

MozAzul Inovação

Final Report



PROBLUE



República de Moçambique
Ministério do Mar, Águas Interiores e Pesca



GRUPO BANCO MUNDIAL

Acknowledgements

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Acronyms

ALMA	Associação de Limpeza e Meio-Ambiente
AMOR	Mozambican Recycling Association
APETUR	Hotels and Tourism Entrepreneurs Association from Ilha de Moçambique
DINAB	National Directorate of Environment
FB	Facebook
GoM	Government of Mozambique
IG	Instagram
IIP	National Fisheries Research Institute
MIMAIP	Ministry of Sea, Inland Waters and Fisheries
MTA	Ministry of Land and Environment
SEJE	Secretary of State of Youth and Employment
WB	World Bank
YB	Youtube

Abbreviations

MozAzul: Mozambique Problue Program

Plano Nacional: National Plan to Combat Marine Litter

ProAzul: Blue Economy Development Fund

Executive Summary



This report highlights the innovation component of Mozambique Problue Program (MozAzul) Pillar 2, focused on **promoting an enabling environment for innovation on the challenge of marine litter and pollution in Mozambique.**

A **Plastics Social Innovation Process**, with a **series of interconnected activities** (masterclasses, workshops, innovation challenges, eco-tasks and a digital platform) were designed and tested to create opportunities for solutions for a circular economy transition, driven by local stakeholders whilst raising awareness on the problem.

From February 2020 to September 2021, despite the COVID-19 pandemic, MozAzul Inovação delivered its activities, even if mostly online: 6 Masterclasses (online), 3 Workshops (2 in-person, 1 online), 2 Innovation Challenges (online), and the launch of the MozAzul Inovação Digital Platform. The team maintained an agile and interactive approach, continuously engaging stakeholders and responding to their feedback to ensure long-lasting outcomes.

Executive Summary (cont.)



Results included:

- **Stronger positioning of government counterparts and national and international partners** through the MozAzul Inovação brand and activities.
 - Masterclasses ~ 300-600 person-average audience (2,454 reached)
 - Workshops ~ 15-30 participants
 - Platform ~ 300 visits in one month
 - Challenges ~ 30-55 participants (450 leads, 22,000 reached)
- **A pioneering approach to connecting stakeholders**, in less formal and structured environments, enabling public, dynamic and multidisciplinary “spaces” (offline and online) for stakeholders to form connections and synergies beyond the program. It led other initiatives to replicate these “spaces” as well;
- **Enriched Mozambican communities of practice**, shifting discourse from a global perspective to a more contextual one, where emphasis needs to be given to economic opportunities and impact, rather than solely environmental concerns.

The background features a school of fish, likely striped bass, swimming in a blue-tinted environment. The fish are densely packed, with many showing distinct dark vertical stripes on their lighter bodies. The scene is overlaid with a semi-transparent blue filter. On the left side, a large, white, stylized number '1' is prominently displayed. The word 'Background' is written in a bold, white, sans-serif font in the upper right quadrant. The overall aesthetic is clean and modern, typical of a presentation or video title screen.

Background

1

Mozambican Context



With 2,470 km of coastline, exceptionally rich biodiversity, and over 60% of its population living on the coast, **promoting a sustainable blue economy in Mozambique is vital.**

The fisheries sector makes a substantial direct and indirect contribution to people's livelihoods and economic prosperity in the country:

- Fisheries account for about 2% of the country's GDP
- More than 400,000 people are directly engaged

There is also high tourism potential, but very limited development, further constrained by the global pandemic.

Marine pollution, originating largely from mismanaged plastic waste in Mozambique and surrounding countries, is a growing threat to marine life, fisheries, tourism and marine transport in the Southwest Indian Ocean.

GoM Priorities & MozAzul



The Government of Mozambique (GoM), through the Ministry of Sea, Inland Waters and Fisheries (MIMAIP) has made a commitment to combat marine waste and develop a broader approach to a more sustainable blue economy. However, gaps in quality data, investments and policy regulations, capacity in blue economy, an enabling ecosystem for innovation and entrepreneurship and public awareness are still prevalent.

The Mozambique ProBlue Program (aka MozAzul Program), implemented by the World Bank in collaboration with the GoM, **tackled 3 ProBlue pillars:**

1. Fisheries and Aquaculture Management
2. Marine Litter and Pollution Reduction and Management
3. Integrated Seascape Management and Blue Economy Development

MozAzul Pillar 2



MozAzul Pillar 2 sought to address key gaps in knowledge and data about plastic pollution and to promote an enabling environment for innovation around marine litter in Mozambique, while enhancing citizen engagement on the issue.

From **February 2020 to September 2021**, MozAzul Pillar 2 covered the following activities:

1) Strengthening the analytical base on marine litter in Mozambique

- National marine litter analysis
- Circular economy transition opportunities

2) Promoting an enabling environment for innovation around marine litter in Mozambique

- MozAzul Inovação: Plastics Social Innovation Program (masterclasses, workshops, eco-biscates, digital platform)

Institutional Collaboration



Pillar 2 is coordinated and implemented in close collaboration with:

- Ministry of Sea, Inland Waters and Fisheries (MIMAIP)
- National Fisheries Research Institute (IIP)*, and
- Blue Economy Development Fund (ProAzul)



PROAZUL is MozAzul's champion within MIMAIP with overall coordination responsibility, as all pillar results will feed into PROAZUL's institutional action plan and it will take ownership of the legacies of the MozAzul Pillar 2 program, including the studies, the innovation community created and the digital platform. For MozAzul Inovação, the majority of activities were co-designed and implemented in close collaboration with both PROAZUL and IIP teams.

MozAzul Inovação



This report highlights the MozAzul Pillar 2 innovation component - MozAzul Inovação - focused on **promoting an enabling environment for innovation around the challenge of marine litter and pollution in Mozambique**. Innovation is a key anchor of the component and program, as solutions to complex challenges require a strong dose of innovation if different outcomes are truly sought.

A **Plastics Social Innovation Process**, composed of a **series of interconnected activities**, were designed and tested to create opportunities for solutions for a circular economy transition, driven by local stakeholders whilst raising awareness on the problem.

MozAzul Inovação - an overview



Masterclasses	Workshops	Challenges	Meetups	Eco-biscates	Digital platform
<p>Conversations among specialists around relevant topics, to share knowledge (challenges and opportunities), initiatives, and success cases in Mozambique and other relevant contexts.</p>	<p>Workshops on various techniques around litter or plastics re/upcycling, repurposing, reuse, reduction, as well as basic business and innovation skills for entrepreneurs.</p>	<p>Challenges proposed by a range of institutions/ stakeholders for a community of innovators and entrepreneurs to find and develop Solutions for, through a process of innovation.</p>	<p>Meetups for networking, exchange of perspectives and experiences, and creation of synergies between the various key stakeholders working around the plastic and waste value chains.</p>	<p>Temporary, eco-focused tasks ('gigs'), such as beach clean-ups, to create alternative income streams and link the environment to economic opportunities for communities.</p>	<p>A digital platform to crowdsource information, activities, mapping of actors and initiatives around plastic and waste value chains, including marine litter, in Mozambique.</p>

An underwater scene with a blue tint. In the center, a clear plastic bag floats among several striped fish. The background is filled with more fish and some seaweed or coral. The overall mood is somber due to the presence of the plastic waste.

Scoping Mission

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2.1 Scoping Mission



February 17-28th, 2020 | Maputo and Beira

The WB team conducted a 1st scoping mission of the MozAzul pillar 2.

MAIN OBJECTIVES

To launch and kick-off program activities, initiate plastics, waste and value-chain stakeholder mapping, open up synergies for marine litter and circular economy studies, and build interest and potential partnerships for the Plastic Social Innovation Process activities with relevant stakeholders (government, private sector, civil society, academia, development partners, entrepreneurs).

ACTIVITIES

- **BILATERAL INTERVIEWS WITH KEY STAKEHOLDERS**, from plastic manufacturers, recycling businesses, environmental education associations, several government counterparts, etc.
- **SITE VISITS TO MARINE LITTER HOTSPOTS** in urban and peri-urban areas, in Maputo & Beira.
- **SOFT-LAUNCH AT THE FISHERIES MUSEUM** with 38 high-level multi-sectorial stakeholders, to introduce the program and begin to map the value-chains, using a participatory methodology.
- **ARTISANS MEETUP/ WORKSHOP** with 16 artisans at FEIMA* already working with waste or alternatives to understand opportunities, needs/ gaps and promote collaboration/ partnerships.

*Arts, Crafts, Flowers and Gastronomy Fair in Maputo

2.2 Preliminary Findings



February 17-28th, 2020 | Maputo and Beira

Overall, the program was highly welcome and scoping mission objectives were met. A range of preliminary challenges and opportunities were identified, which further **informed the range of programmatic activities planned**, both on the analytical and innovation components. Initial findings comprised of the following:

Challenges	Opportunities
<ul style="list-style-type: none">• The need for, but lack of, recycling capacity in the country, due to the high costs of machinery/ reprocessing infrastructure, storage space for collected materials;• Lack of access to technology, knowledge and data that can support decision-making;• Insufficient proposed practical solutions and collaboration amongst stakeholders, even though there are several national and regional initiatives on marine plastic litter.	<ul style="list-style-type: none">• Several small-scale initiatives and actors promoting circular economy and practices across the country;• Legal frameworks and policy proposals in discussion, such as the Regulation on Extended Producer Responsibility and the Plastic Bag Ban;• Private sector support and interest in processing facilities;• Government and stakeholder commitment to reduce marine litter.

2.3 Soundbites* (i)



Waste Management

- *In most regions in Mozambique, there are **no municipal waste collection services**. Residents dump waste on the ground and on the beach. There are no efficient drainage systems, no waste treatment facilities, and waste ends up in the sea.*
- ***Separation at source is key** for material re-entry into recycling and transformation lines. But citizens do not do it and there are no facilities for this.*

Recycling

- ***Recycling is expensive** and ends up having to be reflected in the cost to the consumer. It is not viable in a low-purchasing power context.*
- ***We are still very dependent on South Africa** and this disrupts plastic transformation initiatives in Mozambique.*

Informal Waste Pickers

- *Companies want to work with informal waste pickers, but they need to justify the payments for the waste and are left with the burden of **paying 20% of taxes, which does not encourage this collaboration**. There is no adequate legal framework yet.*
- ***The motivation for communities to work in this sector is entirely economic**, although there is recognition that recycling provides a social good.*
- *Recyclers favour clean materials and pay collectors slightly higher rates per kilo of clean materials. **Clean materials cost less to reprocess, thus increasing their market value**. This seemingly minor detail can translate into sorting and education campaigns, both for collectors, industries and residents.*
- *In Maputo, **Coca-cola subsidizes the cost of end-of-life PET** that is collected - from 5 to 10 mzn (before COVID-19).*

* The soundbites in this and the following slides are an amalgamation of opinions that stakeholders shared during the scoping mission.

