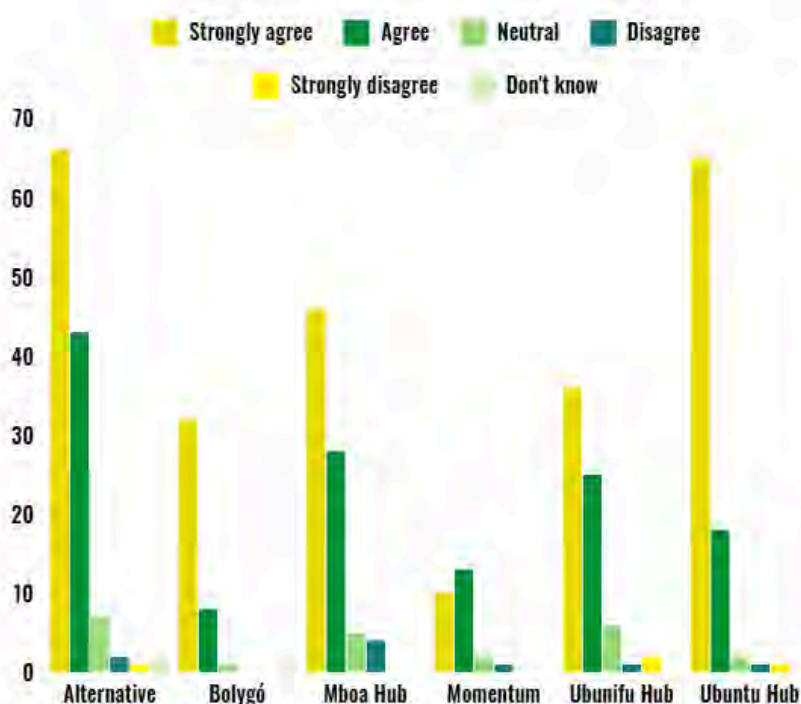
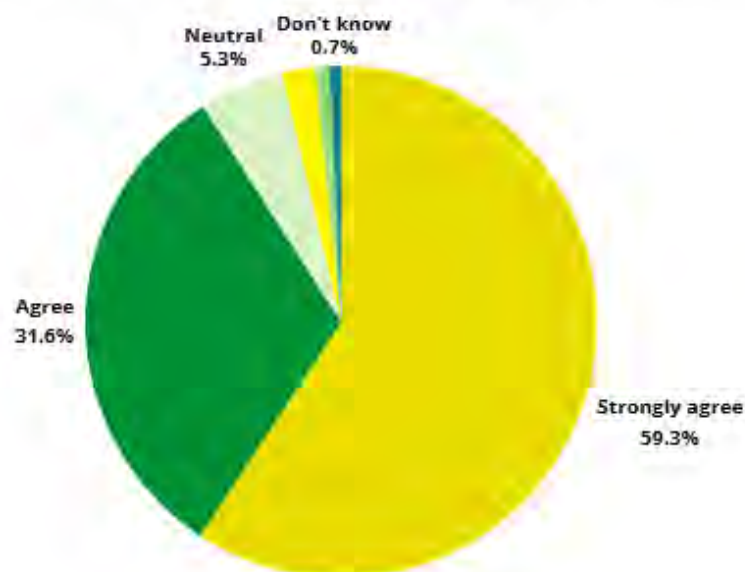
What has the participation at the makerspace meant for you?



How long have you been actively engaged in climate and environmental issues?



Through the makerspace I have met friends/acquaintances/contacts whom I would not otherwise interact with

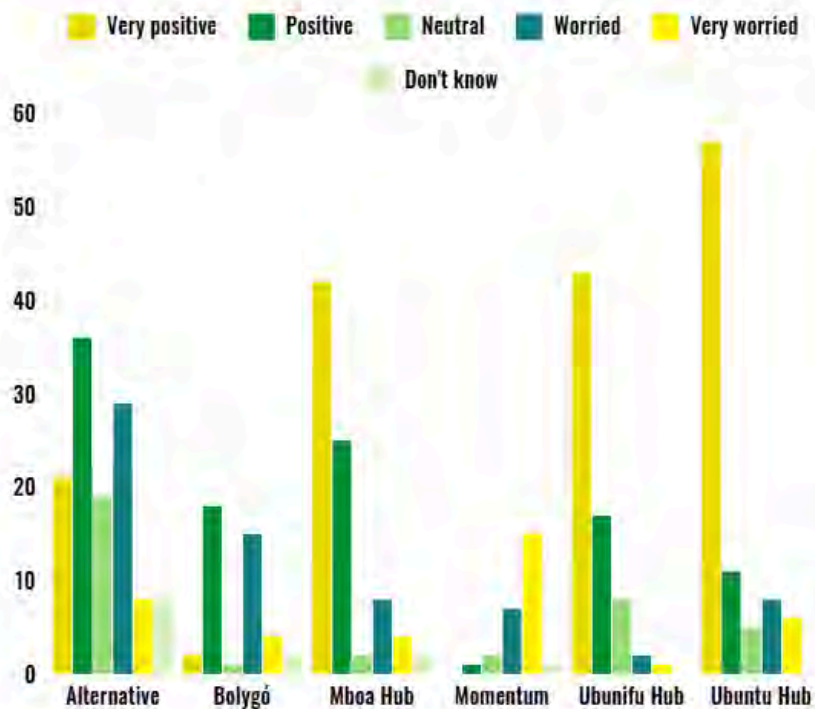
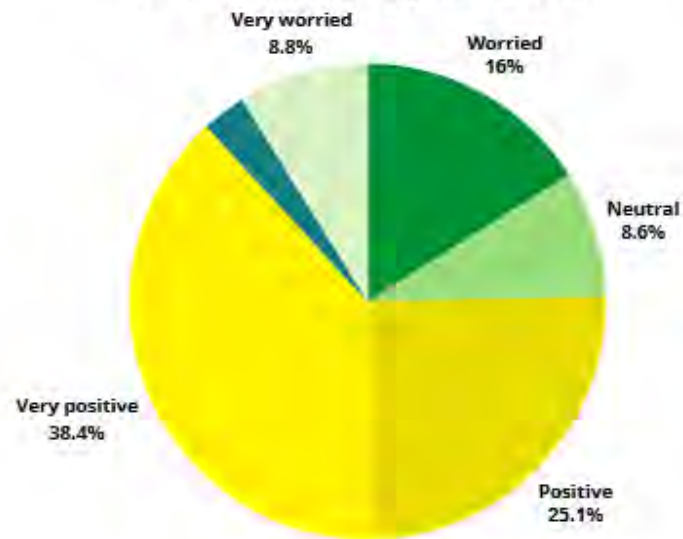


INDICATOR 2: Increased faith/belief in the future amongst youths

Key findings

- **Youth's feelings about their future:**
 - 64% of the respondents reported a positive or very positive outlook on their future.
 - High percentages of worried or very worried youths at Momentum (85%), Bolygó (45%), and Alternative (30%), driven by concerns over the climate crisis and political instability.
 - African makerspaces (Mboa Hub, Ubunifu Hub & Ubuntu Hub) reported more positive outlooks (78%-85%), attributed to self-belief, community support, and cultural factors like religion.
- **Impact of makerspace participation:** 85% of participants stated that their participation in the makerspace influenced how they see themselves and their future. At Mboa Hub and Momentum, no respondents reported no impact from their makerspace involvement.
- **Skill & knowledge development:** Training sessions and workshops provided practical skills, climate justice insights, and sustainable practices, fostering confidence in shaping their futures.
- **Community & support:** Participants valued the strong sense of belonging, mutual encouragement and networking opportunities, often supported by intercultural exchanges.
- **Confidence & personal growth:** Makerspace involvement boosted self-confidence through project management, discussions and leading initiatives, empowering participants.
- **Role models & mentorship:** Mentors and role models provided guidance, positively influencing participants' ambitions and self-perception.
- **Increased hope:** Hands-on experiences and activism opportunities shifted perspectives towards hope and optimism for tackling climate challenges.
- **The vital role of the makerspaces:** The makerspaces have had a significant role in building skills, fostering community and inspiring hope and empowerment among the youths.

When I think about my future, I feel:



64%

of youth participants feel positive about their future.

