



**Afri-Plastics  
Challenge**

# Applicant Handbook



**New Ideas**  
Creating solutions

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# Section 1: Introduction

## Acronyms/glossary

**Challenge (also known as a challenge prize):**

A means of encouraging innovation by offering a reward to whoever can first or most effectively meet a defined issue or problem. Used as an incentive or 'inducement' to meet a specific challenge, rather than a reward for past achievements.

**Challenge pot:** The total amount of money available for distribution to applicants in a Challenge.

**Circular economy:** Alternative to the conventional linear economy. 'Circular' means that society keeps resources in use for as long as possible, extracts the maximum value from them whilst in use, then recovers and regenerates products and materials at the end of each service life.

**Downstream interventions:** Downstream interventions aim to prevent the leakage of plastic waste into the environment through improved waste management and recycling. We have identified several innovations across SSA, including business models that integrate waste collection and recycling plastics into value-added products. Some of the limitations of these initiatives include a lack of incentives and technologies to collect and recycle low value plastics, as well as operational challenges that pose difficulties for enterprises attempting to scale up.

**Human-centered design:** An innovative method of designing processes or tools in which people, and in particular end users, are placed in the center of the planning and the design by involving them directly at each step of the concept and product/service development.

**Macroplastics:** plastic fragments greater than 5mm long. These originate mainly from single use of durable plastics. Such materials tend to be

leaked to the terrestrial environment and oceans in countries with less efficient waste treatment infrastructure.

**Microplastics:** Defined as plastic particles smaller than 5 mm and greater than 1µm in diameter. Such small particles are much more pervasive than macroplastics and have more subtle routes to the environment.

**Marine plastics:** The main sources of marine plastic are land-based, from urban and storm runoff, sewer overflows, beach visitors, inadequate waste disposal and management, industrial activities, construction and illegal dumping. Ocean-based plastic originates mainly from the fishing industry, nautical activities and aquaculture.

**Plastic waste:** Any kind of plastic residual that has been discarded by its owner or is intended to, or required to be discarded.

**Prototype:** A first sample or early model of a product built to test a concept or process or function. A prototype aims to act as a demonstrator to be replicated or learned from.

**Small and medium-sized enterprises (SMEs):** Generally a small or medium-sized enterprise with fewer than 250 employees.

**Upstream interventions:** Upstream interventions seek to address the issue of plastic waste pollution at its root, by replacing plastic with alternative materials, or by eliminating the need for single-use packaging altogether through innovative business models. However, most of these actions are either in the development phase, or currently rolling out in markets of high-income countries: with several notable exceptions, including clean water refill systems.



The Afri-Plastics Challenge is a prize funded by the Canadian government; it is an element of the \$100-million Marine Litter Mitigation Fund announced by Prime Minister Trudeau at the G7 Leaders' Summit in Charlevoix in June 2018.

The Prize will help communities throughout Sub-Saharan Africa to prevent plastic waste from entering the marine environment by finding ways to minimize reliance on plastic, new ways of managing plastic waste, and/or new uses for plastic that has been discarded.

**The Prize is split into three strands:**

Strand 1	Strand 2	Strand 3
 <b>Scaling</b> Accelerating growth	 <b>New Ideas</b> Creating solutions	 <b>Campaigns</b> Promoting change
Focused on scaling existing innovations	Focused on starting up new innovations	Focused on community engagement and awareness raising

This handbook has been designed for applicants interested in applying to Strand 2: Creating Solutions. Applications open for Strand 2 on Wednesday 06 October 2021 and close on Wednesday 01 December 2021 at 12PM GMT (1PM WAT, 2PM SAST, 3PM EAT)

## Who's involved

### Funder

**The Government of Canada** is at the forefront of critical international efforts to protect the marine environment. As the country with the longest coastline in the world, Canada spearheaded the Ocean Plastics Charter under its G7 presidency in 2018. This Project is an element of the \$100-million Marine Litter Mitigation Fund announced by Prime Minister Trudeau at the G7 Leaders' Summit in Charlevoix in June 2018. Funding for the initiative comes from the International Assistance Priorities Fund.

### Delivery

**Nesta Challenges** exists to design and run challenge prizes that help solve pressing problems that lack solutions. We shine a spotlight where it matters and incentivise people to solve these issues. We are independent supporters of change to help communities thrive and inspire the best placed, most diverse groups of people around the world to take action. We support the boldest and bravest ideas to become real, and seed long term change to advance society and build a better future for everyone. We are part of the innovation foundation, Nesta.