2.3 Soundbites (ii)



Upstream

- *Mozambique does not extract raw materials for plastic production. Therefore, **opting for renewable raw materials or a more sustainable design is not always within our scope.***
- *There are still **many reservations regarding alternative plastics**, such as bio-plastics, and the impacts remain to be seen.*
- *Local alternative products to plastic **are always more expensive and not accessible or appealing** to a majority of the population to ever achieve scale.*

Extended Producer Responsibility Tax

- *There should be a difference between producers and processors, as there are very few producers in Mozambique, hence the **resistance to adopt the extended producer responsibility tax.***
- *There are some **benefits that could potentially be granted to companies** if they comply with these taxes - and not just be reverted to the state.*

Information & Coordination

- *There is **considerable dispersion and lack of coordination** among stakeholders/ programs/ strategies, and **useful information is not being disseminated.***
- *The very few **discussion forums around these thematics do not go “beyond the surface”** on what could be done to overcome challenges and seize opportunities in the country.*

Public Awareness/ Education

- *More young people are involved in clean-up campaigns, but clean ups don't tackle **littering behavior.***
- *Campaigns, tv or radio programs have to be engaging and relevant, otherwise they are cancelled because they do not attract enough audience.*
- *There was always a strong culture of reducing/reusing/repurposing here. **These “circular economy” practices are not new to us.***

2.4 Bilateral Meetings



Plastic Pellets for recycling at Topak



PetCo recycled plastic fabrics at Coca-Cola



Stored nets at Pescamar in Beira



Circular Economy board at Plataforma Makobo



2.5 Soft-launch and collaborative mapping



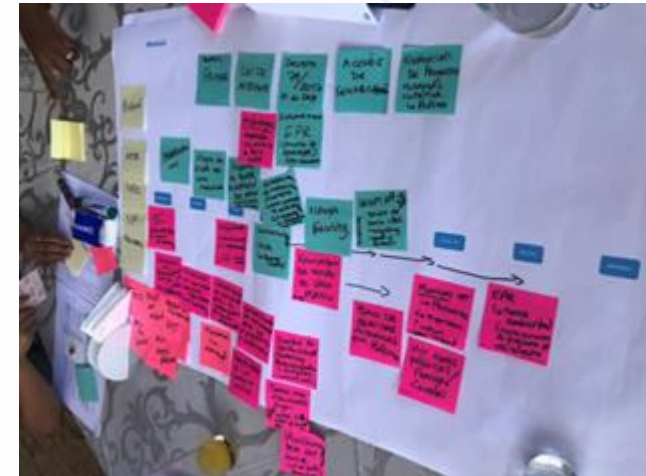
Program presentation at Museu das Pescas



Collaborative value-chain and stakeholder mapping



Value-chain mapping



An underwater scene featuring several striped fish swimming near a yellow net. The background is dark with some greenish-yellow light filtering through. The fish have distinct dark vertical stripes on their bodies. The net is partially draped over the fish, and there are some seaweed-like plants visible in the background.

3

COVID-19 & Work Plan

COVID-19



In March 2020, immediately after the scoping mission, the global pandemic hit Mozambique and, very early on, social distancing restrictions were adopted in the country.

The work plan was rethought to include and focus on online efforts, until possible to re-establish in-person activities...

...which unfortunately never happened due the subsequent COVID-19 peaks in January and July 2021 until the present.

COVID-19



The team also participated in the COVID-19 Hack, a hackathon that brought together various volunteers from all sectors to develop quick solutions for Mozambique during the pandemic. Solutions were promoted along the following clusters: health, local businesses, jobs, and financial inclusion.

Face shields out of plastic waste was one of the solutions pitched, but other more rapid options were given preference. Nonetheless, this initial proposal on face shields led to a larger one that got **\$300,000 funding approved from the Korean Green Fund for the development of a Fabrication Laboratory (FabLab)** that will explore the transformation of plastic waste.

Additionally, under another project with the Secretary of State for Youth and Employment (SEJE), **the WB subcontracted DIKA (“tip” in Portuguese), an application created by young Mozambicans to disseminate information on Sexual and Reproductive Health, to develop and disseminate COVID-related information to youth country-wide.**

3.1 Initial Work Plan & Deliverables



Inception Apr-Jun '20

- **Comms:**
 - . pre-test with partners and audience
 - . close strategy, brand guidelines and partners brief
- **Partners:** engage partners and validate value propositions for each
- **Digital solution:** develop mock-ups, pre-test and gather feedback
- **Events:** close topics, speakers, digital platforms for masterclasses

- Comms strategy & brand guidelines
- Program and Partners' brief
- Digital mock-ups
- Pre-tests
- Masterclasses schedule

Digital Jul-Dec '20

- **Comms:** launch Moz Azul comms (newsletter, social media, PR) and begin digital solution content crowdsourcing
- **Partners:** close partnerships and build content for comms and events
- **Digital solution:** tech development and build content; launch 1st version
- **Events:** launch Masterclasses and Challenges, attempt digital workshops, and begin fair concept development

- Comms launch
- 4 Masterclasses (at least)
- 2 Challenges
- 2 Workshops
- Digital solution (beta-version)
- Fair concept & plan

In-person Jan-Mar '21

- **Comms:** build-up for the fair
- **Digital solution:** platform 2.0 proposal, based on feedback
- **Events:** add physical masterclasses, meetups and workshops
- **Physical Fair**

- Physical events:
 - 2 Masterclasses
 - 4 Meetups
 - 2 Workshops
- Fair
- Digital solution 2.0 proposal

3.2 Actual Deliverables



Mozambique registered its first COVID-19 peak in September/October 2020, with tight restrictions starting months before. MozAzul Inovação launched on July 16th, 2020 - [MozAzul Newsletter 1](#) - and begun its online activities from July 23rd onwards (masterclasses, workshops, innovation challenges, digital solution development).

With two subsequent peaks in 2021, in-person activities were shelved: the 2 additional workshops, the 4 proposed meetups, and the fair.

Nonetheless, the team managed to shift to online efforts effectively, which despite connectivity issues and engagement limitations, **enabled national reach and networking**, which might have not been possible with just in-person activities.

- Comms strategy & brand guidelines
- Partners brief
- Digital mock-ups
- Pre-tests online
- Masterclasses schedule

- Comms launch
- 6 Masterclasses (instead of just 4)
- 2 Challenges (online)
- 3 Workshops (1 online & 2 in-person)
- Digital solution launch & handover

- Physical events:
 - 4 Meetups
 - 1 Workshops
- Fair plan & fair

An underwater scene featuring a school of striped fish swimming near a large, translucent fishing net. The background is dark with some greenish-yellow light filtering through. The overall image has a dark, moody aesthetic with a greenish-yellow tint.

4 Communication s Strategy

4. Communications Strategy



A combined communications strategy and plan was developed for both the National Plan to Combat Marine Litter (Plano Nacional) and MozAzul Inovação, given their common goal of promoting the blue economy in Mozambique. ProAzul integrated actions from this strategy into their institutional communications plans, mainstreaming the issue of plastic pollution.

OBJECTIVES

- 1 **Raise awareness** of marine litter and the plastic problem
- 2 **Promote innovation** around marine litter and plastics
- 3 **Inform** on the Plano Nacional and the MozAzul Program

The following slides describe some key processes in the development of this strategy.

4. Communications Strategy



PRE-TESTING BRAND AND MESSAGES

Although planned in-person pre-testing sessions for brand and messaging were not possible, each team member consulted with different audiences across the country to gather how the logo and messages were understood. ProAzul and IIP also contributed significantly to the evolution of the brand and slogan.



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4. Communications Strategy



BRAND SUSTAINABILITY

Important decisions were made towards **sustainability of MozAzul's Pillar 2 objectives and brand beyond the program component period**, by:

- Aligning MozAzul Inovação with existing government branding: “Mar não é Lixeira” (the Sea is no Dump) was MIMAIP’s existing motif;
- Jointly developing logo options that could be used by all partners, without the MozAzul Inovação label, which could eventually be used as a “stamp” for all blue economy efforts;
- Boosting government partners’ communication efforts, specifically by making use of ProAzul’s social media as the main outreach channel for innovation activities.



General



MozAzul Inovação

The background features a photograph of several striped fish, possibly sea bream, caught in a yellow fishing net. The entire scene is overlaid with a semi-transparent yellow filter. The fish are positioned in various orientations, some facing left and others right. The net's mesh is clearly visible, creating a complex pattern of lines and shadows.

Masterclasses

5

5.1 Masterclasses Online

July 23rd October 1st, -2020 | National & International



Six Masterclasses were conducted. They were designed as informal conversations among specialists around relevant topics, to share knowledge, initiatives, and success cases in Mozambique and other relevant contexts.

OBJECTIVES

- Raise awareness of MozAzul and the National Plan to Combat Marine Litter
- Increase awareness and knowledge on various topics around circular and blue economy, marine litter, and the plastics value-chain in the country.
- Simplify complex concepts through practical examples.
- Promote visibility for experts/ innovators/ initiatives working in this space, increasing access to opportunities and synergies.
- Exchange knowledge and experiences with experts from other countries.

FORMAT

- Live conversation (real-time) with a host/ mediator and 2-3 guests, experts on the topics. Space to also address questions submitted from audience. Held on ProAzul's Facebook - <https://www.facebook.com/ProAzulFP>

Masterclasses Topics and Links:

- [Circular Economy](#)
- [Fishing Nets](#)
- [Plastic, Business and Innovation](#)
- [Life without Plastic](#)
- [Recycling](#)
- [Sustainable Design](#)

Teasers (produced by the team):

- [Circular Economy Teaser](#)
- [Ghost Nets Teaser](#)

Promotion

Lives were promoted on ProAzul's FB and IG, and shared through WhatsApp and E-mail.

5.2 Topics & Speakers



MASTERCLASS
ECONOMIA CIRCULAR

Miguel Pereira
Banco Mundial
Especialista em Economia Circular

Estelita Assis
Instituto Nacional de Investigação Científica
Especialista em Economia Circular

Roy Santos
Plastic Free Portugal
Especialista em Economia Circular

Daniel Menezes
Circular Lab
Especialista em Economia Circular

LIVE no Facebook do ProBlue
Quinta - Feira, 23 de Julho, às 19h00 | <https://www.facebook.com/ProBluePT/>

MASTERCLASS
REDES DE PESCA

Daniel Sousa
ProBlue
Especialista em Economia Circular

Walter Cordeiro
ProBlue
Especialista em Economia Circular

Daniela Coimbra
Partners for the Ocean
Especialista em Economia Circular

Clara Lourenço
Partners for the Ocean
Especialista em Economia Circular

LIVE no Facebook do ProBlue
Quinta - Feira, 04 de Agosto, às 19h00 | <https://www.facebook.com/ProBluePT/>

MASTERCLASS
PLÁSTICO, NEGÓCIO E INOVAÇÃO

Carlos Serra
Comissão de Educação Ambiental Escolar
Especialista em Economia Circular

Daniel Malheiro
Green Pro
Especialista em Economia Circular

Cris Lourenço
Fala de Bem
Especialista em Economia Circular

Elvira Sousa
Waste4Good
Especialista em Economia Circular

LIVE no Facebook do ProBlue
Quinta - Feira, 20 de Agosto, às 19h00 | <https://www.facebook.com/ProBluePT/>

MASTERCLASS
VIDA SEM PLÁSTICO

Rafaela Chaves
Sociedade Civil
Especialista em Economia Circular

Lúcia Magalhães
MozAzul Inovação
Especialista em Economia Circular

Livia Marques
Global Ecological Transition
Especialista em Economia Circular

Julio Oliveira
Especialista em Economia Circular

LIVE no Facebook do ProBlue
Quinta - Feira, 02 de Setembro, às 19h00 | <https://www.facebook.com/ProBluePT/>

MASTERCLASS
RECICLAGEM

Maria Malhadas
ProBlue
Especialista em Economia Circular

Luís Lopes
ProBlue
Especialista em Economia Circular

William Dely
ProBlue
Especialista em Economia Circular

Ana Rita Lyman
ProBlue
Especialista em Economia Circular

LIVE no Facebook do ProBlue
Quinta - Feira, 17 de Setembro, às 19h00 | <https://www.facebook.com/ProBluePT/>