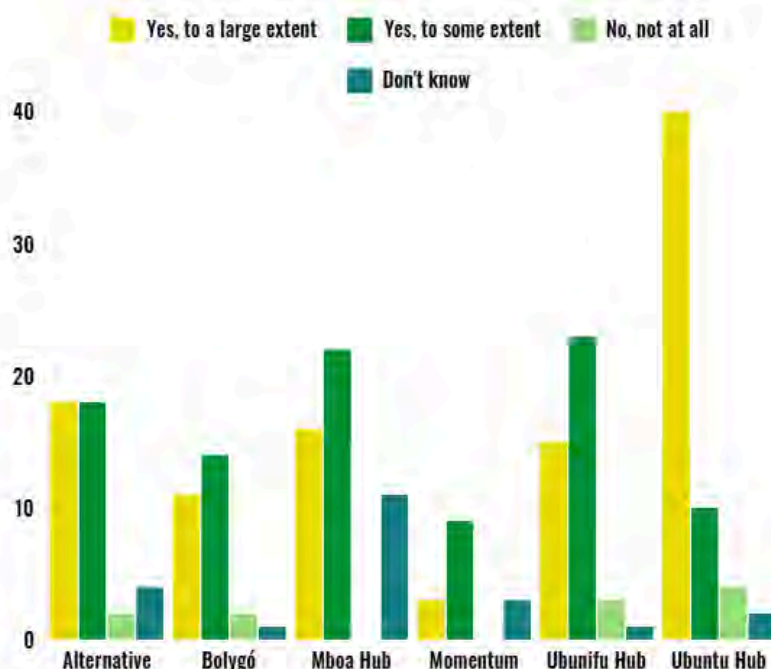
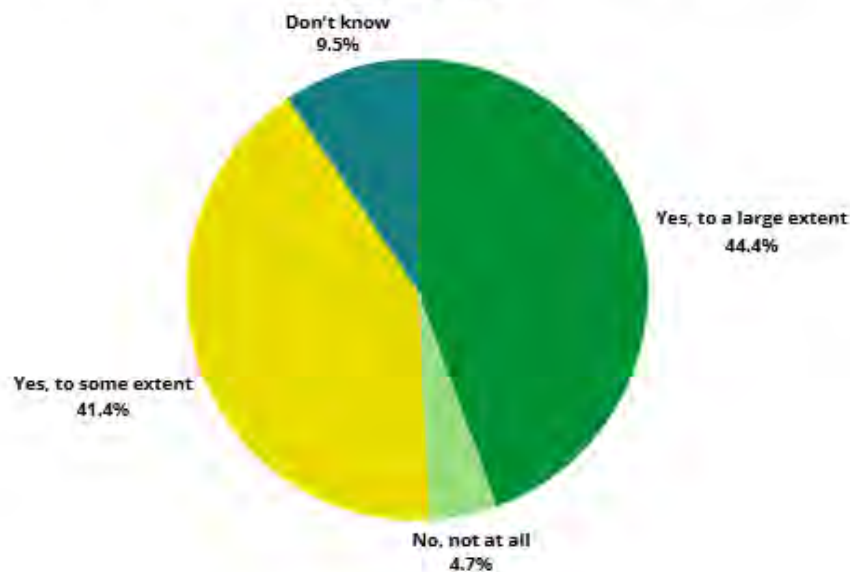
“

The collective fight towards the climate crisis gives me hope and reduces my anxiety.

Participant at Ubunifu Hub, Kenya



Has your participation at the makerspace influenced the way you feel about your future?



“

I feel optimistic about my future because of the diverse experiences I've gained through leadership, youth programs, and environmental activism. These have fueled my passion for positive change and given me the confidence to pursue impactful opportunities that align with my values.

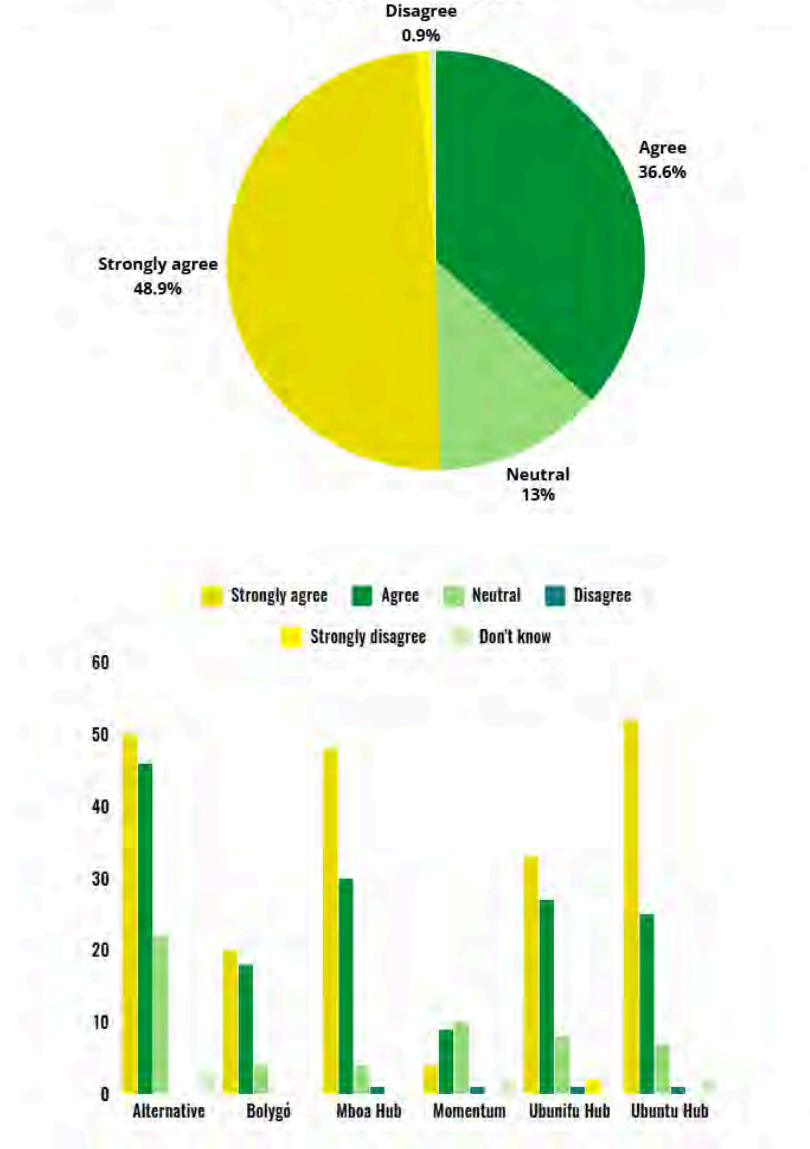
Participant at Alternative, Armenia

INDICATOR 3: Increased understanding among the participants of the underlying causes of the climate crisis and the challenges it leads to

Key findings

- **Increased knowledge:** Most of the participants coming to the makerspaces have increased their understanding of the climate crisis through the makerspace.
- **Increase knowledge regardless of engagement:** Youths who have been engaged in climate and environment issues for a longer period of time have still increased their knowledge through the makerspace.

I have gained more knowledge about the underlying causes of the climate crisis through the makerspace



86%

of youth participants have gained knowledge about the climate crisis through the makerspace.



“

One cannot solve a problem if one doesn't know the reasons behind the problem. Mboa Hub helped me understand the various climatic problems and their causes and possible remedies.