### Research

**Proportion Global** is a leading international human-centered design agency that has over 11 years experience in conducting design research in low-income communities with the purpose to innovate for social impact. Proportion manages a global network of local researchers and strategic designers, supporting social enterprises, NGOs and corporates in innovating for social impact.

**Enviu** is a social venture building studio, with the mission to drive an economy that serves people and the planet. Enviu has the ambition to drive dysfunctional markets in Plastics, Textiles, Shipping and Food/Agriculture, towards becoming sustainable and inclusive. They do this by ideating, scouting and validating new, sustainable business models across the globe. Over the past 17 years, Enviu has co-founded 20 social ventures.

## Communications

**Africa Communications Media Group** was developed in response to a need for complete, culturally-attuned and effective communication solutions structured specifically for the complex and diverse African landscape. ACG is the first African-owned, pan-African agency handling communication for global clients in the African context with:

- Combined 40 years of experience in strategic communications.
- Culturally-attuned and research-driven: #WeKnowAfrica.
- Integrated communications specialists.

**Seven Consultancy** works with start-ups, scale-ups, global businesses and public sector organisations to enhance their reputation and help them grow through authentic and purposeful communications.

As PR specialists in tech, innovation and positive disruption – from fintech to healthtech, govtech to education – Seven’s highly experienced team develops creative campaigns to ensure genuine stand-out and impact-driven thought leadership that shifts agendas, and brings new brands to market through strong media and stakeholder engagement.

## Outreach

**Blue Globe Innovation** is an innovation consultancy specialising in grand challenges, recognition and inducement prizes, SME support, energy access, and fostering open innovation. They work with partners across the globe with the ultimate goal of engaging communities to explore ideas and create platforms for innovative solutions. With a global approach and a passion for the most cutting-edge initiatives, we help our clients tap into the power of the crowd. With over 20 years of programme and prize experience, Blue Globe Innovation is one of the leading organizations designing prizes around the world, and running outreach programmes across Africa.

**AfriLabs** is the largest Pan-African network of technology and innovation hubs in Africa with an ever-growing membership currently at 268 hubs with 298 centres in 112 cities across 49 African countries. With a combined community of over one million members, composed of accelerators, incubators, and start-ups, AfriLabs supports African innovation hubs and their communities of innovators to help build more sustainable and successful innovations and businesses that are relevant in today’s African and global economy.



## How to use the handbook

Welcome to the Afri-Plastics Challenge. This document, along with the [Frequently Asked Questions \(FAQs\)](#) and [Terms and Conditions](#), will provide you with all the information you need to enter the first strand of the challenge, including:

- The background and objectives of the prize.
- The prize structure and timeline.
- Who can apply and the application process.
- What is required to take part.

We strongly encourage all applicants to read the entire handbook along with the full [Terms and Conditions](#) before entering the Prize .

If you have read the handbook and the [Frequently Asked Questions](#) and have more questions, please contact the team at [afriplastics@challenges.org](mailto:afriplastics@challenges.org)



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# Section 2: The challenge prize

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## The problem

Over the past years, demand for plastic has substantially increased in Sub-Saharan Africa (SSA), and is projected to follow the same trajectory over the next decades, with one of the most popular estimates<sup>1</sup> indicating a growth of 375 percent in SSA and Middle East and North Africa (MENA) together, compared to a global average of 210 percent by 2060. Under this trend, SSA is expected to become the dominant region globally in terms of total waste generation.<sup>2</sup>

This is further exacerbated by high rates of waste mismanagement.<sup>3,4</sup> The average municipal solid waste collection rate in SSA is estimated to be 44 percent (although there is considerable variability between cities, with rates ranging from less than 20 percent to above 90 percent). According to UN Environment Programme (UNEP) forecasts, the average collection rate for the continent indicates an increase to 69 percent. While a significant proportion of mismanaged waste consists of wet organic waste, plastic waste represents 13 percent of the total, higher than the global average of 10 percent.<sup>5</sup>

While scaling plastic waste collection and recycling is crucial, it cannot solve the problem alone. The quantities of waste produced easily outpace the development of waste management systems, and recycling is still not an economically or technically viable option for several types of plastic.

Therefore, there is a strong need for upstream innovation – solutions that minimize the amounts of plastic produced in the first place, by providing viable alternatives that can be developed and adapted to reduce reliance on plastic or contribute to eliminating plastic usage.