MASTERCLASS
DESIGN SUSTENTÁVEL

Wendy Delle
Wendy Delle
Especialista em Economia Circular

Shirley Adam
Wendy Delle
Especialista em Economia Circular

Carolina Malhadas
ProBlue
Especialista em Economia Circular

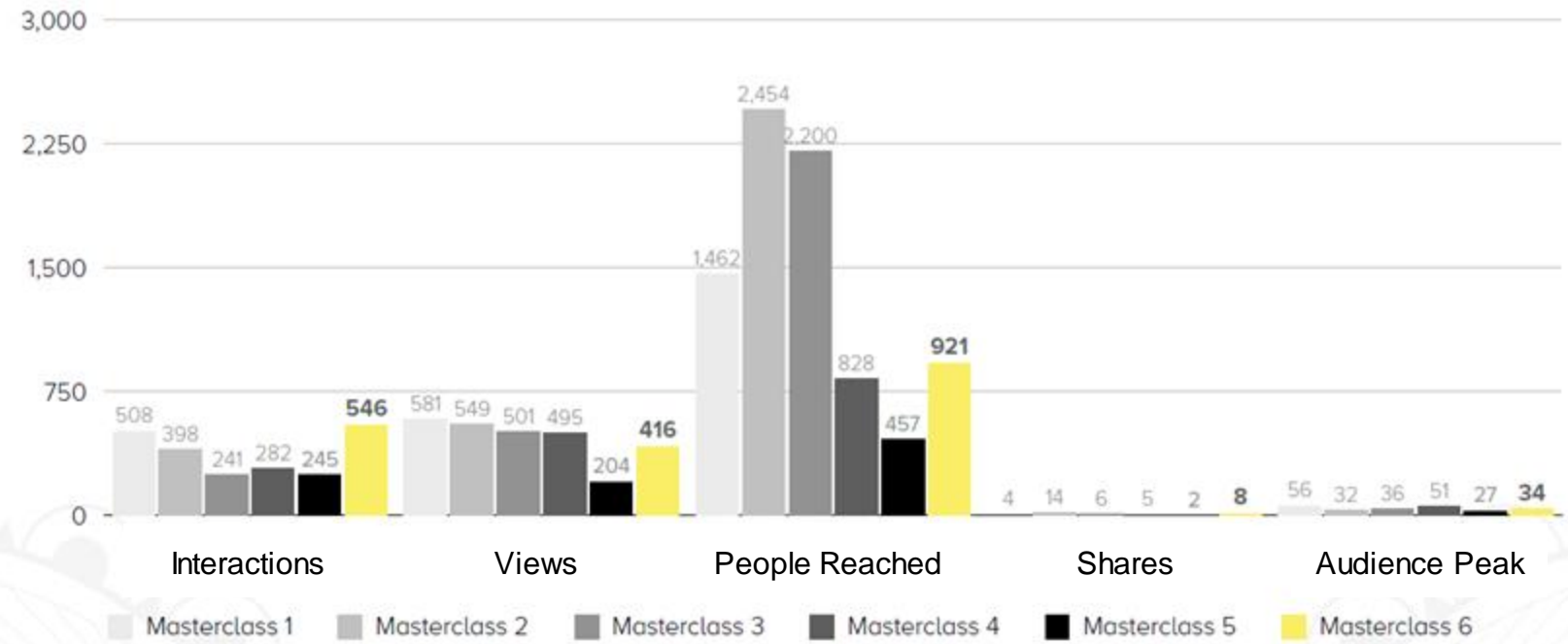
Elvira Sousa
Waste4Good
Especialista em Economia Circular

LIVE no Facebook do ProBlue
Quinta - Feira, 1 de Outubro, às 19h00 | <https://www.facebook.com/ProBluePT/>

5.3 Reach



MASTERCLASSES COMPARISON



Statistics were always recorded the following week of the live; but numbers would continue to increase over-time.

5.3 Reach



GEOGRAPHIC LOCATION & GENDER BREAK-DOWN

Masterclass Circular Economy



Masterclass Nets



Masterclass Plastic, Business and Innovation



5.3 Reach

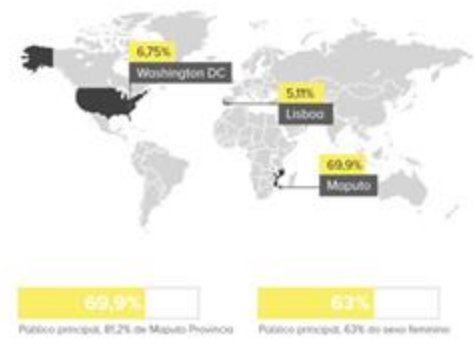


GEOGRAPHIC LOCATION & GENDER BREAK-DOWN

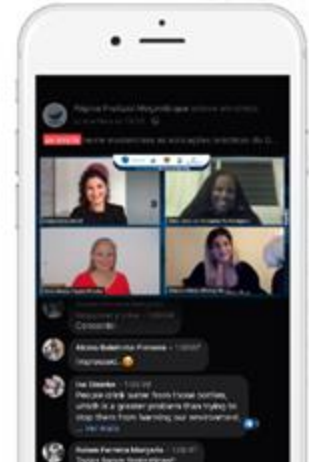
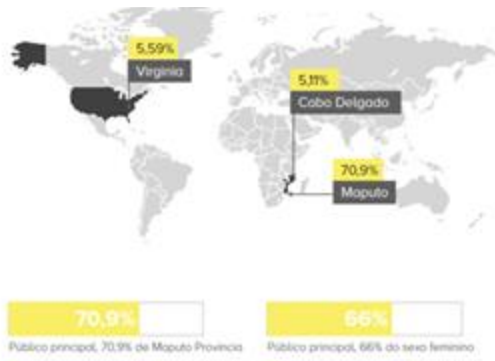
Masterclass Life without Plastic



Masterclass Recycling



Masterclass Sustainable Design



5.4 Vox Pops



In Mozambique we are still stuck on the idea that government needs to do everything and we forget our own individual responsibility. [MC3](#)

It is extremely important to share these experiences. [MC3](#)

It would be amazing to have a platform to know where eco-points are located, because at this point it is very hard to access this kind of information for those that separate waste. [MC5](#)

Wow, I'm loving this LIVE. Taking notes of all the ideas to implement in Mafalala, since we have so much PET. [MC3](#)

We are moving forward. With the necessary steps, slow changes, we will reach the final objective of sustainability. [MC6](#)

The problematic of the plastic bags is extremely concerning, we need to change our mentality to protect our environment. Amazing initiative and congratulations to the speakers! [MC1](#)

Who has a garage? Let's build our own fablab tomorrow! [MC3](#)

It is possible to have a life reducing the use of plastic. This all emerged from the civilization of fast, quick and easy and we forget our own cultural values and forget to check that the environment and our health begin to degrade. [MC4](#)

Congratulations to the team and the panel. Super interesting theme - my goal is to leave here with a new way of living "To only use plastic when strictly necessary" [MC4](#)

It is important for us to have brands that are sustainable, and the more they access market the more we will have access to them [MC6](#)

Congratulations to these wonderful and powerful women that help us take care of our environment. [MC4](#)

It is important for us to have brands that are sustainable, and the more they access market the more we will have access to them. [MC6](#)

The elimination of plastic as well as the environment's protection needs to be associated with an economic benefit in our context, so this is taken seriously by communities and authorities. [MC4](#)



Achievements

- **Audience Engagement:** engagement through the Facebook comments was not only with questions to the speakers but also conversations among the audience, discussing what exists in the country, the pros and cons, and how to get it done. Contacts were also shared and there was a group of 10-15 actors that became a loyal audience.
- **Mozambican Content:** beyond academia, content on circular economy and sustainability in Portuguese on more popular channels, such as social media is still widely generated by Brazilians. The Masterclasses in Portuguese contributed to this content, by Mozambicans for Mozambicans and other Lusophone Audiences.
- **Partners & Actors Visibility & Linkages:** the Masterclasses raised visibility, not only for government partners (MIMAIP, ProAzul, IIP, MTA) but also for actors in this space, contradicting the widespread belief that in Mozambique nothing relevant is happening when it comes to sustainability & the environment. Some of these actors were connected to other opportunities and platforms: see more on [linkages](#).
- **ProAzul's Reach & Engagement:** within only two months, ProAzul Facebook page followers increased from 57 to 785, an increase of more than 1.300%. Using lives on social media for an event hosted by a government institution was also very innovative in Mozambique, which ProAzul continued in other activities (e.g. JulhoemPlástico webinar, the Platform Launch).
- **Pioneering Conversations:** the MozAzul program and ProAzul were recognized as providing the space for these more public and engaging events and conversations on blue/ circular economy and sustainability in the country, disseminating information in less complex terms and outside formal, limiting and exclusive formats (such as conferences).



Lessons Learned

- **Schedule:** the MozAzul and ProAzul team gathered feedback on audience preferences on time, subsequent topics, and additional suggestions. It showed that there was no perfect time for everyone, given the diversity of our audience (gender, profession, etc), plus we needed to consider convenience for speakers. Nonetheless, post-live views would always increase 10x during the weekend, but all at different times as well.
- **Social vs. Traditional Media:** given the specificity of the topic, our “eco-conscious audience” would have probably preferred IG or YT to watch the Masterclasses. We opted for FB because it allowed for more than 2 speakers simultaneously and it is, by far, the most popular social network in Mozambique, as it is the most accessible in terms of data (lite platform, Facebook free basics, etc). Although it might have dispersed from our target audience, it did enable the Masterclasses to reach a much wider audience, country-wide. Nonetheless, concerted (but different) efforts on all platforms, including on twitter, tv and radio would have been interesting to test out for the various target-groups (eco-conscious, both actors and interested public vs. urban youth vs. fishing/ coastal communities).
- **ProAzul’s Social Media:** the use of a partner’s social media, rather than one specific to the program (MozAzul) created some confusion between entity and program, but it by increasing reach and engagement of ProAzul and all its activities had a greater contribution as well as to the sustainability of the MozAzul Inovação brand beyond the end of the program.
- **Communication Team & Budget:** both MozAzul and ProAzul team did not have dedicated human and financial resources at the start for communications, which could have maximized engagement early on and to another level. Nonetheless, with the part-time collaboration of the MozAzul and the ProAzul team, we still managed to get significant organic engagement and reach.

An underwater scene showing several striped fish swimming in murky water. A large, translucent plastic bag is visible, partially covering the fish, symbolizing environmental pollution. The overall color palette is dark with orange and brown tones. A large white number '6' is on the left side of the page.

Innovation Challenges

6. Innovation Challenges



OBJECTIVE

Innovation Challenges aim to engage local actors/ stakeholders to develop context-relevant ideas and solutions, collaboratively and innovatively, to address specific problems related to plastic pollution in Mozambique.

TARGET-GROUPS

- Challenge Proponents: government, development partners, civil society, private sector, academia
- Participants / Community: innovators, entrepreneurs, students

INITIAL APPROACH

Call for Solutions

Proponent shares necessary information on the specificities of the challenge. Country-wide outreach through ProAzul social media & partners.

Selection

Pre-selection made by MozAzul team. Final selection made by multi-stakeholder committee, including challenge proponent.

Award

Award format chosen by proponent, ranging from funding, partnership, training, incubation, etc. Follow-up is supported by MozAzul team but led by proponent.

6.1 Fishing Nets Innovation Challenge

August, 2020 – August, 2021 | National



PESCAMAR



CHALLENGE PROPONENTS

After the very successful [Fishing Nets Masterclass](#), ProAzul and PESCAMAR found a common challenge:

How to give a 2nd life to the ghost nets recovered in our oceans and the end-of-life nets collected from fishing communities?

OPPORTUNITIES/ AWARDS

ProAzul and Pescamar offered access to the nets for prototyping, technical support, links to fishing communities, and financing through a matching grant mechanism.

DESAFIO #1
Redes de Pesca

Procuramos

Várias soluções inovadoras, de todo o país, para a:

- Reutilização e transformação das redes já recolhidas, cansadas ou estragadas.
- Recolha das redes perdidas ou descartadas no oceano.

Full Brief (PT) -

<https://bit.ly/MozAzulDesafioRedesPDF>

FB Engagement

Post clicks: **450**

Reactions, comments and shares: **114**

Organic reach: **2,025**

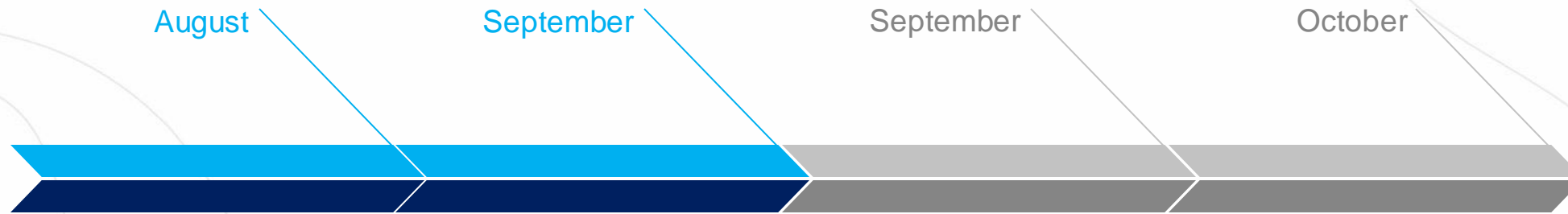
Paid reach: **19,921**

Google Form Clicks: 392

6.1 Fishing Nets Innovation Challenge



TIMELINE & PROCESS



Outreach

Mainly on ProAzul's FB and IG, MozAzul's newsletter, and widely through WhatsApp.