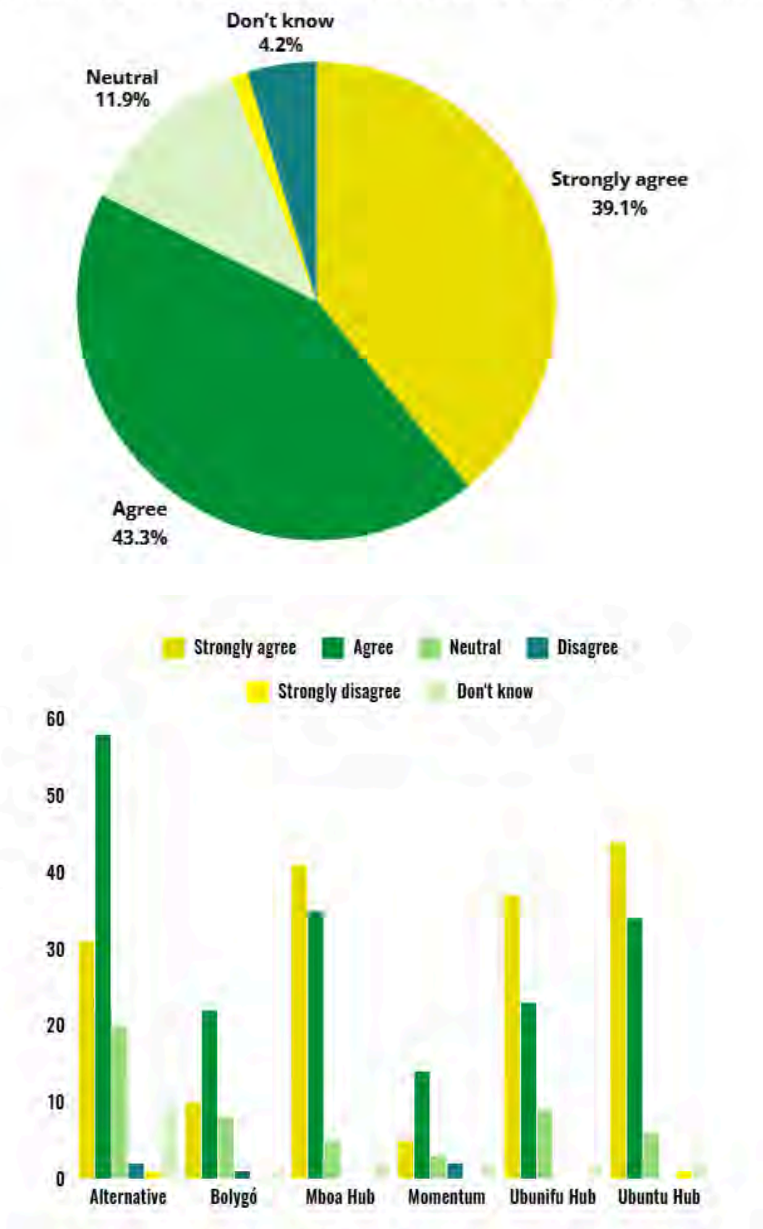
Participant at Mboa Hub, Cameroon

INDICATOR 4: Increased feeling of being able to influence climate issues

Key findings

- **Community influence:** 82% of respondents feel they can influence climate and environmental issues within their local community.
- **Actual community influence:** Participants across the makerspaces influenced climate and environmental issues through a combination of education, action, creativity, and advocacy.
- **Challenges:** The challenges highlighted by the participants were fairly similar overall across the six makerspaces and included lack of knowledge, awareness and engagement, systemic and institutional barriers, community dynamics, financial constraints, personal & mental health challenges, structural issues, as well as mistrust and opposition from their community.
- **Support from the makerspaces:** The participants highlighted that they would like a mix of tangible resources, educational programs, and platforms for creative and collaborative community engagement from the makerspaces to amplify their climate action efforts.
- **Youths' role in 5-10 years:** In the next 5-10 years, the makerspaces will have fostered a generation of empowered, skilled and innovative youth leaders. These individuals will lead efforts from climate justice, they will build sustainable networks and organizations for systemic solutions, and they will act as role models, changemakers and inspirations for others to take action.
- **Skills and experiences gained:** The skills and experiences gained from makerspaces have prepared the youth participants to thrive professionally by leveraging critical thinking, leadership skills, teamwork skills and entrepreneurial knowledge. They have actively engaged in advocacy work and community development. They have also developed confidence, independence and values that can promote an impactful life. The makerspaces have fostered well-rounded individuals who are equipped to drive positive change in both their personal lives and the world around them.
- **Climate engagement without the makerspace:** 52% of the respondents said that they would not have been as engaged in climate and environmental issues without the makerspace, and 11% answered that they would not have been engaged at all.
- **Opportunity to influence local community:** 65% of the respondents would have had less opportunity to influence their local community in climate and environmental issues without the makerspace. Additionally, 14% would not have had any opportunity to influence climate and environmental issues in their local community without the makerspaces.
- **Long-term sustainability of youth engagement:** The youth faces significant challenges, including financial constraints, political instability, limited access to resources, mentorship and infrastructure without the makerspaces. Maintaining youth engagement and motivation post-project, while addressing systemic barriers like inequality, unemployment and shifting power dynamics, is critical to ensuring lasting impact and generational continuity.

I can influence climate and environmental issues within my local community



“

I have organized lots of actions and protests.

Participant at Momentum, Sweden

“

We have started a podcast that looks at teaching all about climate and environmental issues in our townships to even reach a bigger audience, slowly but surely we are getting there.

Participant at Ubuntu Hub, South Africa

Challenges for youth when trying to influence their local community on climate and environmental issues



- Lack of knowledge and awareness
- Lack of interest and engagement
- Systemic and institutional barriers
- Community dynamics
- Financial constraints
- Personal and mental health challenges
- Logistical and structural issues
- Mistrust and opposition

Support and activities youths would like from the makerspaces to better influence climate and environmental issues in the local community



- Training and knowledge development
- Mentorship and skill development
- Funding and resources
- Networking and partnerships
- Awareness and visibility
- Practical and sustainable activities
- Focus on inclusivity and accessibility



Youths in the next 5-10 years

In the next 5-10 years, the makerspaces have fostered a generation of empowered, skilled, and innovative youth leaders. These individuals will:

1. Lead local and global efforts for climate and environmental justice
2. Build sustainable networks and organizations that prioritize systemic solutions
3. Act as role models, mentors, and changemakers, inspiring others to take action
4. Balance environmental advocacy with practical, community-focused entrepreneurship.



Long-term impacts of youth participation at makerspaces

Leadership development

Emerging young leaders

Youths are expected to become leaders in climate and environmental conversations, equipped with strong leadership and advocacy skills.

Role models

They will inspire and mentor other young people, demonstrating the importance of active citizenship and engagement.

Influence in politics & society

Many youths are anticipated to push for climate justice in political spheres and influence decision-makers through lobbying and advocacy.

Enhanced community engagement

Sustainable campaigns

Youths will likely organize long-lasting, impactful campaigns in their local communities.

Active citizenship

A significant number of participants will continue to be engaged in environmental movements, contributing at above-average levels.

Intersectional advocacy

A deeper understanding of intersectionality will enable them to connect climate issues to broader societal challenges, fostering inclusive solutions.

Stronger networks & collaboration

Sustainable networks

Networks established through the makerspaces will continue to grow, fostering connections between local and global youth.

Collaboration across borders

Increased opportunities for global partnerships will lead to more cohesive and impactful environmental efforts.

Knowledge-sharing

Makerspaces will remain platforms for sharing local perspectives on global issues, strengthening the global climate movement.

Organizational & entrepreneurial growth

Sustainable organizations

Youths are expected to establish and lead organizations focused on climate and environmental issues.

Green entrepreneurs

Many participants will become innovators in green entrepreneurship, focusing on sustainable agriculture, waste management, and circular economy initiatives.

Local economic impact

They will address environmental challenges while creating livelihood opportunities, such as integrating food security with sustainable practices.

Broader societal impact

Shift in perspectives

The makerspaces have lowered the barriers to action, empowering individuals to engage from a grassroots level and challenge systemic oppression and inaction.

Cultural change

A growing movement of changemakers will emerge, pushing societal norms toward sustainability and climate justice.

Intersectionality awareness

A broader understanding of the interconnectedness of social, environmental and economic issues will lead to more holistic approaches to problem-solving.

Risk & challenges

Sustainability of engagement

Some youths may disengage due to feelings of hopelessness stemming from global inaction or a shrinking democratic space.