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1. UNEP (2018). Africa Waste Management Outlook. United Nations Environment Programme, Nairobi, Kenya.
  2. UNEP (2018). Africa Waste Management Outlook. United Nations Environment Programme, Nairobi, Kenya.
  3. Ayeleru, Olusola Olaitan, Sisanda Dlova, Ojo Jeremiah Akinribide, Freeman Ntuli, Williams Kehinde Kupolati, Paula Facal Marina, Anton Blencowe, and Peter Apata Olubambi. "Challenges of Plastic Waste Generation and Management in Sub-Saharan Africa: A Review." *Waste Management* 110 (June 2020): 24–42.
  4. Godfrey, L., Tawfic Ahmed, M., Giday Gebremedhin, K., H.Y. Katima, J., Oelofse, S., Osibanjo, O., Henning Richter, U. and H. Yonli, A., 2021. Solid Waste Management in Africa: Governance Failure or Development Opportunity?.
  5. UNEP (2018). Africa Waste Management Outlook. United Nations Environment Programme, Nairobi, Kenya.



## Gender analysis/inclusion

The Afri-Plastics Challenge aims to reduce marine plastics in Sub-Saharan African countries by developing innovative solutions to plastic mismanagement in a way that promotes gender equality and empowerment of women and girls.

Women play an important role as both innovators and workers in the waste management sector, particularly in an informal capacity. This Prize is designed to help promote gender equality and tackle some of the barriers women currently face in the sector.

## Areas of opportunity for innovation in the problem area

Important work has already been done in the field of upstream innovation – for instance, according to the [Ellen MacArthur Foundation](#), relevant strategies can include direct elimination (removing packaging where it is not necessary), innovative elimination (using an alternative approach for the essential functions fulfilled by packaging), and reuse (ensuring that packaging is utilized multiple times, through refills and and/or return systems).

Therefore, in addition to thinking about new ways to reduce our reliance on plastics, it is crucial to design solutions that have the potential to generate real impact in the long term. This means that we need approaches that are convenient to use and well-adapted to local norms and culture, and that are affordable and accessible to people from a wide variety of backgrounds, including women and girls and low-income individuals. To do this, innovators should tap into the knowledge of their target communities, understand how to provide alternatives that will be adopted, and think of ways to bring a positive social contribution along the way.

### Strand 2: Creating Solutions



## Challenge Prize overview (methodology)

Challenge Prizes are a tried and tested method for supporting innovation. They offer a reward to those who can first or most effectively meet a defined challenge. They act as an incentive for meeting a specific challenge, rather than being a reward for past achievements. Prizes are also a means of throwing open a challenge beyond the 'usual suspects,' thus facilitating the engagement and participation of anyone who can solve the challenge.

## Challenge statement

The Afri-Plastics Challenge Strand 2: Creating Solutions is looking to achieve the following:

**We are seeking the creation of new or the development of early-stage products, technology and/or services to encourage the reduction or elimination of plastic usage across Sub-Saharan Africa. By the end of the Challenge successful community-centered products and services will have demonstrated a sustainable approach to reducing the reliance on plastic that also supports the empowerment of women and girls.**



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## Prize structure and timeline

An overview of the Strand 2 structure is below, outlining the key stages plus both the financial and non-financial support that will be provided to applicants.

**The Afri-Plastics Challenge Strand 2: Creating Solutions** focuses on finding new products, technology, and services. This strand consists of three distinct phases:



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### Initial entry

- ✓ **Who:** Interested applicants from across Sub-Saharan Africa (see later in this handbook for details on the eligibility criteria).
- ✓ **What:** submit an online application form (see Section 3 of this handbook for more details). Entries will open on 06 October 2021 and submissions must be received by the **deadline of 01 December 2021 at 12PM GMT (1PM WAT, 2PM SAST, 3PM EAT)**. Late entries will not be accepted.
- ✓ **When:** 06 October 2021 to 01 December 2021 12PM GMT.
- ✓ **Outcome:** Entries will be evaluated by independent assessors and judges against the criteria (see later in this handbook for details on the criteria). 25 Semi-Finalists will be selected to move forward in the Challenge.

### Semi-Finalist phase

- ✓ **Who:** 25 Semi-Finalists.
- ✓ **What:** Participation in a Digital Activation Workshop followed around 14 weeks of further capacity building support to help consolidate plans for developing solutions. Grants of £25,000 will be provided to the Semi-Finalists to support in the development and validation of their solutions.
- ✓ **When:** February 2022 to May 2022
- ✓ **Outcome:** At the end of this phase, the 25 Semi-Finalists will be required to submit a detailed development plan together with

a pitch video for evaluation by the judges against the criteria (see later in this handbook for details on the criteria). 10 Finalists will be selected to move forward in the Challenge.