30 Solutions

30 solutions were submitted country-wide, through an online form with more details on the solution.

15 Pre-selected

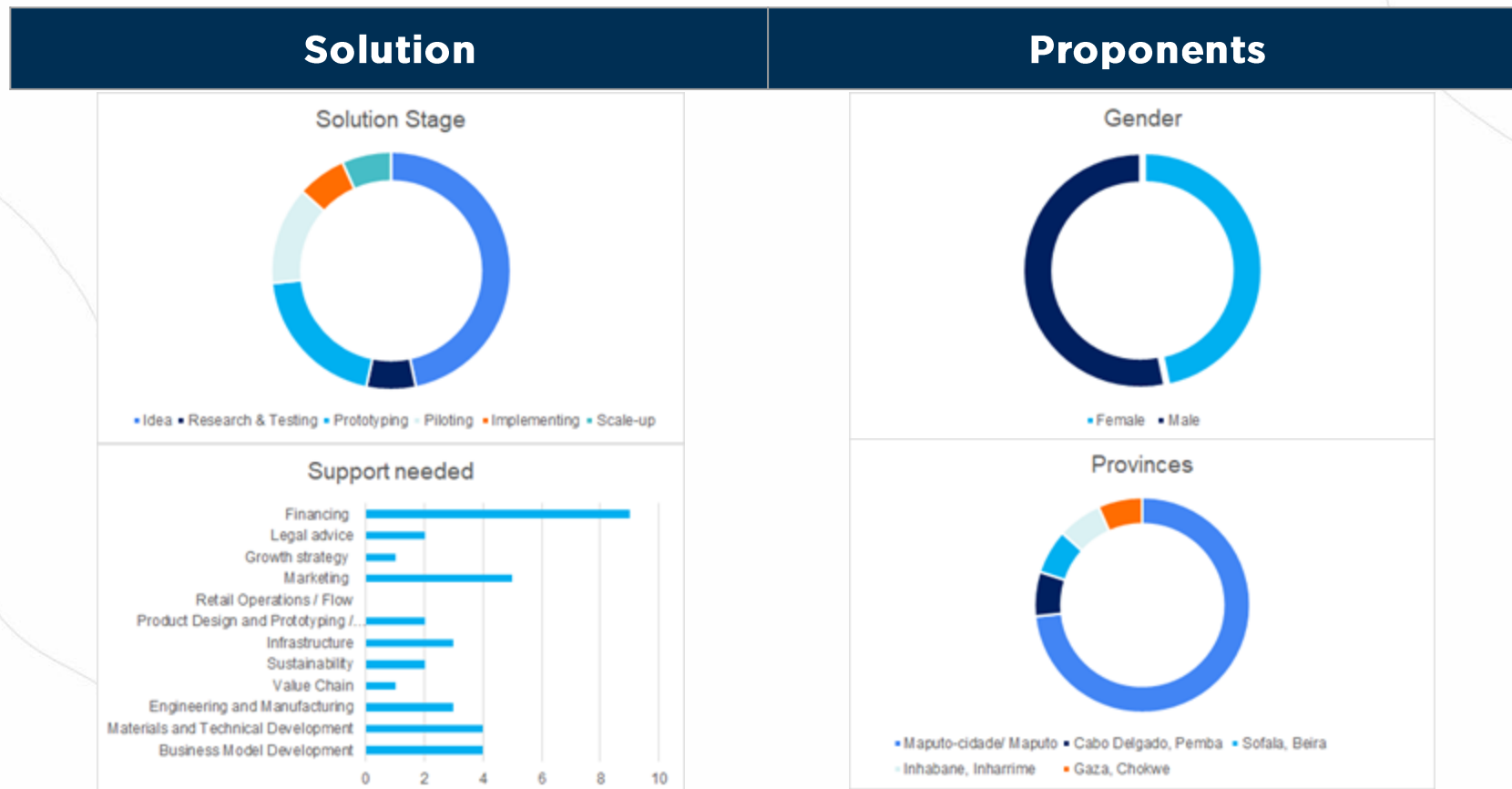
15 solutions were pre-selected by the MozAzul team based on the following criteria: market/context-fit, feasibility, impact, innovation, and scale.

Committee Q&A

The 15 pre-selected had the chance to present their solutions to the evaluation committee, composed by the proponents (ProAzul & PescaMar), IIP, the WB and Parley for the Oceans.

6.1 Fishing Nets Innovation Challenge

15 SOLUTIONS | STATISTICS



6.1 Fishing Nets Innovation Challenge

15 SOLUTIONS | SUMMARIES



<p>Reconice Mozambique Recycled Furniture from tyres and drums and the nets would be used to sow and tie in pieces.</p>	<p>MISAVA Mozi-One: produce cotton fabric sewn with the nets nylon for multiple purposes.</p>
<p>Mozambique Good Trade and Mabeco Tours Green Station: a collection and recycling/reuse station for plastic and glass based on Precious Plastic technology.</p>	<p>Mentes Sustentáveis: use the nets to produce multipurpose bags and mops for heavy cleaning such as floors, pots, among others.</p>
<p>Karingana Textiles M'Artesanato: use the nets to craft accessories (shoes, jewellery, wallets, hats) and household objects (carpets, baskets) and train coastal communities.</p>	<p>BioMec: build mechanical prostheses with plastic waste collected from the oceans, including the collected nets.</p>
<p>Blue Nets: crafts workshop for fishing communities to recycle the fishing nets.</p>	<p>SEGRINOV: creating an incentive mechanism to pay fishing communities to collect inadequate and ghost nets.</p>
<p>MAPSA: Nets for Greenhouses and Aquaculture tanks to prevent pests, predators and unwanted debris.</p>	<p>FDC: use PP from the nets to produce and repair school desks and chairs through a simple thermomechanical press.</p>
<p>Yopipila Pemba Recycled Housing: transforming the nets at high temperatures to produce roof tiles, floor tiles and blocks.</p>	<p>AMOR Pyrolysis: transform the fishing nets into usable fuel for ships and industry through pyrolysis process.</p>
<p>Nets in roads producing reinforced asphalt with recycled fishing nets for flexible paving, a low-cost technological solution for improving the quality of asphalt, in hot and rainy seasons.</p>	<p>Nets for Drains: use the nets to create traps that hold the waste going into the drainage pits and subsequently to the sea, in cities with inadequate drainage systems.</p>
<p>INOVAGRI eco-farming by using the nets for harvest baskets, vegetable greenhouses and fruit nets, and a variety of cages.</p>	

6.1 Fishing Nets Innovation Challenge



After the Q&A session with all 15 solutions, the process took a pause as ProAzul wanted to carefully reevaluate the scope and modality of their support.

NEW APPLICATION ROUND 2021

In March 2021, the process restarted and a new format was discussed with ProAzul, to fit their existing matching grants scheme mechanism and selection criteria. A new call for applications to the 15 solutions was launched in June, of which 5 re-applied, with final decision from ProAzul in August 2021.

WINNER

BioMec, a startup that works on transforming plastic waste into high-performance orthopedic prostheses was the awarded the nets & matching grant of up to \$20.000. Through the partnership with ProAzul, BIOMECC will incorporate end-of-life fishing nets as a raw material for their products. In a country where 90% of the amputee population has no access to prosthesis, this solution turns waste into high-value products before they end up polluting the oceans. The project will also engage coastal communities, imparting skills on better waste management and turning waste into income opportunities.

RESUBMISSIONS 2021:

- Karingana Textiles
- INOVAGRI
- BioMec
- AMOR
- Nets for Drains

BioMec

BioMec. The company aims to transform marine plastics debris (nylon-based fishing nets and ghost nets) into high-performance orthopedic prostheses. The objective is to improve access to affordable prostheses, in a country where 90% of the amputee population does not have access, due to the high prices involved or the long waiting lists.



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SEEKING FOR A BLUE FUTURE



6.1 Fishing Nets Innovation Challenge



MIXED FINANCING APPROACH

Aside from securing financing from ProAzul, the MozAzul team sought additional co-financing and other forms of support from other partners, to scale up the reach of the Innovation Challenge. These included:

- Foreign, Commonwealth & Development Office of the UK (FCDO: through the Blue Planet Fund and the Commonwealth Blue Charter/ Commonwealth Clean Ocean Alliance - with specific interest in Cabo Delgado.
- French Embassy, the French Agency for Development, and the Chamber of Commerce of Comoros - with specific interest in Ilha de Moçambique.

IRISH EMBASSY HEAD OF MISSION FUND

The Irish Embassy leveraged the MozAzul Innovation Challenge process and agreed to co-finance a selection of the finalists through the Head of Mission Fund (HoMF). Of the 15 proponents who participated in MozAzul, 4 of them re-submitted their projects to the HoMF.

All 4 of them were selected to receive funding of EUR 5.000-10.000!



Ambasáid na hÉireann
Embassy of Ireland

- Karingana Wa Karingana
- INOVAGRI
- Yopipila Pemba
- AMOR

Achievements

- **Representative Solutions:** pre-selected solutions were evaluated on criteria such as market/context-fit, feasibility, impact, innovation, and scale, but ended up achieving gender-balance and representation from a variety of provinces (even if mainly from Maputo), demonstrating the interest and innovation capacity country-wide and breaking gender norms.
- **Group Engagement & Network:** the WhatsApp group created with the 15 pre-selected participants was an excellent platform which ended up promoting linkages, knowledge sharing, opportunities and creating synergies among them, beyond the nets challenge.
- **Application Form + Q&A:** a joint Q&A session with all candidates and the proponents had tremendous impact for them to better explain their ideas, experience and capacity. This proved to be an effective way of pitching proposals in the Mozambican context.
- **Committee:** the initial committee members, composed of ProAzul, IIP and Parley, were exposed to some of these very innovative ideas and interested in following up.
- **ProAzul Reach:** the challenge post had the largest number of clicks (450) in 2020. It also had an organic reach of 2,025 and, as the first paid post on the page, an additional 19,021 of paid reach.

Lessons Learned

- **Challenge co-design:** although every step of the challenge process were co-designed with the proponents, perhaps definitive decisions should be made solely by proponents to ensure their capacity to follow-up on the solutions selected and “award” defined.
- **Committee vs. Proponent decision:** the involvement of external stakeholders in the decision-making process might not always be ideal, given that the final decision needs to be made by the proponent(s) that will take on solutions. It did, however, bring interesting and valuable insights and visibility for the solutions.
- **Delays:** are a risk, not only due probable reduction of participants interest and engagement in the challenge, but to the fact that it damages the reputation of all involved and diminishes credibility in future activities. When process is uncertain as it is being tested, better to refrain from giving too many details (e.g. calendars, next steps, etc), although this might raise participants expectations.
- **Solutions submitted individually:** found opportunities for synergy during Q&A, which then informed the new format tested in the Plastics Innovation Challenge, to stimulate co-creation of solutions rather than ready solutions submitted individually.
- **Communication budget:** only \$10 were spent to promote the challenge opportunity post more widely, which added to the organic reach of the usual 2,000 with an additional 20,000 people reached by the paid promotion. Demonstrating the importance of a communication budget, including for social media, even if minimal.

6.2 Plastics Innovation Challenge



After the experience of the fishing nets challenge, an opportunity emerged to test out a different approach for spurring engagement, entrepreneurship and crowdsourcing innovative solutions. This second approach would focus, not so much on generating specific solutions to a set challenge, but on the longer term, value-added process of innovation. That of an **Ideation Process**, delivering impacts through stakeholder networking, sharing knowledge and experience, and the cultivating of innovation tools that innovators could apply in their own projects.

For this **Plastics Innovation Challenge**, MozAzul collaborated with INKDot, a boutique consultancy company specialized in innovation, to co-create a new innovation process around plastics that would attempt to focus on upstream solutions for Mozambique.

The general problem statement proposed was:

How might we reduce the use and consumption of plastic (and it's derivatives) in the context of Mozambique?

6.2 Plastics Innovation Challenge



THE PROCESS

The whole process consisted of an **Insights Session** (public), an **Ideation Process** (participants and mentors) and a **Demo Day** (public), over one month.