Burnout & fatigue

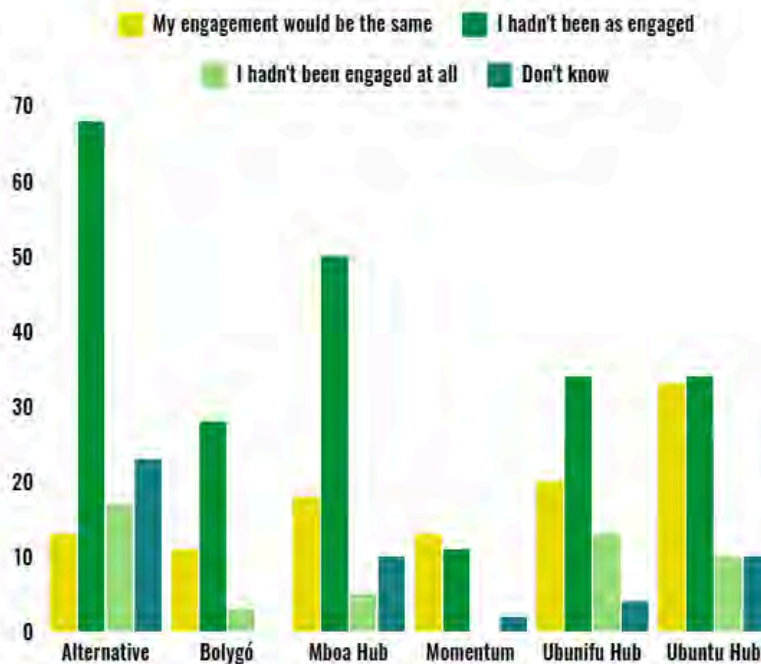
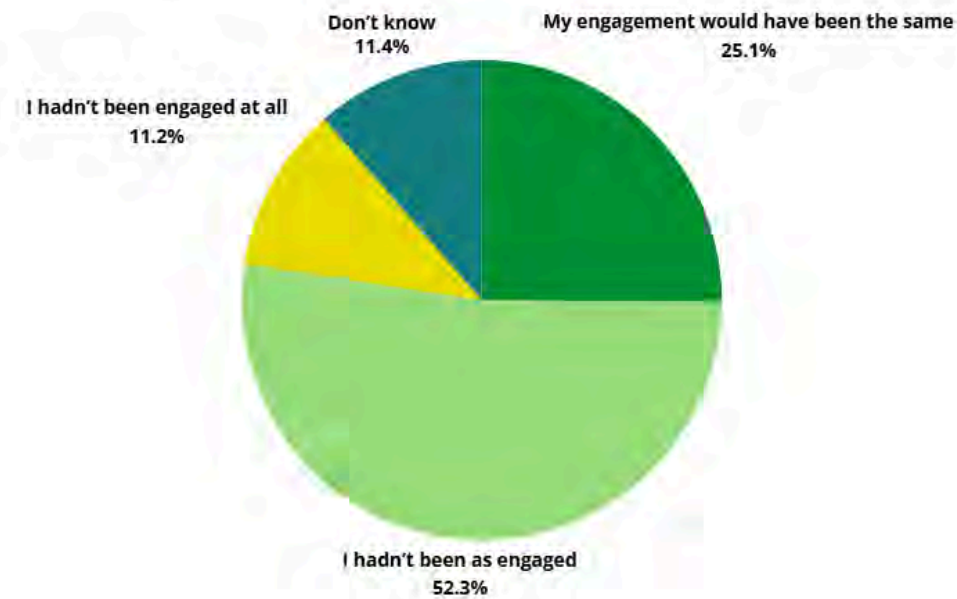
The intensity of activism may lead to fatigue, particularly if youths feel their efforts lack significant impact.

Political resistance

Youths may face barriers in advocating for systemic change due to entrenched political systems or resistance from current leadership.



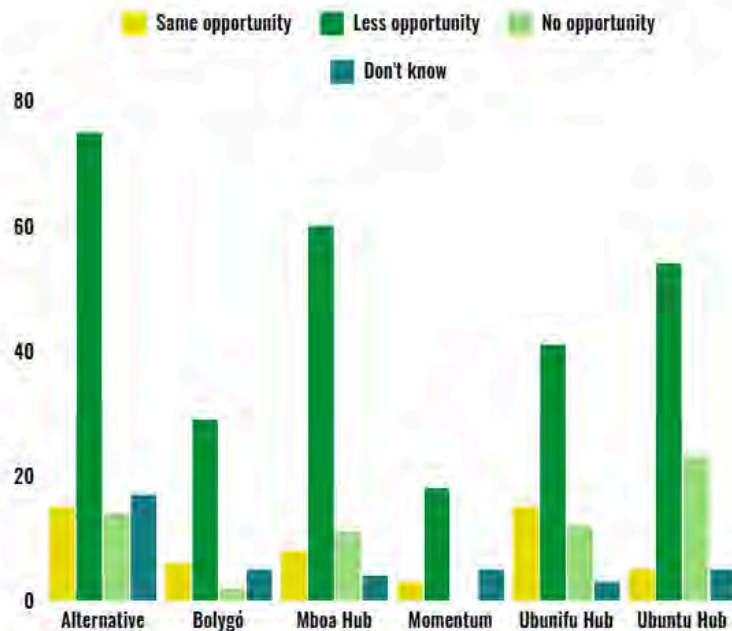
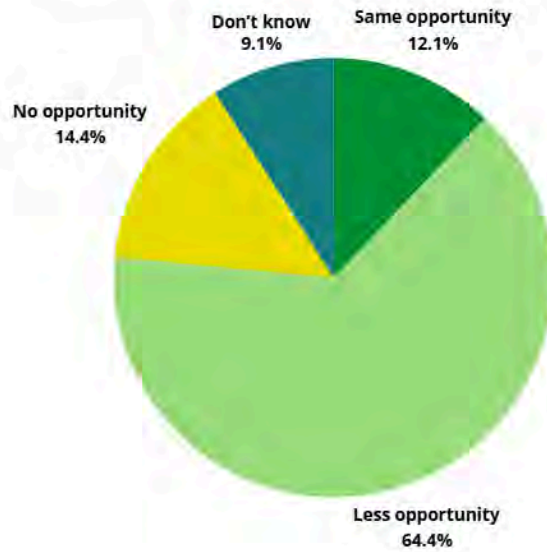
How do you think your climate and environmental engagement would have looked if you had not been a participant at the makerspace?



52%

of youth participants would not have been as engaged without the makerspace.

Do you think you would have had the same opportunity to influence climate and environmental issues in your local community without the makerspace?



“

The makerspace increased my opportunity to influence by providing resources and a collaborative environment, empowering me to create impactful projects for sustainability.

Participant at Alternative, Armenia

INDICATOR 5: Number of actual changes locally and globally as a direct effect of youth engagement at the makerspaces

Key findings

- **Engagement outside the makerspaces:** All of the makerspaces have collectively played a pivotal role in equipping youth with the skills and motivation to address climate and environmental issues outside of the makerspaces.
- **Increased opportunity to influence:** The makerspaces significantly increased participants' opportunities to influence by enhancing their knowledge and understanding of environmental and community issues through training and exposure to sustainability concepts.
- **Youth empowerment:**
 - Participants reported growth in leadership skills, teamwork and proactiveness, which empowered them to initiate impactful sustainability projects and take part in others' initiatives.
 - Access to resources and expertise further enabled them to implement ideas effectively and engage others in environmental activities.
- **Changes in behavior, awareness & engagement:** The makerspaces have had a profound impact on youth's behavior, awareness and engagement. By providing resources, platforms and opportunities, they have empowered youth to take proactive and confident action on environmental issues.
- **Main contributions of the makerspaces:** All of the makerspaces have in their unique ways contributed to youth's ability to make actual change in climate and environmental issues.
 - At **Alternative** the main contributions have been education and increased knowledge about climate and environmental topics.
 - The main contributions of **Bolygó** have been the accessibility to a free and safe space where they can come together.
 - At **Mboa Hub** they have empowered youths through capacity-building workshops and practical initiatives, like solar panel installations and urban farming.
 - The free and safe space where youths can meet physically provided at **Momentum** has been of great importance.
 - **Ubunifu Hub's** main contribution has been their learning series that has educated, engaged and empowered the youths.
 - At **Ubuntu Hub** the most important contributions have been to boost youths' personal development and belief in themselves.
- **Main challenges:** The main challenges for youth engagement across the makerspaces include political instability, lack of climate education, societal polarization and economic hardships.
- To address the main challenges, the makerspaces have focused on capacity-building workshops, integrating climate justice with other social issues, fostering confidence, as well as promoting income-generating environmental initiatives, while adapting advocacy methods to their unique political and social contexts.

Examples of actual changes created by youth

The makerspaces have significantly influenced participants by providing them with tools, platforms and opportunities to lead impactful climate and environmental initiatives.

Empowerment in activism

Petitions

Participants led impactful actions such as raising petitions to ministries and stopping mining projects through collaborative campaigns.

Workshops

Youth organized workshops on plastic education and raised awareness about environmental issues in their communities.

Creative advocacy

Media

Produced creative outputs like podcasts, paintings, comics and board games to address climate and environmental issues.

Art work

Artworks, like Denzel Juma's paintings, gained international recognition and were showcased at conferences, including the UN's civil society events.

Practical solutions

Renewable energy

Installed renewable energy systems, such as solar panels, and created urban farms using innovative techniques like ring gardens.

Entrepreneurship

Wisemen CBO turned former street kids into climate-conscious entrepreneurs through ventures like urban farming, car wash businesses, and pig farming.