### Finalist phase

- ✓ **Who:** 10 Finalists.
- ✓ **What:** Participation in a 7 month in-depth development strategy and implementation phase. During this phase Finalists will be provided with a range of capacity building support, based on individual need. They will also receive a grant of £75,000 to implement their development plans during this phase.
- ✓ **When:** End of June 2022 to end of January 2023.
- ✓ **Outcome:** At the end of this phase, the 10 Finalists will be required to submit a detailed development report and plan outlining progress against their development plans, together with a pitch video for evaluation by the judges against the criteria (see later in this handbook for more details on the criteria). 3 Winners will be selected.

### Winners

- ✓ **Who:** 3 winners.
- ✓ **What:** The three selected winners will receive the following grants:
  - 1st place: £750,000
  - 2nd place: £250,000
  - 3rd place: £100,000

## Non-financial support

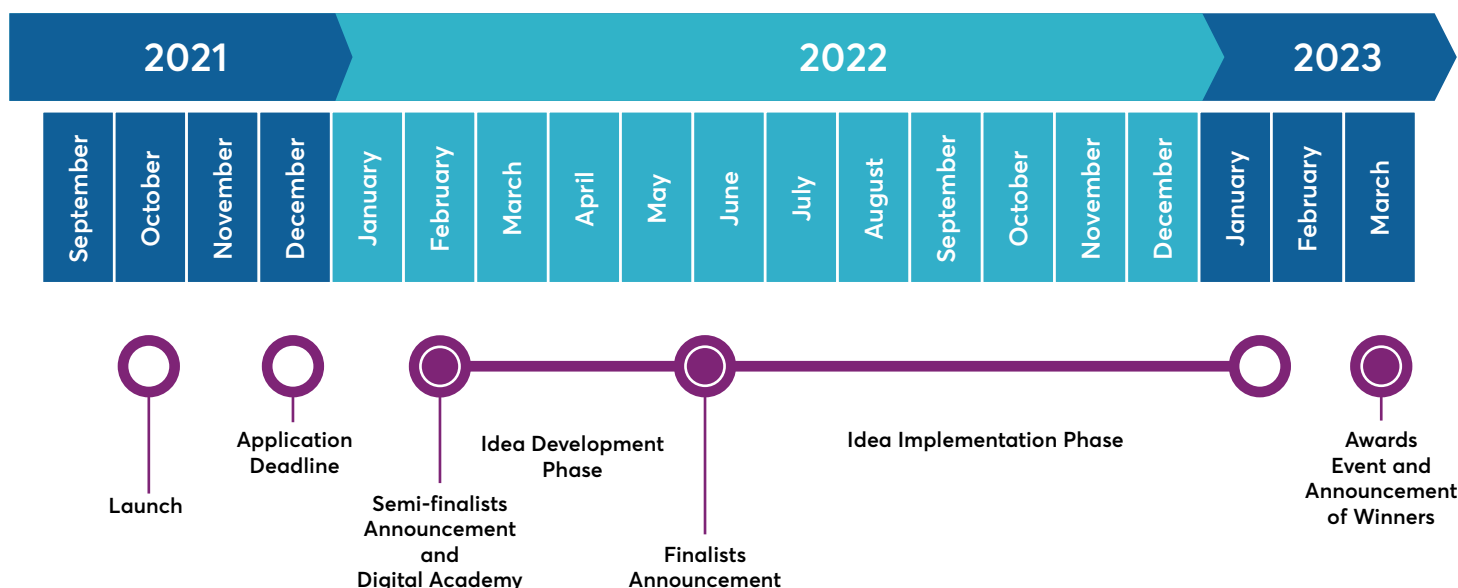
There will be some variation in the type and/or level of support provided to cater for different levels of experience, capabilities, and needs. However, there will be some core non-financial support that will be provided to all innovators.

In the entry period, support will focus on offering application support and resources to ensure equity and inclusion for underrepresented groups of innovators.

Other types of support that could be provided to innovators who are selected to participate in the Prize include:

- ✓ Gender Sensitivity Training.
- ✓ One-to-one mentoring.
- ✓ Technical assistance on the plastics value chain and the circular economy.
- ✓ Human-centered design (HCD), including stakeholder mapping and user testing.
- ✓ Impact and M&E training.
- ✓ Branding and communications.
- ✓ Leadership management.
- ✓ Partnerships and collaboration.
- ✓ Business development.
- ✓ Financial and legal support.
- ✓ Investment readiness.