Participants were engaged and guided through a facilitated and exposed to a series of skills, tools and techniques.



6.2.1. Insights Session



INSIGHTS SESSION

The process was kicked-off with co-creation of the general problem statement, to ensure that the problem definition originated from the stakeholders themselves and not the MozAzul team. Key actors in the plastics value-chain were invited to participate in a dynamic insights session to collaboratively gather **shared perspectives on the blockers and facilitators** around the plastics and waste value-chain in Mozambique.

This session was also in response to feedback gathered from stakeholders throughout the MozAzul Program that **“there are still not enough spaces for the ecosystem around waste management and sustainable solutions to come together and have conversations that go beneath the surface”**.

OBJECTIVES

- To get buy-in, engagement and commitment from ecosystem stakeholders to support the ideation process
- To gather insights and perspectives about the blockers and enablers of the “plastics issue” to inform the ideation process (and in particular to validate the problem statement that would anchor the process)

FORMAT

The session had representation from government, private sector, entrepreneurs, innovators, technical experts, environmentalists, and representatives from donors / NGOs / civil society. They were put together in mixed smaller groups to exchange ideas on the problematic using a specific format to guide the conversations.

6.2.1. Insights Session



An invitation to debate was posed to the public:

“**Life with no plastic: Possible in the Mozambican context?**”. This generated curiosity and a heated discussion even before the session was held, and this debate carried over into the Insights Session (held on July 22nd).

32 participants in the Insights Session emphasized the following themes as priorities with regard to the core challenge:

- Encouraging and incentivising alternative materials that are accessible, affordable, viable.
- The need for awareness raising, sensitization and community / public engagement to encourage behaviour change
- Making the producers and importers of plastics responsible
- Ensuring engagement from interdisciplinary players and start with testing ideas / proof of concept



1. Acredita num futuro sem plástico?



Poll conducted at the beginning of the session

6.2.1. Insights Session

GROUP DISCUSSIONS WORD CLOUDS



Blockers

What factors or characteristics from the local context could be blockers to the necessary change of reducing the use and consumption of plastics in Mozambique?



Enablers

What factors or characteristics from the local context could be enablers to the necessary change of reducing the use and consumption of plastics in Mozambique?



6.2.1. Insights Session



In your opinion, what would be the main aspect to consider when creating relevant solutions for the Mozambican context?

Testing. Without testing the solutions, even on a small scale, we cannot understand the potential impact of the ideas.

Concerted policy solutions. Geographically and sectorally, to leverage changes that for now are limited technically economically and in widespread access.

Interdisciplinary collaboration and support to create alternative products to plastic.

Local habits and customs. The more specific solutions found the more likely they are to be accepted and ingrained. Think about how and why people use plastic and what alternatives exist to improve/minimise/recycle its use.

Environmental awareness. That's the first step and perhaps, in my opinion the most important. As long as the community is not aware we cannot improve.

Single use plastic. Eliminate it!

Usefulness and efficiency of the solutions.

Education and cultural transformation. It will not happen spontaneously.

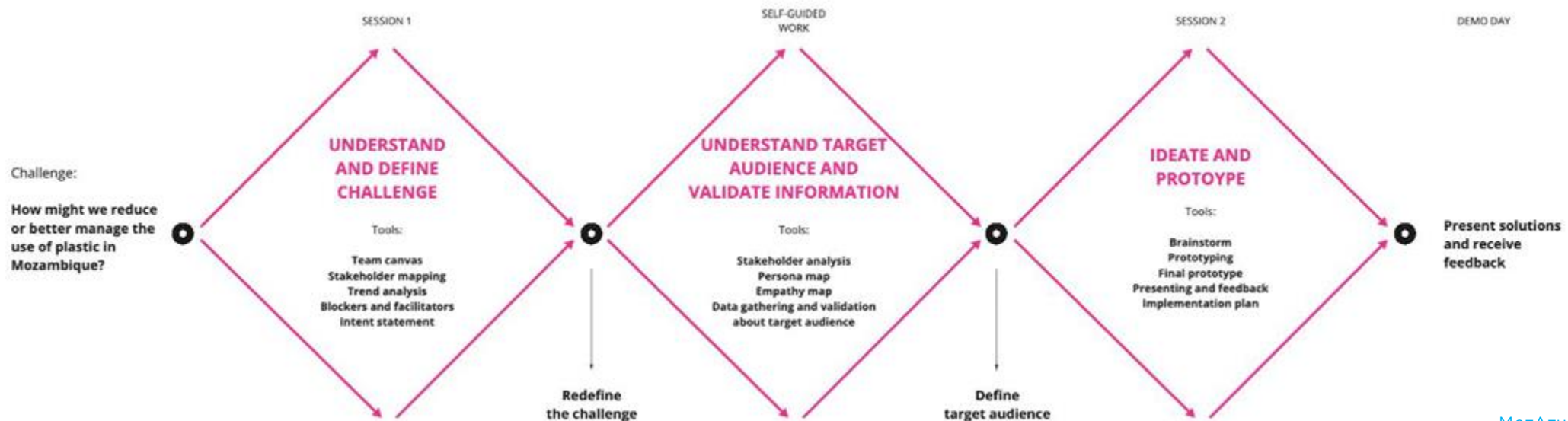
Proof of concept and cost affordability of alternative products/materials. v

6.2.2 Ideation Process



After the Insights Session, a selection process was carried out to shortlist participants for the **Plastics Innovation Ideation Process**. General Brief (PT) - <https://bit.ly/DesafioPlasticos>

This process was focused on leading participants through a **simulation of steps needed to bring an idea to eventual uptake**. With the problem statement in mind, participants identified an aspect of the challenge to focus on and the target audience for their innovations. Participants were equipped with tools to gather information about their target audience, and then supported through a design process to explore ideas and sketch prototypes of their chosen final solution. The Ideation Process and accompanying tools were **grounded in Design Thinking**, moving through the dynamic innovation process of diverging and converging.



6.2.2 Ideation Process



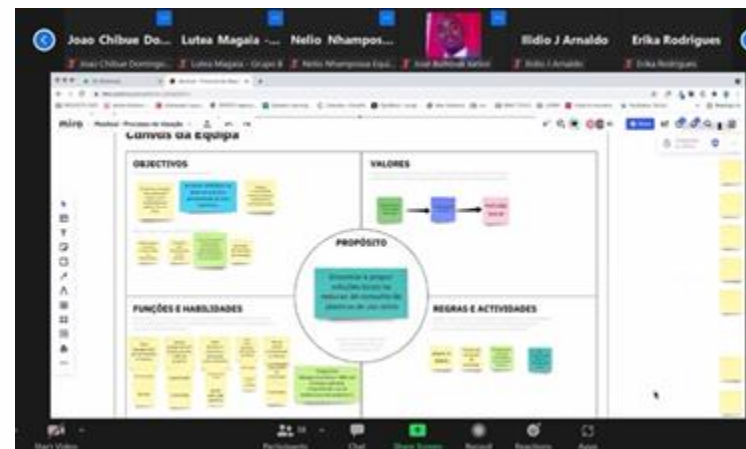
The working sessions **took place 100% online**, using Zoom and MIRO for collaborating online. MozAzul supported with internet data bundles, but internet connectivity still varied widely.

50 applications
team and
individual

32 selected
teams and
individuals

Participated:
50 innovators
in **12 teams**

Online collaboration



6.2.2 Ideation Process



The multidisciplinary and country-wide representation of the whole group was a strong plus:

- government agencies (MTA, DINAB, IIP)
- development partners (BIOFUND)
- civil society (AMOR, ZeroWasteMoz, APETUR, Oikos), and
- chemical engineers, environmentalists, biologists, activists

All working together, exchanging knowledge, experience, and contacts.

7 mentors, all key actors in the plastics value-chain in Mozambique, with experience in waste management, sustainable design, civil and chemical engineering, plastics manufacturing and distribution, supported participants in understanding better the problematic and developing their ideas.



Karingana Wa Karingana | Djamila Sousa
Fundação Carlos Morgado | Ruben Morgado
Consultor Gestão de Resíduos | João Vaz
Reciclagem & Serviços | Rui Silva
Coca-cola | Marketing & Sustainability Team & the Managing Director
TOPACK | Jaime Lima
BIOMECH | Marta Uetela

6.2.2 Ideation Process



SOLUTIONS (i)

<p>Team 1: Integration of environmental education and the importance of reduction, reutilisation and recycling, in the 1st and 2nd grade curriculum; outreach and dissemination of this information through community lectures.</p>	<p>Team 4: An interactive game for children, adolescents, young people to help them learn about environmental management and encouraging them to participate in cleaning and management of waste in each area / city of Mozambique; teaching them the different characteristics of types of waste, and giving them points for their positive impact.</p>
<p>Team 2: Mobilising young people to collect plastic litter from beaches and ocean in Ilha de Moçambique, and transformation workshops to create “eco-bags” to sell to tourists in hotels and restaurants, encouraging them to join the effort to collect litter or to keep / carry their own litter (to be recycled).</p>	<p>Team 5: Comic strip competition for young people and children on the theme of environmental management. Inclusion of whole community in the process (communication, jury, definition of selection criteria). Opportunities to win prizes like phones, waste management courses and support for development of their business ideas / initiatives focused on environmental management.</p>
<p>Team 3: Community waste management centers where litter is received, screened and separated, and awareness raising workshops are held for citizens about the importance of screening and benefits of composting of organic waste. Longer term, establish cooperative of all the centers to gather data about waste collected, enabling them to attract clients from the transformative industry.</p>	<p>Team 6: Community hubs for integrated management of plastics from awareness raising /sensitization, waste collection and channeling to recyclers, monitoring of plastics and do plástico e brokering sales of waste. Longer term, creating an interactive platform to include government, producers, recyclers and consumers to enable inclusion of the hubs in the national policies on management of plastic waste.</p>

6.2.2 Ideation Process



SOLUTIONS (ii)

Team 7: Approval of the plastic ban policy accompanied by a communication campaign: seminars for importers, industry and commerce, lectures for artisans and TV and radio programs for the general public. Also, creating incentives for the creation of an industry of alternatives to plastic bags.

Team 8: Replacing styrofoam takeaway containers with containers made with local, biodegradable raw material (e.g. banana leaves) by local producers in Ilha de Moçambique, sold at competitive prices to supermarkets, hotels and tourists. Awareness raising in community about the separation of leaves, collection, cleaning, pressing and transformation into containers - using social media and radio to campaign for the elimination of styrofoam containers.

Team 9: Treatment centre for waste, involving the “catadores” (collectors), communities and the local government (Chefes / Secretários de Bairro) in order to create revenue for the collectors, separating waste and channeling it to the recyclers and transformation industry.

Team 10: Promoting the environmental awareness through attractive content for radio programs, TV and social media with the support of digital influencers and artists.

Team 11: Developing and legislating for associations and cooperatives of “catadores”, creation of a municipal database of these to train them in identifying and differentiating plastics, and ultimately in creating a creative space for them to transform / reuse the waste collected.

Team 12: Sensitizing the community in Vilanculos to deposit waste at “ecopontos” (collection points) and distribution of waste to intermediaries / recyclers, in order that in the long term methods and channels for local recycling are created.

6.2.3 Demo Day



Demo Day was an opportunity to present the outputs of the ideation process, gather additional feedback and continue the networking between participants, mentors and a wider interested public.

48 attendees joined the session and each team had 2 minutes to present and 3-5 minutes for the audience to seek clarification and/ or add valuable inputs. There was also a short break in smaller breakout rooms with mixed groups to promote further networking.



6.3 Plastics Innovation Challenge Process



PARTICIPANTS FEEDBACK

- **100 % agree or totally agree that:**
 - ✓ the tools and competencies they acquired were useful
 - ✓ they can apply the tools and competencies in the future for other ideas or projects
- **100% were satisfied or totally satisfied with**
 - ✓ the sharing and collaboration in the groups
 - ✓ the facilitation team
- **95 % agree or totally agree that:**
 - ✓ they gained contacts to help them advance with their ideas
- **95% were satisfied or totally satisfied with:**
 - ✓ the content and materials distributed
 - ✓ the support and availability of the organising team
- **85% were satisfied or totally satisfied with:**
 - ✓ the exercises and activities implemented
 - ✓ the logistics and organisation

Testimonials



“It was a unique experience”

It was great to exchange ideas with my group, on a topic that was not part of our core activities, but is a common value. The tools enabled a variety of ideas of ideas and the group work helped to consolidate and obtain various solutions to the same problem. The Miro tool, too, was very interactive. Congratulations to MozAzul!