Community networking

Sincerely Nairobi

Nairobi Youth Congress launched the "Sincerely Nairobi" podcast

Ubunifu Eco-train Movement

Youths at Ubunifu Hub formed movements like *Ubunifu Eco-train Movement*.

Tuvuli Group

Tuvuli Group trained cohorts in content creation to highlight environmental issues, with plans for ongoing expansions.

ORGANIZATIONAL LEARNINGS: Project set-up & Makerspace operations

Key findings

- **Autonomy & flexibility:** Makerspaces successfully adapted activities to local needs, ensuring relevance, effectiveness, and impact.
- **Collaborative design:** The clear structure involving the Steering Committee, Global team and Core team provided essential guidance and support.
- **Youth engagement:** Youth leadership roles, internships and exchanges enriched inclusivity, fostering autonomy and meaningful participation.
- **Resources & tools:** Platforms like Notion enabled transparency, improved guidelines and efficient implementation of activities.
- **Delayed clarity & implementation:** Late definitions of objectives and project delays hindered progress and capacity-building efforts in some makerspaces.
- **Staffing & workload:** Underestimated staffing needs led to overwork and burnout; expanding Youth leader roles and hiring assistants improved workload balance.
- **Sustainability concerns:** The limited project duration raised concerns about long-term sustainability, highlighting the need for continued support and resource access.
- **Communication & coordination:** Limited collaboration, uneven trainer support and coordination gaps between makerspaces hindered collective progress.
- **Resource & infrastructure challenges:** Insufficient funding, delayed support, and lack of outdoor or innovative spaces restricted some activities.
- **Adaptability & collaboration:** Experimentation and flexibility allowed tailored local approaches, while partnerships and shared learning enhanced operational success.

Project set-up

Positive feedback regarding the project set-up

Autonomy & flexibility: The project structure allowed makerspaces to adapt activities to local needs, fostering relevance and effectiveness.

Collaborative design: The project structure with the Steering committee, Global team and Core team was praised for clarity and support.

Youth engagement: The freedom to involve youth in project leadership (such as the steering committees) and Youth exchanges enriched the program's inclusivity and impact.

Resources & tools: Notion as a management tool facilitated transparency and access to guidelines, supporting effective implementation.

Freedom to adapt: The funder's allowance for course correction mid-project was considered key to its success.

Global learning opportunities: Youth exchanges and shared learning between the makerspaces strengthened the collective mission.



Challenges & suggestions for improvement regarding the project set-up

Delayed clarity: Lack of clear initial definitions for initiatives and project goals caused confusion and delayed progress.

Diverse realities & needs: Different realities across countries required more contextualized planning and flexibility in applying strategies. Would have been helpful if the target group age had been anchored with the African makerspaces and increased since their definition of “youth” are people up to age 35 years old and not only up to 25 years old.

Late implementation: Late starts for some makerspaces affected capacity-building efforts and long-term impact potential.



Communication & coordination: Limited communication between makerspaces, uneven support for trainers, and lack of local/global coordination were highlighted as challenges.

Limited local monitoring and evaluation (M&E): Absence of a dedicated local M&E strategy hindered consistent tracking of progress and outcomes.

Economic & structural challenges: High unemployment, lack of financial literacy among grant recipients as well as insufficient contextualization for youth age groups impacted engagement.

Overburdened Youth leaders: Need for better terms and additional support for Youth leaders due to workload intensity.

Political & logistical barriers: Political climates and resource constraints created obstacles to global coordination and local implementation.

Makerspace operations

Youth engagement & participation

- Regularly seeking input from youths on event types and activities fosters greater relevance and engagement.
- Involving youths in planning, mobilizing and leading their own activities builds autonomy and responsibility.
- Introducing internships and expanded responsibilities for Youth leaders proved successful in encouraging leadership and engagement.

Staffing & capacity

- Staffing needs, including for Youth leaders and trainers, were underestimated, leading to overwork and burnout in some cases.
- Expanding roles for Youth leaders and hiring additional assistants helped balance workloads and increase effectiveness at some makerspaces.
- Clear role definitions and division of tasks improved team efficiency and minimized overtime in some hubs.

Sustainability & long-term impact

- The limited duration of the project risks discouraging participants who rely on the makerspace for resources and support.
- Ensuring long-term sustainability of the space and initiatives is crucial for maintaining impact across generations.

Resources & infrastructure

- Lack of outdoor and green environments at some makerspaces limited the types of activities that could be offered.
- Insufficient funding or delayed financial support led to canceled events and other challenges.
- Spaces with innovative set-ups and accessible locations significantly improved user experience.

Flexibility & adaptation

- Experimentation and flexibility in operations enabled the makerspaces to tailor activities to local needs and discover effective approaches.
- Shifting priorities based on evolving youth needs allowed for growth and reduced reliance on staff.

Resources & infrastructure

- Partnerships with organizations like Greenpeace provided valuable support in finance, IT and communication.
- Shared learning and synergies between makerspaces and sectors (e.g., Hungarian community service programs) enhanced operational effectiveness.

PART 2: Quantitative results

Quantitative objectives

1. *Minimum of 1000 physical participants in various events, per year and makerspace. Total of **21,000 physical participants**.*
2. *Minimum of **6,000 initiatives** started by youths.*
3. *Minimum of **1,000,000 digital views** of the digital material produced in the project.*
4. *Minimum of **350 digital meetings** via our makerspaces*
5. ***60 meetings with decision-makers.***

Methods

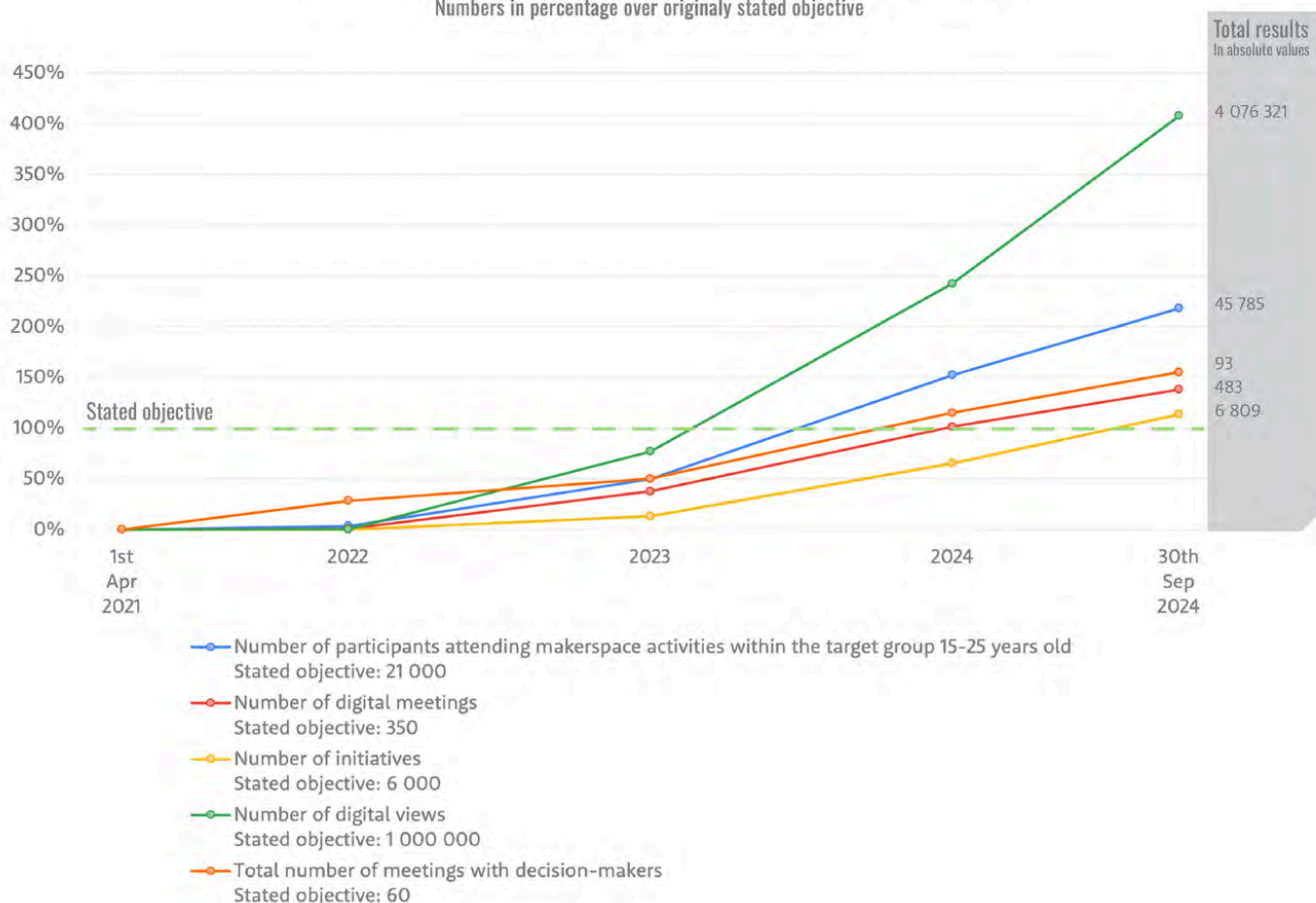
Quarterly reporting

To ensure the continuous monitoring and results of quantitative objectives, the Global team and the makerspaces reported their progress numerically on a quarterly basis. These progress reports played a critical role in maintaining transparency and accountability throughout the project. The Global team and each makerspace were responsible for compiling and submitting their progress reports every quarter. These reports included two sections: A) Quantitative data report and B) Narrative report.

Main findings

- **All** of the quantitative objectives were achieved, and most of them even exceeded.
- **45,785 participants** aged 15-25 were engaged in a total of **3,985** activities at the makerspaces and online.
- **6,809 initiatives** were initiated by youths.
- In our social media channels we had **4,076,321 digital views**.
- **483 digital meetings** were organized across the makerspaces and globally.
- **93 meetings with decision-makers** were organized by the makerspaces.

Objectives reached by the Planet One project from Q2 2021 to October 2024
Numbers in percentage over originally stated objective



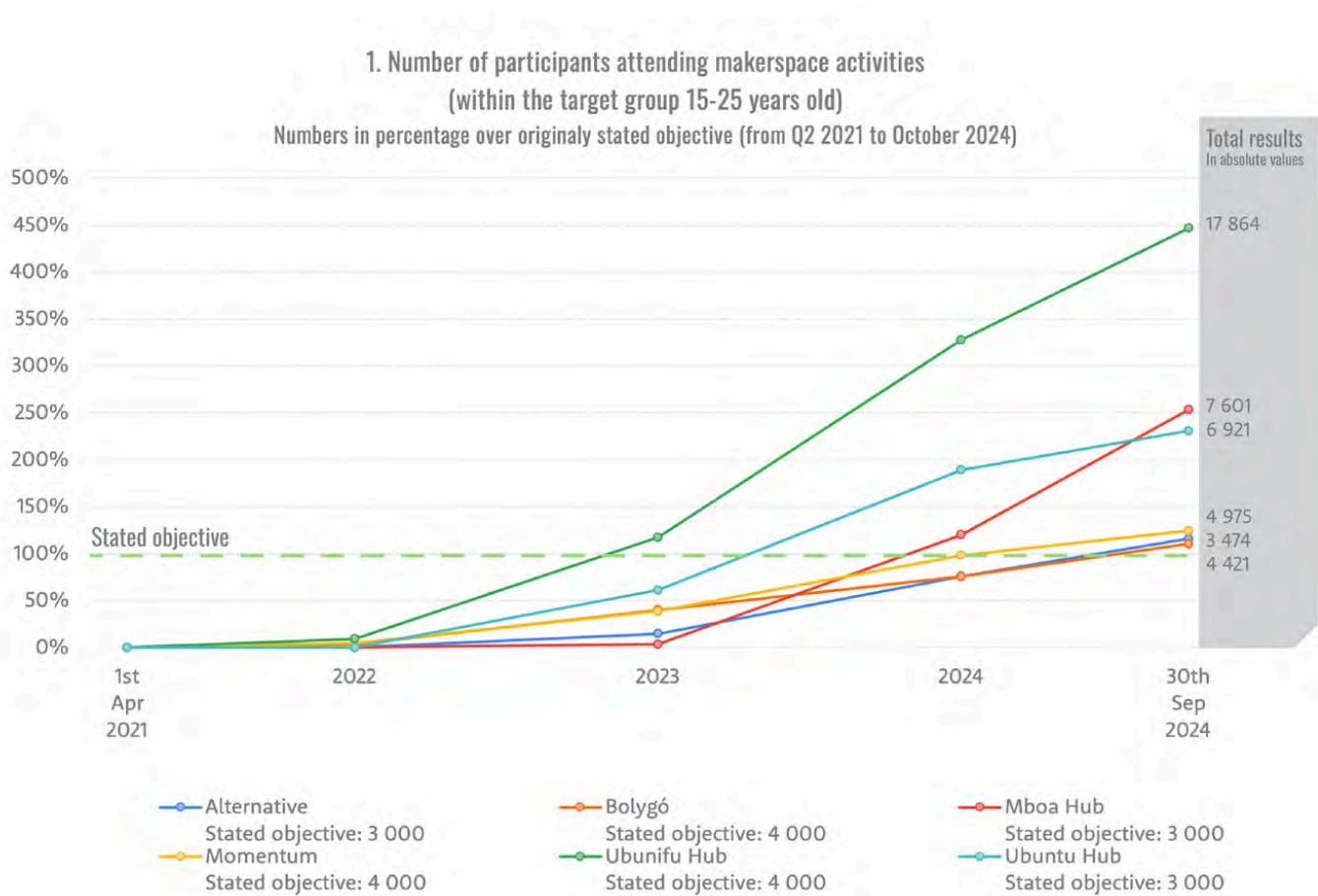
21,000 participants

Throughout the project, a total of **45,785 participants** aged 15-25 were engaged in a total of **3,985 activities**, exceeding the objective of 21,000 youth participants. These were not unique participants, because that would have been impossible to monitor, but both new and returning participants. The project also engaged 7,147 participants outside the target group, i.e. participants younger than 15 years old and older than 25 years old (these are not included in the graph).

45,785

youths have engaged in activities at the makerspaces.

In the graph below you will find the results per makerspace compared to their individual objective.