It was a unique experience that really changed my view on plastic waste and gave me a new perspective and ideas on how to reduce plastic waste.

These days were transformative for me. I had a lot of interaction with plastic waste research, which was already one of my passions but I just didn't know where to start. The conversation with the mentors always brought light to the ideas I was outlining. And having learnt the miro program was super nice. I thank the opportunity and I hope to continue to contribute to sustainable actions. I strongly hope this opportunity comes to stay and more young people can access to it.

I particularly learnt a lot from this ideation. I believe that every solution that emerged to reduce and manage plastic is sustainable and will certainly help to mitigate this problem in our country. I want to take this opportunity to congratulate everyone behind this initiative. It was amazing to be able to learn and hear more about the main solutions to reduce the use of plastic.

I liked it very much because it made me realize how much can get done to achieve a goal, especially when there are many people involved.

I found it difficult to participate actively in the activities, due to lack of better resources, but the experience provided a robust knowledge about the topic at hand, allowing a broader view of business opportunities, partnerships, social and environmental cause.

It allowed me to meet other people who have the same concern on environmental issues related to plastics and to learn more about the ideas and projects that were presented.

Achievements

- **Connecting the ecosystem:** the multidisciplinary and country-wide representation of the whole group was a strong plus, enabling direct conversations in a collaborative and informal setting, key for the understanding of different positions and roles, finding a common ground, and having conversations that go beneath the surface.
- **Government involvement:** as often perceived as inaccessible by most stakeholders, having government representatives from key ministries and agencies participate in the process, made a significant contribution to bridging that gap.
- **Mentors:** all 7 mentors were highly invested in contributing to the process and dedicated more time than planned to supporting the teams. Involving mentors also contributed to enriching everyone's network in the value-chain.
- **Group Engagement & Network:** the WhatsApp group created with the participants is already demonstrating its usefulness as an opportunity for engagement beyond the ideation process, as an accessible platform to promote synergies, knowledge sharing, and opportunities.
- **Linkages beyond the process:** 2 teams working on pyrolysis, 2 teams working in Ilha de Moçambique, informal waste pickers solution with the participation of a government representative with link to the municipal council that could take this very needed solution to fruition.

Lessons Learned

- **Time constraints:** innovative solutions require depth, time and investment. Whilst the process was not intended to develop robust prototypes, a longer process would allow for more exploration and research into the problem statement as well as time to validate and improve ideas based on more in-depth feedback and user discovery. The process could also be improved with shorter, more spaced out sessions, giving participants time to absorb learning and apply it (as well as fitting in with work / study / life commitments).
- **Online:** is both a an opportunity and a challenge, especially for those outside of Maputo, where internet access is unreliable, even if data bundles were distributed. A mix of online and in-person sessions would be ideal, but influenced by COVID and budget restrictions.
- **More networking & exchange:** although there were opportunities for sharing across teams, more of these moments would have enabled additional networking and leveraging on the whole group multidisciplinary knowledge, contributing further to reducing an important challenge in the ecosystem, that of “dispersion and lack of coordination of actors, programs and information”.
- **Mentors & interested audience:** engagement with more mentors and an interested audience to participate in the process, would add to continuing to connect the ecosystem further and increase probability of solutions development and uptake beyond the ideation process.

The background of the slide is a photograph of a fish farm. Numerous striped fish, likely tilapia, are visible swimming in the water. A large, white, semi-transparent net is draped across the middle of the scene, partially obscuring the fish. The overall color palette is dark, with a blue and purple tint. There are decorative elements: a large white number '7' on the left side, and a series of thin, overlapping white circles on the right side. The top and bottom edges of the slide feature a multi-colored bar with segments in blue, green, yellow, orange, and red.

Workshops

7

Testimonials



TARGET-GROUPS

Existing and/ or new innovative initiatives that are developing circular economy-enabling products/services along the value-chain.

OBJECTIVE

Provide capacity-building (business and technical) to innovators by expert partners. Under the original plan, in-person workshops would create a pipeline for the Innovation Fair and contribute to audio-visual content for the digital platform and communications in the form of short tutorials for a wider audience.



With COVID-19, the team had to shelve most plans for in-person activities, as later pandemic peaks hit the country. Nonetheless, MozAzul Inovação still managed to hold 2 in-person workshops and 1 online:

- Artisans Meetup and Workshop during the scoping session, dedicated to mapping and where the 1st PET bottle striping training took place in Maputo (in-person)
- ALMA PET Workshop in Tofo, Inhambane (in-person)
- Parley for the Oceans Workshop (online)

7.1 Parley for the Ocean Workshop



October 27th, 2020 | Online

OBJECTIVE

Associated with the nets challenge, [Parley for the Oceans](#) offered an online workshop to all 15 pre-selected solutions to improve their technical skills on prototyping with the nets.

MODULES

1. Net Recycling Goals
2. Net Materials
3. Net Sourcing
4. Net to Product
5. Partners and Opportunities

MODULE 3 NET SORTING



1: SORTING

Remove all the weights, floats and separate different types of plastic i.e. polypropylene line from nylon net



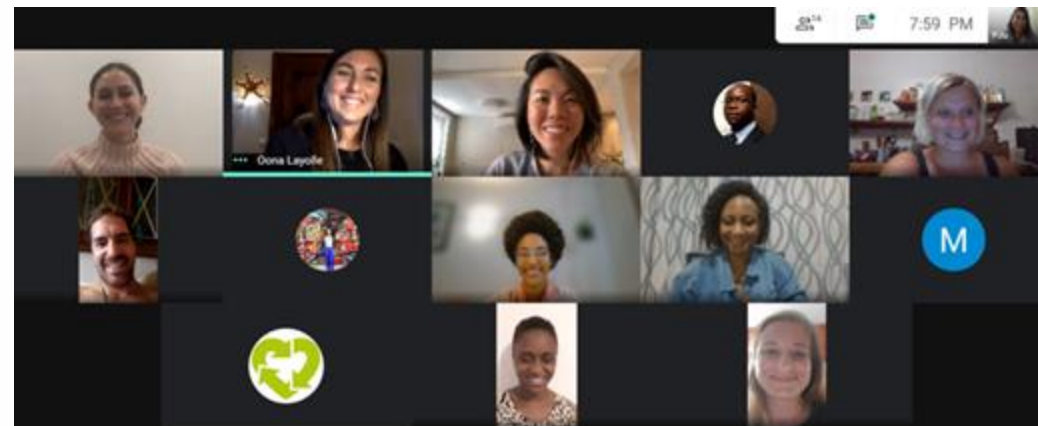
2: CLEANING

Remove major debris such as sand and organic matter.
Remove any leftover small net scraps that are not the sorted net. (i.e. small cuttings PP leftover in nylon net)



3: ULTIMATE AIM

One material type, dry, not tightly screwed or wound together.
Compact the whole bag for shipping rather than tightly bundling the net



7.1 Parley for the Ocean Workshop



ACHIEVEMENTS & LESSONS:

Although holding a technical workshop with a reputable international organization and with participants across the country in-person would have involved significantly higher costs, the amount of demonstrating and learn by doing is limited in the online space. Nonetheless, the workshop was valued by all participants.

ONLINE WORKSHOP ENGAGEMENT

People (22) Chat

the world for recycling equates to CO2 emissions. have you quantified that footprint?

What is your opinion on decentralized, small-scale recycling - can it be viable? what are the drawdowns?

Mozambique Good Trade 6:21 PM
finally: have you ever collaborate with Precious Plastic project or people using Precious Plastic technology? what is your opinion on it?

Daniel Segura Goya 6:23 PM
Afternoon guys. This is Daniel Segura from ProAzul. Sorry I lost my connection but I am back! Parley rules!

You 6:23 PM
You can leave your questions here and Oona and Lisa will address them as soon as they can

Stephane TEMPERMAN 6:24 PM
@Mozambique Good Trade, yes it can be viable for certain kinds of plastics and actually is happening in Mozambique. But not for PET

People (22) Chat

audiobook..

Mozambique Good Trade 6:36 PM
separation of plastics and contaminants seems like the most labour intensive part. does it have to be done manually? any technology available?

Djamila Sousa 6:38 PM
What is the afterlife of the products created by this process? Can they be recycled again? How many times?

Ruben Morgado 6:38 PM
Separation per type of plastic is the biggest challenge!

Ruben Morgado 6:42 PM
@djamila I believe if you don't mix with anything else non recyclable then you can keep recycle

People (21) Chat

Ina Steinke 6:50 PM
I struggle to understand how recycling the nets is economically viable, as well as if it is actually good for the environment after all the shipping and processes. Obviously nets need to be cleaned up, but I find it hard to move from: take out of the ocean, clean, and use for backfill for flooring in construction, or some other way to immediately get rid of it without too much tampering.

Ina Steinke 6:52 PM
Sirens.... definitely the US

our police has no fuel.

Lutea Magaia 6:54 PM
I agree with you Ina. It's important to develop local technology to guarantee the minimum environmental impact and the best economic benefits.

7.2. ALMA PET Workshop



August 26th, 2020 | Inhambane, Tofo

The ALMA PET workshop consisted in working with waste collection micro-operators to transform PET bottles into raw materials that can generate income for the local community (in-person).

OBJECTIVES

- Co-design processes with micro-operators to optimize collection of PET bottles and co-develop low-cost techniques to transform PET into plastic strips so they become raw materials;
- Motivate local artisans to use PET strips to create artisanal products based on weaving techniques already used locally;
- Develop business models for micro-operators and artisans to foster sustainable circularity.

PARTNER

MozAzul team identified [ALMA](#), an environmental association based in Inhambane Province, as an ideal pilot partner, due to their work contract with the Inhambane Municipality as the official waste collection service provider in the village of Tofo, and relationships with the local community through arts and crafts activities to upcycle waste locally.

7.2. ALMA PET Workshop



August 26th, 2020 | Inhambane, Tofo

12 local artisans and ALMA staff participated in the workshop, respecting all COVID-19 restrictions. The participants, in general, were very receptive of the activities as they engaged and worked hands-on in the fileting process.

ACHIEVEMENTS & LESSONS

- They understood the potential of plastic strips as raw material for building products and were generally impressed by the quality of the baskets, mats, and brooms that were showcased.
- The workshop was a different and useful approach to create awareness for the need to better manage plastic waste, by **reinforcing the idea that there is economic value in waste rather than focusing on the environmental impact.**
- It was not clear if there is a business model that is able to gain traction locally as the preparation of the bottles for stripping can be labor intensive and local purchasing power is generally low. Moreover, tourism was down due to COVID-19, and because the products were not aesthetically perfect, artisans were not convinced tourists would buy because of the recycled aspect or story. More space for testing and validation of needs and perceptions would have been useful, both on the supply and demand side.

7.2. ALMA PET Workshop



26th
August,
2020 |
Inhambane
, Tofo



Low -cost PET stripping tools made out of recycled material



Workshop participants practicing PET bottle stripping



Mat made out of stripped PET bottles



Basket made out of stripped PET bottles



A stripping tool in action creating different size strings



Artisans and MozAzul team



Digital Platform

8



8. Digital Platform



CONTEÚDOS

Todas as informações sobre lixo de plástico



ATIVIDADES

Todas iniciativas locais para reduzir o plástico



OPORTUNIDADES

Todas as oportunidades na economia circular



ENTIDADES

Todas as organizações que trazem soluções



PRODUTOS

Todos os produtos que fazem a diferença

The first digital platform on Blue Economy, Circular Economy and Marine Litter in Mozambique.

www.mozazul.org.mz

PURPOSE

A dynamic repository, where all stakeholders **can consult and contribute with** studies, legislation, actors, initiatives, campaigns, opportunities and varied information on these topics. It aims to promote visibility, linkages and access to knowledge, opportunities, and market.