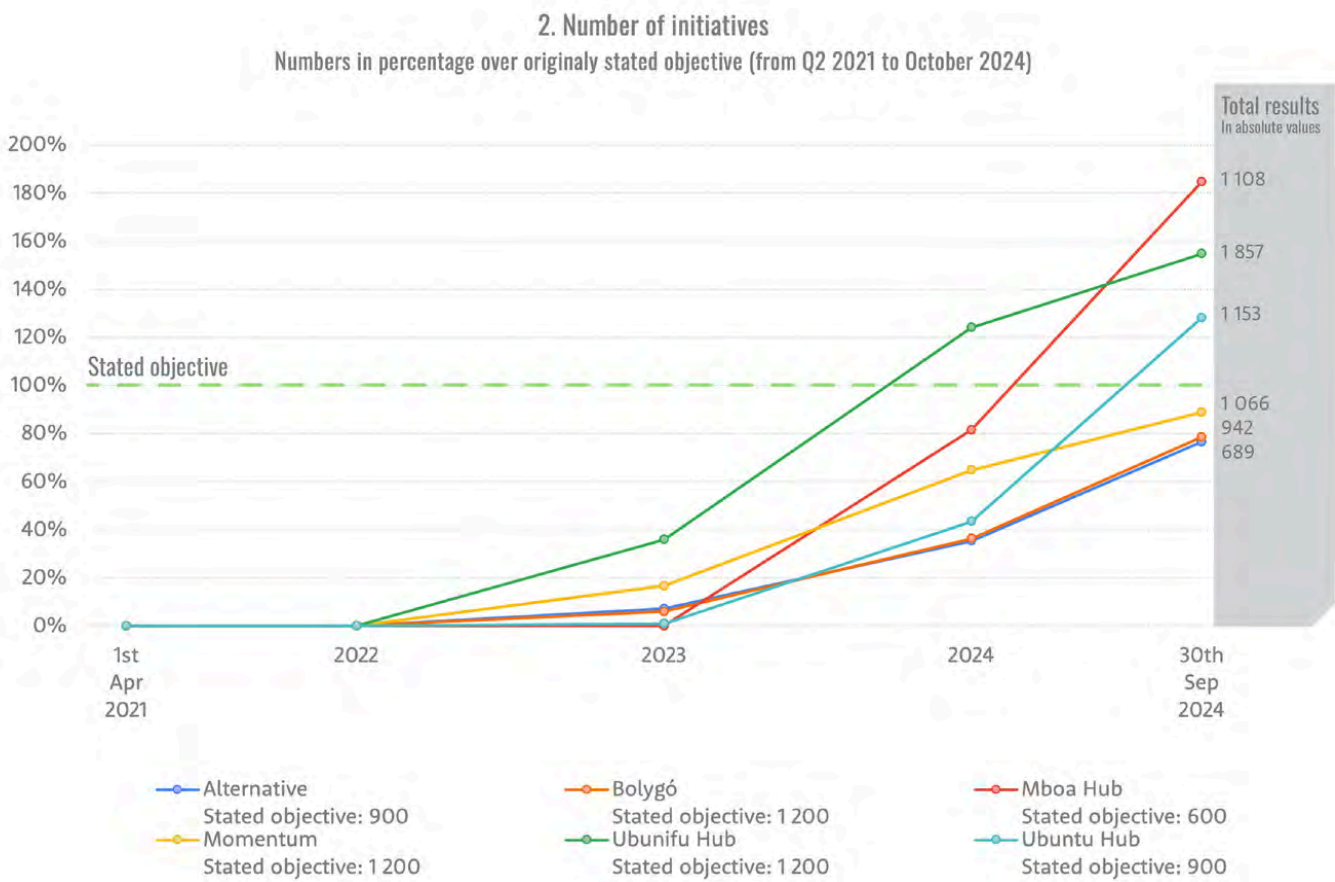
6,000 youth-led initiatives

At the heart of this project was the offer to youths to develop and run their own initiatives. These initiatives could be both big and long-term projects, such as building a community garden, as well as smaller and one-time events, such as a banner making workshop. The focus had to be on climate and environment and the initiatives had to fulfil the set initiative criteria. In the youth-led initiatives program we also offered the possibility for youths to apply for initiative funding from a certain Youth project fund to finance their initiatives. In total, **6,809 youth-led initiatives** were launched, exceeding the objective of 6,000.

6,809

initiatives have been initiated and led by youth.

In the graph below you will find the results per makerspace compared to their individual objective.



1,000,000 digital views

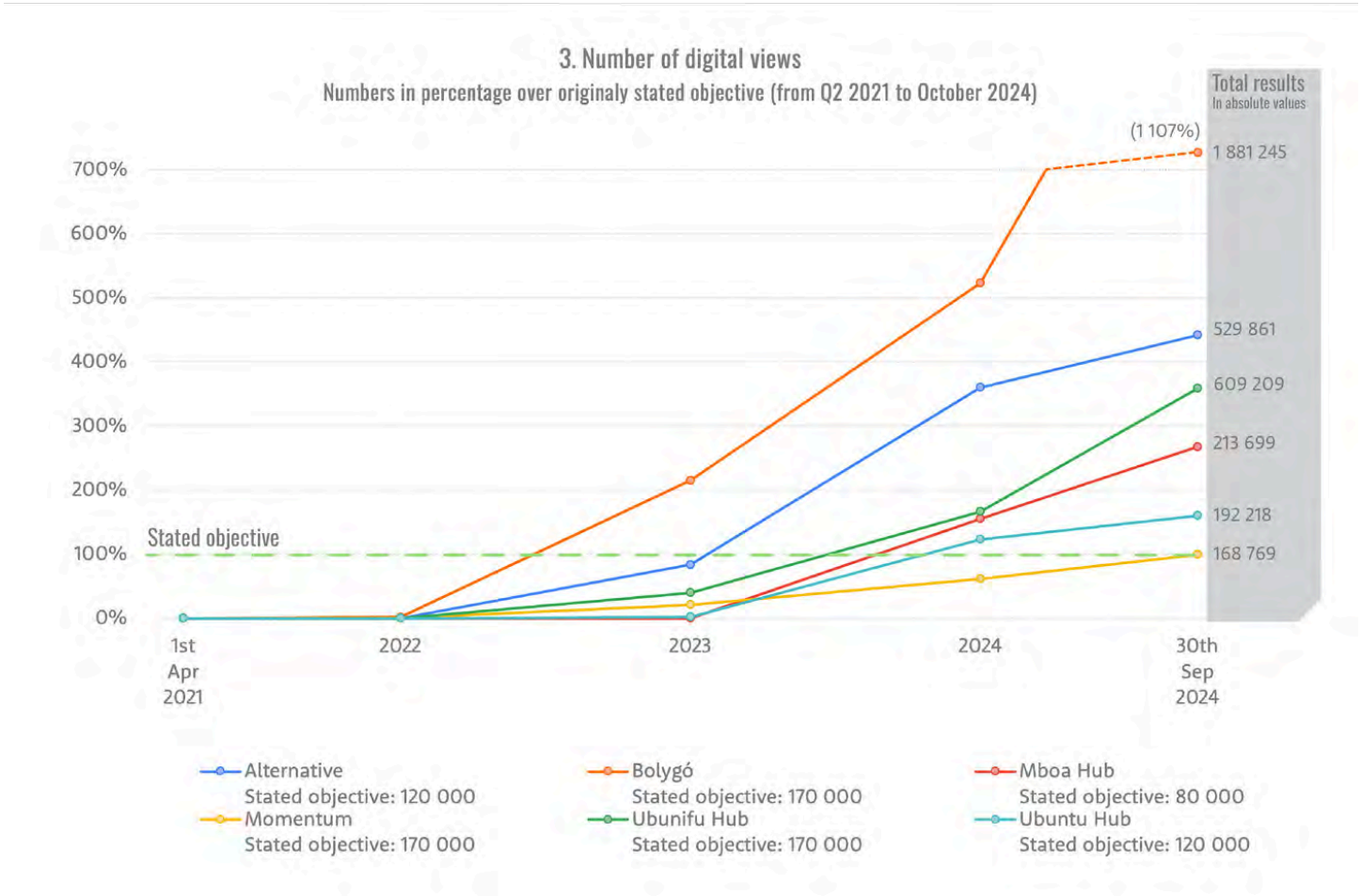
The project had global Facebook and Instagram accounts, and all of the makerspaces had Facebook and Instagram accounts as well and some of them also had LinkedIn, Pinterest, TikTok, and X. There was also a [Planet One website](#) however the number of views for the website is not included under this objective.

In total, the project achieved a bit over **4 million digital views**, 408% of the original objective of 1 million. Our social media channels also had **23,399 followers** combined at the end of the project.

4,076,321

digital views on our social media channels.

In the graph below you will find the results per makerspace compared to their individual objective.