SUSTAINABILITY

Early on, the possibility of a handover to ProAzul at the end of the program was explored, as the partner with more public engagement, which was confirmed at the beginning of September 2021, with official approval from ProAzul's CEO and technical training and support to ProAzul's communications team.

8. Digital Platform



EVOLUTION TO 2.0

At the beginning of the MozAzul program, the digital platform was intended to enable crowdsourced mapping of both land and sea-based plastic litter hotspots. Soon after the 1st stakeholder conversations during Mission 1, the team gathered that there were other features that would be more valued and relevant for public engagement:

- Access to information and data
- Stakeholder and value-chain mapping
- Access to market

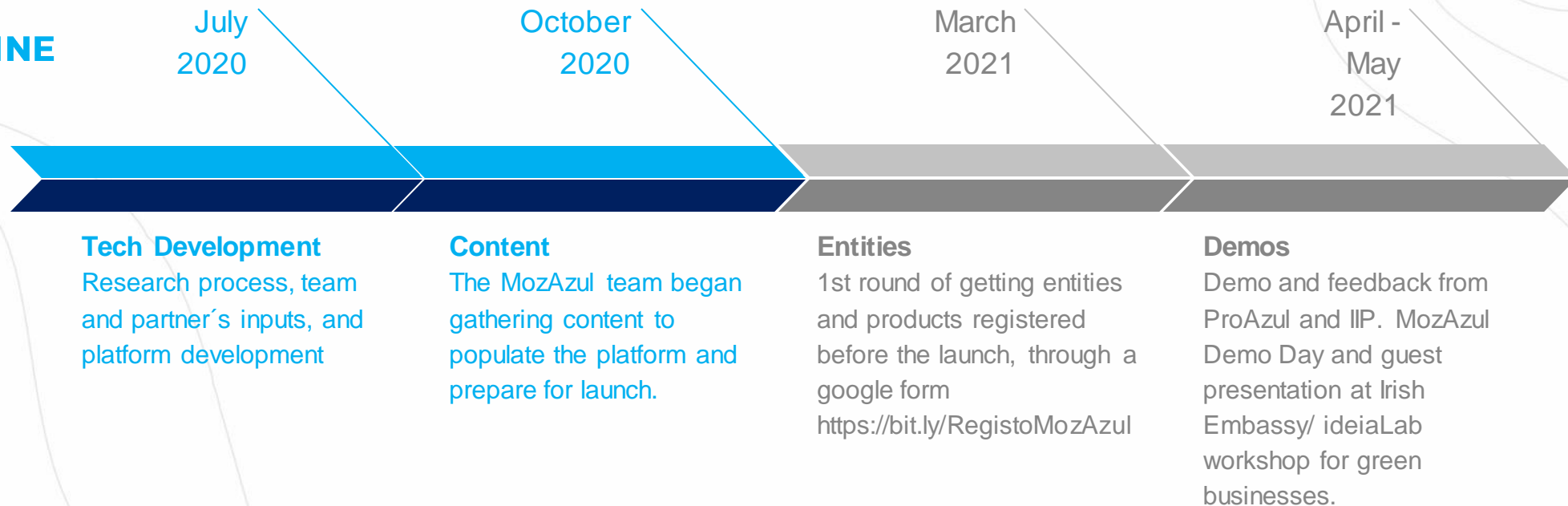
Using agile methodology, the platform evolved (version 2.0) to respond to the needs of the Mozambican context, maintaining the crowdsourcing format that would reduce significantly the team efforts to maintain content updated, for sustainability, and work best at public engagement.



8.1 Beta-testing



TIMELINE



FEEDBACK & REITERATIONS

Adjustments and additions, based on the feedback from the demonstrations to multiple stakeholders, were adopted. These included improvements regarding user experience, navigation, categories and content. A section for contributions to the Plano Nacional from IIP and a section for the Grievance Mechanism from ProAzul were embedded to link the various platforms.

8.2 Launch



The platform was launched on World Ocean's Day, on ProAzul's Facebook. The initiative was welcomed by many that watched the [live](#).

MOZAZUL.ORG.MZ

- O que é o MozAzul?
- O que é o Lixo Marinho?
- Qual é o Plano de Acção?
- Quer ser um Parceiro?

DIA MUNDIAL DOS OCEANOS 2021 | LANÇAMENTO DA PLATAFORMA VIRTUAL MOZAZUL

SAVE THE DATE TERÇA-FEIRA
8 DE JUNHO 2021
12H00 - 13H00

LIVE no Facebook do ProAzul
<https://www.facebook.com/ProAzulFP/>

www.proazul.gov.mz | ProAzulFP | proazul_mozambique

UM OCEANO AZUL ONDE MORA O FUTURO

- CONTEÚDOS**
Todas as informações sobre lixo de plástico
- ACTIVIDADES**
Todas iniciativas locais para reduzir o plástico
- OPORTUNIDADES**
Todas as oportunidades na economia circular
- ENTIDADES**
Todas as organizações que trazem soluções
- PRODUTOS**
Todos os produtos que fazem a diferença

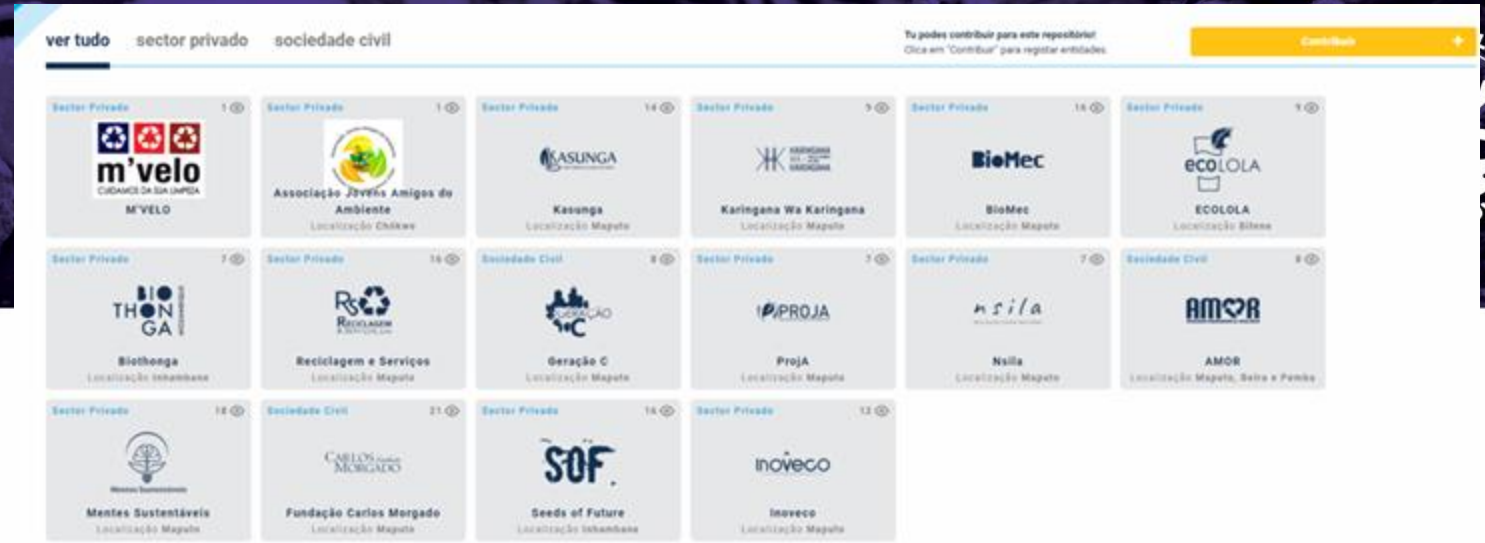
LIVE 25:03 | 30 | 19

Lançamento da Plataforma Digital MozAzul

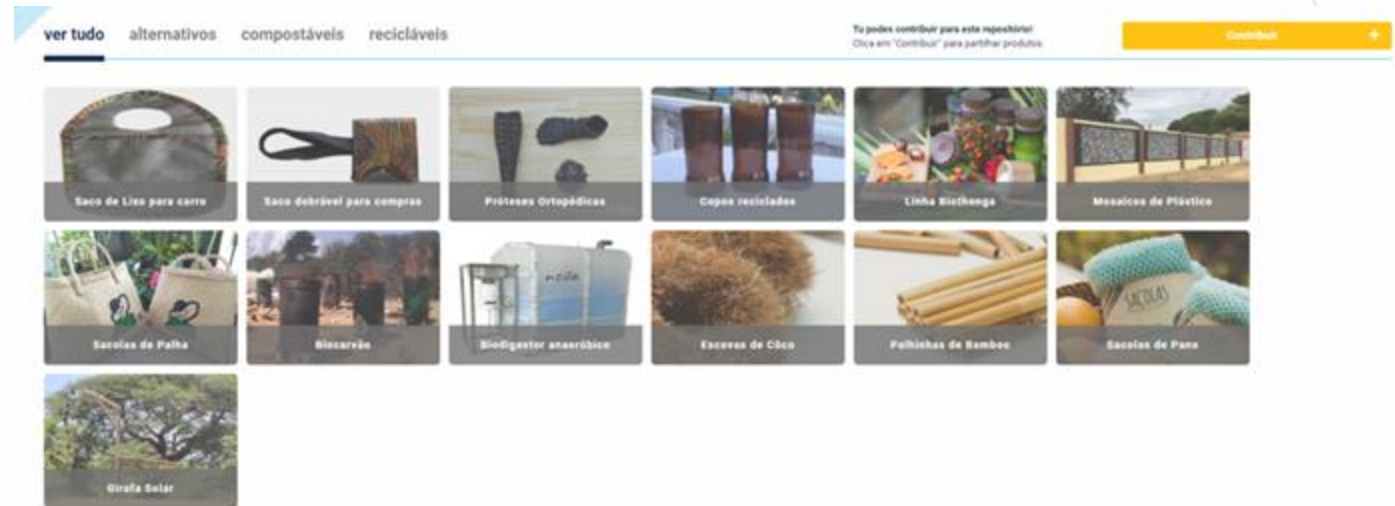


8.2 Launch

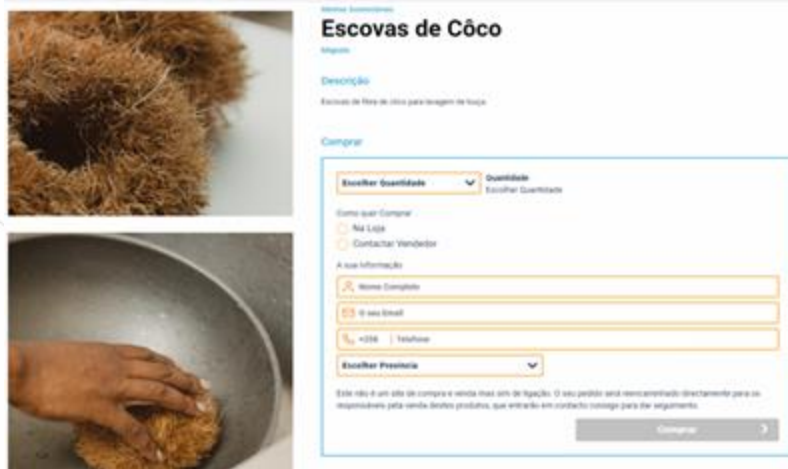
The platform reached **340 views** in the 1st month.



Page to map stakeholders contributing to circular/ blue economy and/or sustainable development (government, private sector, civil society, etc)



Page to showcase products (recyclable, reusable, plastic alternatives, compostables, etc)



Product page to generate leads for entities (access to market).

Achievements

- **Co-designed Platform:** development and launch of a digital platform responding to the needs of the market and a variety of stakeholders (despite the limitations on the planned in-person co-design workshops).
- **Sustainability beyond the Program:** supported handover to ProAzul will enable the platform to continue to exist and crowdsourcing feature will enable it to continue updated, with no heavy additional efforts from the partner.
- **Pioneer platform on Blue/ Circular Economy and Sustainability:** the MozAzul platform was the first to bring together information (studies, reports, activities, actors, products, opportunities, etc) in Mozambique, responding to the challenge of disperse information and lack of coordination between actors and programs. Moreover, not only is it a repository of national actors, but also a window to international players.
- **Access to Opportunities:** ALMA was selected to participate in the IUCN Marplastics program, after finding the opportunity in the MozAzul digital platform.