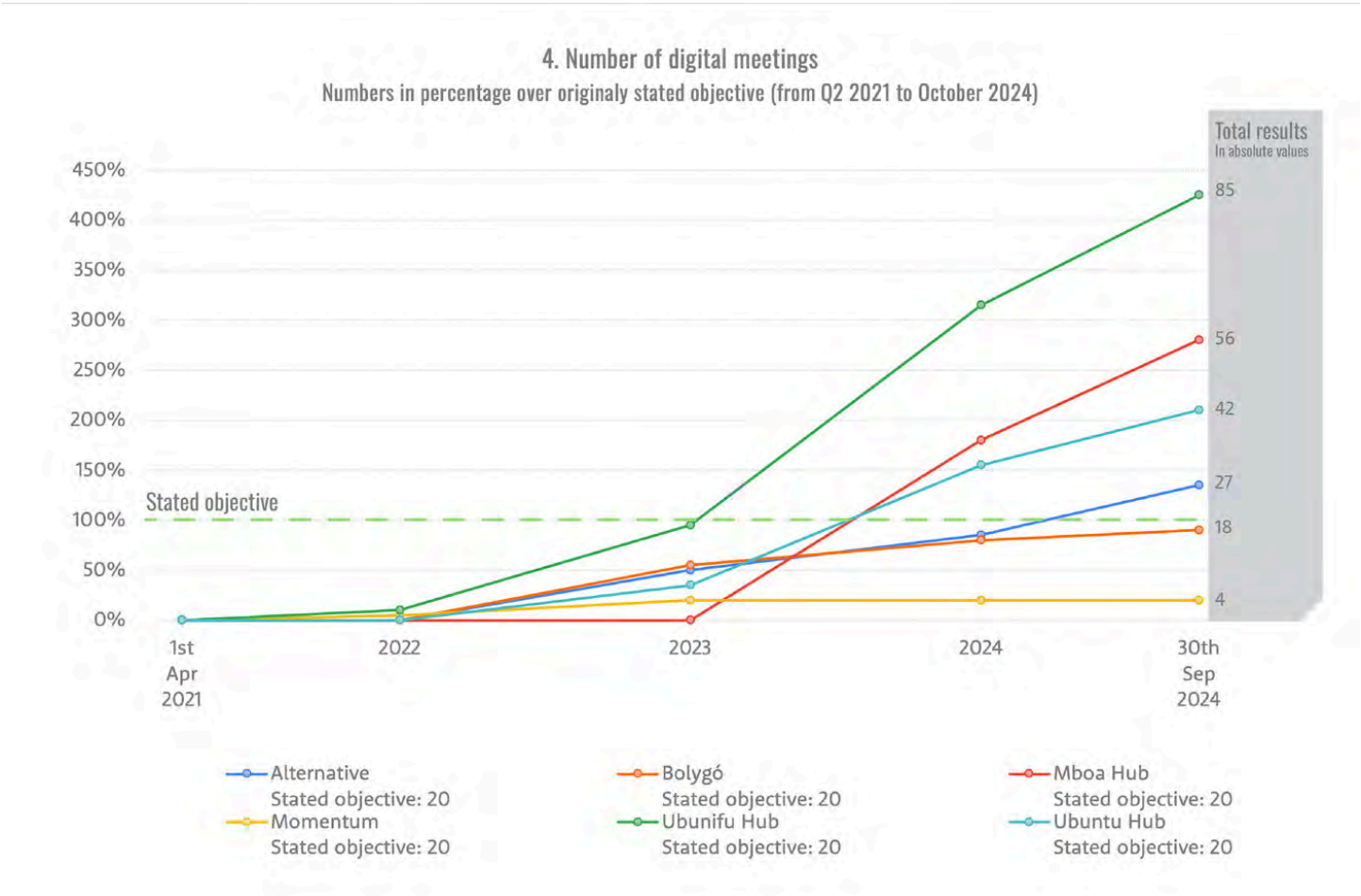
350 digital meetings

Since the project was global almost all of the global decision-making processes, support functions, exchanges of ideas and knowledge took place online. We had different kinds of digital meetings, such as Core team meetings, Youth forums, Local-to-local meetings, and more. If a youth within our target group participated in any of the digital meetings, that meeting was monitored against this objective. In total, **483** digital meetings were held, surpassing the original objective of 350.

483

digital meetings with youth were organized.

In the graph below you will find the results per makerspace compared to their individual objective.



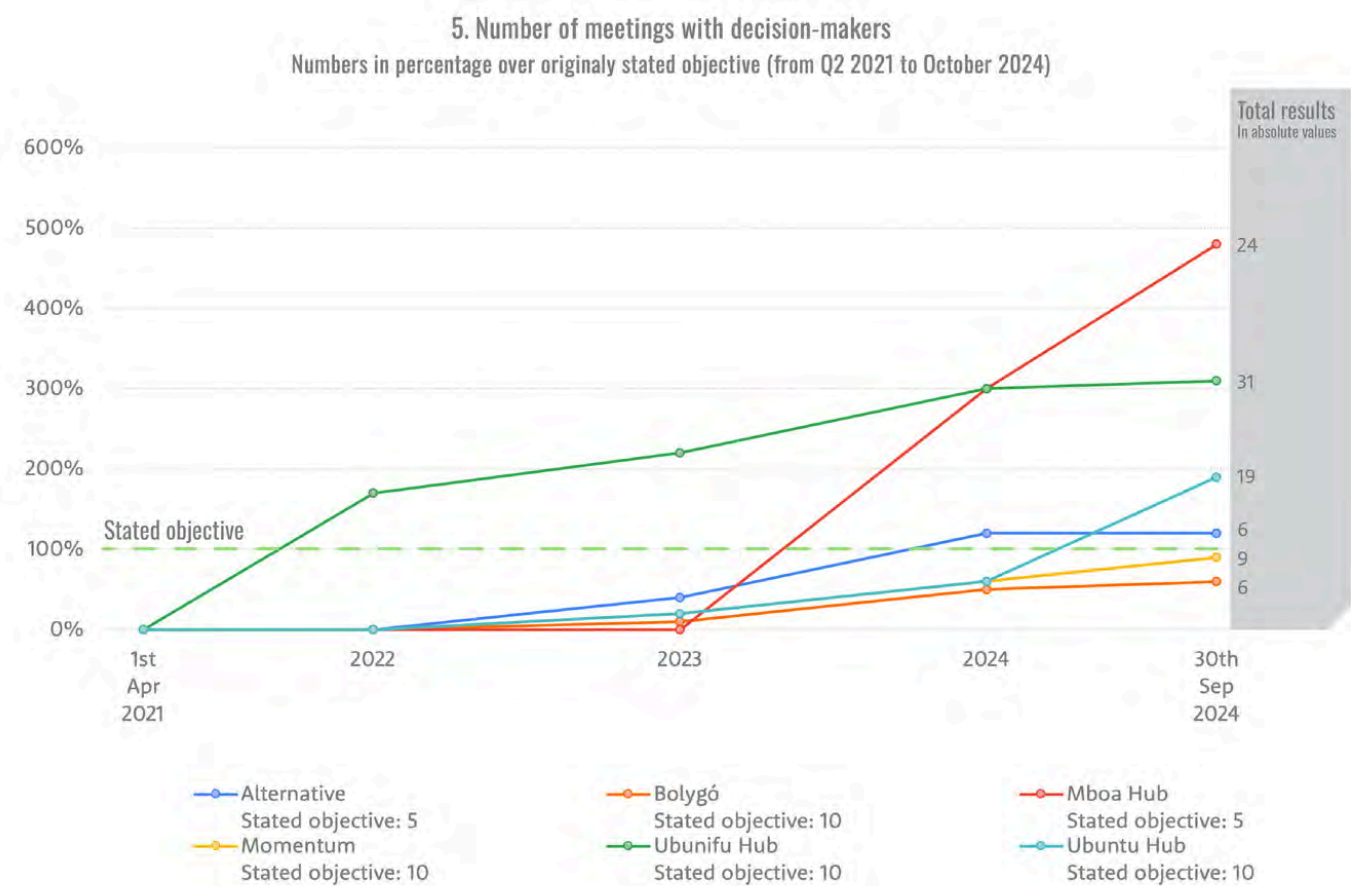
60 meetings with decision-makers

As a part of our advocacy work and to make youths' voices heard, we set up an internal objective that we called Meetings with decision-makers. These were different types of meetings between youths and people in power, for example panel discussions with local authorities. In total, **93 meetings with decision-makers** were organized at the makerspaces, surpassing the objective of 60.

93

meetings with decision-makers were organized at the makerspaces.

In the graph below you will find the results per makerspace compared to their individual objective.



Epilogue

The Planet One project was a global project supporting the growing youth movement for climate justice. The six makerspaces provided a foundation for youth to develop their own initiatives, gain practical skills and build a strong network of support, empowering them to become changemakers.

We are very thankful for all the youths, staff, collaborating organizations and the funder **Swedish Postcode Lottery** for making this innovative project a reality!



Planet One, with its countless inspiring stories—some of which are featured in this book—stands as a powerful testament to the resilience, creativity, and leadership of youth worldwide. They embody the potential that emerges when we empower youth to tackle the climate and environmental crisis head-on through activism, entrepreneurship, culture, and collaboration.

What has inspired me most throughout this journey is the incredible talent and brilliance of the youth employed in this project. They are some of the most exceptional individuals I've worked with—bright, skilled, and deeply committed.

They are the reason I have genuine hope for a better, more sustainable future.

Yannick Porter, Planet One Project manager

Learning-by-doing has been the main methodology in the Planet One project, and this has really been embodied in everything that we have done - in various different ways. My role as the Learning manager was to create a learning and development strategy that was collaborative, inclusive, relevant and possible to implement into six very different contexts - a pretty difficult task.

We concluded that our focus should be interactive sharing of knowledge and skills since we wanted the staff and the youth participants to learn while doing and also learn from each other across the countries. This turned out to be a very good focus. Personally, I never could have imagined that I would learn all the things that I have learned throughout the project.

I am so utterly impressed by everyone's knowledge and engagement, especially the youth's and youth leaders', and for their willingness to share their skills with me and each other. Starting up this project from scratch was a challenge on many levels, but by working together, learning by doing, trial and error, we succeeded to create a very impactful project. This way of working with focus on interactive, informal learning has been really inspiring for me and something that I will take with me in my future endeavors.

Thank you so much to everyone that made this project the success that it is.

Julia Hedberg, Planet One Learning manager