Lessons

- **Communication Efforts & Budget:** once again, the results achieved have been mainly driven by MozAzul's and ProAzul's communication teams online organic efforts (i.e. non-paid, non-physical promotions or campaigns) due to budget and COVID-19 constraints. The results of paying for online campaigns, holding physical activations and linking to MIMAIP's communications structure (tv, radio, newspapers) could take the platform's reach and crowdsourcing inputs to an exponential level.

An underwater scene featuring several striped fish swimming around a large, clear plastic net. The entire image is overlaid with a semi-transparent red filter. The fish are positioned at various depths and angles, some appearing to be caught or near the net. The background shows some aquatic vegetation and light filtering through the water.

Eco-Biscates

9

9. Eco-Biscates



eco-tasks via *biscate**777#

PURPOSE

Promote alternative income generation options for coastal communities, whilst reducing the impact of marine litter.

What are eco-tasks?

Eco-tasks are short, freelance tasks that have the end objective of protecting and improving the environment and natural ecosystems. Some examples include beach clean-ups, tree-planting or collecting plastic waste for recycling.

How does it work?



9.1 Eco-Biscates Pilot with ALMA



PILOT

Eco-biscates is being piloted in Tofo, Inhambane Province, with focal point ALMA, as they already have a work contract with the Inhambane Municipality as the official waste collection service provider in the village of Tofo. Beyond this, they have a workspace and team that has been operating these services for more than 10 years, and have working relationships with the local community through waste collection and processing services.

GOALS

- Implement a trash for cash initiative for plastic waste collection in and around Tofo;
- Collect plastic from the beach and from the Tofo dumpsite, clean it, and store it for transformation/processing;
- Employ the local community struggling with employment due to COVID-19;
- Educate and motivate the community to collect plastic waste for monetization.

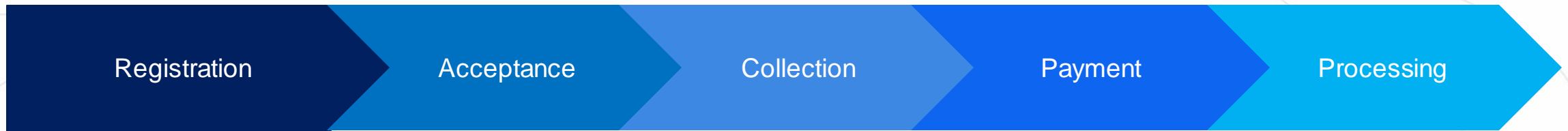
OTHER INTERESTED PARTIES & LOCATIONS

- Makobo | Maputo & Pemba
- Yopipila | Pemba
- Oikos & APPETUR | Ilha de Moçambique
- IIP & ProAzul | Katembe

9.1 Eco-Biscates Pilot with ALMA



PROCESS



Registration

ALMA sources potential workers from community and they register on Biscate (share details on gender, age, education profession, location).

Acceptance

Registered workers are informed when there is an eco-biscate and they accept the taks. They are given health and safety equipment and instructions.

Collection

Workers collect waste from beach and neighbourhoods and take to ALMA facilities. Waste is weighted per worker.

Payment

ALMA pays workers per weight of waste collected (6 mzn per kilo), through M-Pesa, using the Biscate Platform.

Processing

ALMA cleans plastic waste collected and uses for it the different processing activities: arts and crafts, bailing for export, etc.

9.1 Eco-Biscates Pilot with ALMA



Preliminary Results | September 9-23rd (2 weeks)

1009 KG of plastic waste collected

6,052 MZN to **14 workers**, 11 women and 3 men

Target: 10 tons in 3 months (1 ton per week)

Eco-biscates gained additional funding from ProBlue and will continue its testing and implementation beyond the MozAzul Program.



The background is a vibrant, slightly blurred photograph of a coral reef. The water is clear, showing various types of coral and fish. A large, white, sans-serif number '10' is superimposed on the left side of the image. The number is very large and prominent. The overall color palette is dominated by the blues and greens of the reef, with the white text providing a strong contrast.

10

**Achievements
, Lessons &
Next Steps**

10.1 Achievements



“doing things differently to get different outcomes”

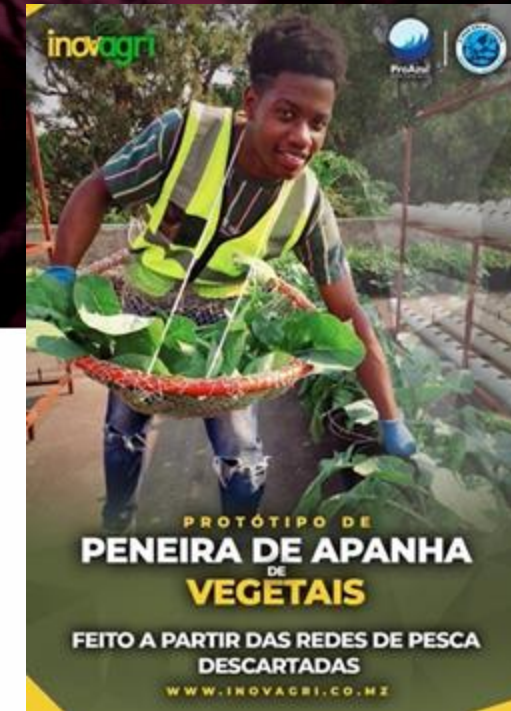
MozAzul’s program activities contributed to several longer-term achievements:

- **Strengthening of program’s government partners** national and international positioning and engagement:
 - The MozAzul brand and a digital platform that will continue to enable and strengthen public communication and engagement;
 - Increased engagement with a wider and younger audience, through current popular means (social media) and content (audio-visual), in close collaboration with the equally dynamic teams of these partners (both ProAzul and IIP).
- **Maintained an agile and iterative approach throughout all activities**, key features of any innovation process, not only as a response to the limitations of COVID-19, but also based on the feedback of the stakeholders and to ensure longevity of the outcomes.
- **The program’s activities were pioneer to connecting stakeholders**, in less formal, structured, and pocketed spaces, enabling public, dynamic, and multidisciplinary “spaces” (offline and online) for conversations to go beyond the surface and for stakeholders to form connections and synergies beyond the program. It led other initiatives to replicate these conversations as well.
- **It also contributed to Mozambican content and communities of practice**, shifting discourse from a global perspective to a more contextual one, where emphasis needs to be given to economic opportunities and impact, rather than solely environmental concerns, which is a paradigm important to other emerging markets.

10.2 Linkages and Networks

An important outcome of MozAzul was the creation of networks among key stakeholders, resulting from the concerted effort of all team members to bridge disciplinary gaps and link actors, which **will continue to impact the ecosystem, long after the end of the MozAzul Program**. In just one year and despite COVID restrictions, MozAzul Inovação managed to capture the following linkages:

- Collaboration with the Ministry of Land and Environment in their upcoming: Environmental Education Program “Ambiente em Movimento”, which consists of a national road-show, to which MozAzul will be able to contribute with existing content and link to potential partners.
- Mutual referral of key actors in the value-chain, with a development partner equally concerned with sustainability and circular economy, such as the Irish Embassy - through the co-financing of the nets challenge and their global Climate Launchpad initiative.
- BioMec, the human prosthetics from waste startup, and TOPACK, main plastic manufacturing company in the country, partnered for to use of TOPACK’s plastics transformation and molding machinery for human prosthetics.
- INOVAGRI, one of the nets challenge final candidates was invited by ProAzul to have their own booth at FACIM, largest industry and business fair in the country, show-casing some of the products prototyped in the nets challenge and their other products and services.



10.2 Linkages and Networks



- Mentes Sustentáveis, Yopipila and BeGirl, all speakers in MozAzul's Masterclasses, invited to participate in Regina Charumar's Geração Consciente – largest environmentally-dedicated program on TV.
- Mentes Sustentáveis offered a training and mentorship with Transições Ecológicas, a Brazilian organization working with zero waste solutions, connected through the Masterclass where they participated together.
- Mentes Sustentáveis prototyped the first fruits and veggies eco-bags made of recovered nets, in partnership with ProAzul.
- BioMec access to an international market, such as Angola, through the [Menos Lixo](#) Platform, a guest speaker in one of the MozAzul's Masterclasses; and, in 2021, awarded [Queen Elizabeth II's Commonwealth Points of Light](#).
- AMOR connected to UEM plastics research team, through the [nets challenge](#), to test using their pyrolysis material outputs in road building from plastics.
- Link between key plastics manufacturers, Coca-cola and IFC for potential investment in national recycling facilities.
- Both WhatsApp groups for the Nets Challenge and the Plastics Innovation Process continue functioning as a channel to share opportunities, knowledge, and contacts.



MS fruits and veggies eco-bags prototyped with ProAzul nets



10.3 Lessons & Opportunities



- Although the MozAzul team did make a concerted effort to promote the linkages mentioned, **investments in the team size, time, and budget allocation to the program, could have exponentially improved the attempts to bridge, connect and follow-up on all opportunities that emerged throughout the 1.5 years.** A few examples include:
 - Support Yopipila and Plataforma Makobo efforts in Cabo Delgado, to organize and promote communities beach clean-ups in exchange for food (Plataforma Makobo) and to use in construction materials for housing, schools and, more recently, shelters for the displaced. It would have tested an innovative business model and eco-biscates could have improved the process. ,
 - Follow-up on Lucan Studio, a studio that created a pilot animated kids series set in Mozambique with strong conservation messaging wrapped up in a female Mozambican super hero: [Isaura](#).
 - Parley for the Ocean´s demonstrated interest in working in Mozambique, possibly with ProAzul and nets challenge innovators.
 - Continue to push for a more concerted action on the nets collected in the country by diverse agencies, which continue to be sent to incineration when there are, at least, 15 innovators that would be interested in prototyping innovative local products.

10.3 Lessons & Opportunities



- As seen throughout all activities, a **dedicated communications team, budget, and link to MIMAIP's communication structure, would have exponentially raised reach and engagement numbers, nation-wide**, including to coastal and fishing communities, which were one of the communication's strategy target-group that was not as impacted by the online activities.
- The **innovation component could have benefited from the outputs of the analytical component** to inform the innovation activities and add to the popular content created; but the two were happening in parallel and COVID-19 caused significant delays.

10.4 What's Next?



- **Crescendo Azul II Conference:** MozAzul Pillar 2 will be able to showcase its findings, achievements and lessons at the upcoming blue economy national conference, organized by the GoM through MIMAIP, on November 18-19.
- **MozAzul Digital Platform Handover:** the team will continue to work closely PROAZUL's technical and communications team to ensure continuation of the digital repository.
- **Technical Assistance Program on Digital Fabrication for small-scale manufacturing and blue economy pilot in Mozambique:** the pilot program shall seek to open up new paths of innovation and adoption of digital tools, including through creating opportunities for innovative use and re-purposing of plastic materials to promote circularity. The program builds on findings coming out of MozAzul Innovation, and seeks to engage and continue collaborating with Mozambican blue economy innovators and entrepreneurs.

10.5 Useful Links



- MozAzul Newsletter 1 - <https://bit.ly/MozAzulNewsletter1ENG>
- Nets Innovation Challenge Brief (PT) - <https://bit.ly/MozAzulDesafioRedesPDF>
- MozAzul Digital Platform 1st sign-up - <https://bit.ly/RegistoMozAzul>
- Platform Launch Newsletter - <https://bit.ly/DiaOceanosNewsletter>
- Plastics Innovation Challenge Brief (PT) - <https://bit.ly/DesafioPlasticos>
- Digital Platform - <https://www.mozazul.org.mz/>
- Digital Platform Launch - https://www.facebook.com/watch/live/?ref=watch_permalink&v=316824233316392

Masterclasses Topics and Links:

- [Circular Economy](#)
- [Fishing Nets](#)
- [Plastic, Business and Innovation](#)
- [Life without Plastic](#)
- [Recycling](#)
- [Sustainable Design](#)

Teasers (produced by the team):

- [Circular Economy Teaser](#)
- [Ghost Nets Teaser](#)

Thank you!