The diagram below outlines the timeline for **Strand 2: Creating Solutions** phases of activity:





The table below outlines the key milestones and corresponding dates for Strand 2: Creating Solutions. **Applicants must ensure they are available to participate at every point in the Prize.**

Strand 2 milestones	Strand 2 dates
Launch (applications open)	Wednesday, 06 October 2021
Deadline for entries	Wednesday, 01 December 2021
Public announcement of Semi-Finalists	Thursday, 03 February 2022
Digital Academy	Monday, 21 February 2022 - Friday, 25 February 2022
Semi-Finalists Submission of Development Plans and Recorded Video Pitch	Tuesday, 24 May 2022
Public announcement Finalists	Thursday, 16 June 2022
In-depth development support and Implementation Support for Finalists	June 2022 to January 2023
Strand 2 Finalists Submit Development Reports and Plans	Wednesday, 01 February 2023
Awards Event and Public announcement of Winners	Wednesday, 22 March 2023



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## Eligibility and judging criteria

This section outlines the criteria by which entries will be assessed and judged throughout the challenge process. There is a set of eligibility criteria that outlines who can apply to the Prize.

In addition, there are five judging criteria against which eligible entries will be evaluated. The information provided below aims to help Applicants understand what the judges will be looking for when making their decisions.

### Eligibility criteria

- Applicants must have a new or early-stage idea that seeks to reduce or eliminate plastic usage across Sub-Saharan Africa.
- Ideas must be focused in Sub-Saharan Africa.
- Applicants can be formally constituted and operating in Sub-Saharan Africa as either a registered business or NGO, but applications from individuals and community groups will also be accepted.
- Applicants can be an individual, single entity (organisation or community group), an African partnership or an international partnership. For partnership applications, the nominated lead applicant must be operating in Sub-Saharan Africa.
- Applicants must own or be licensed to use relevant intellectual property included in their applications. If your application is proposing a new idea, then Nesta would expect that you would own all resulting intellectual property which may be able to be registered on a local basis if you become a successful participant in the Challenge. Nesta would not be able to give you specific legal advice on the protection or exploitation of intellectual property.

### Judging criteria

**Innovation:** Does the idea offer an innovative approach to reducing or eliminating plastic usage for communities in Sub-Saharan Africa?

- **We will be assessing:**
  - To what extent does the idea offer a new/adaptive way to encourage the reduction or elimination of plastics usage within a specific local context.
  - The potential uptake of the idea, including any initial ideas for user testing and piloting to future validation and business modelling.
  - The viability and growth potential of the idea.
  - The estimated types and quantities of plastic waste that could be reduced or prevented by the idea.



**Empowerment of women and girls: Does the idea aim to directly empower women and girls?****➤ We will be assessing:**

- The potential opportunities to engage women and girls in the idea (e.g. as employees, customers, users etc). And, to what extent these opportunities will demonstrate a credible impact for women and girls. Whether early-stage ideas that do not currently address this have an ambition to integrate it and how.
- How the idea will actively engage women and girls to understand their needs.
- To what extent the idea recognises the challenges of engaging women and girls (for example as employees, customers, users etc.) and in what ways it will actively address these challenges.

**Social impact: Does the idea aim to make a positive and meaningful difference to the community?****➤ We will be assessing:**

- How the idea will aim to make a positive and meaningful difference to the identified targeted end users within the community.
- How the idea will integrate end user needs and wider community needs.
- How the idea will consider any potential negative social impacts that it could have, what they could be, and how they could be addressed.

**Environmental impact: Does the idea make a positive impact on the environment?****➤ We will be assessing:**

- The idea's anticipated and intended positive impacts on the environment generally, and how they will also benefit the marine environment specifically.
- How the idea will consider any potential negative environmental impacts that it could have, what they could be, and how they could be addressed.
- To what extent the idea plans to adhere to any local regulations and policies.

**Capability:** Does the applicant have a relevant set of skills and experience to achieve success?

► **We will be assessing:**

- Whether the applicant has the capacity and wider resources to develop the idea up to the pilot stage and, if not, whether there is an immediate plan to gather and mobilise the capacity and resources to fill any current gaps.
- Whether the applicant has thought of any potential risks to developing their idea up to the pilot stage.
- Whether the applicant has assessed any potential opportunities for future partnerships.

## Assessment and judging process

After the **deadline on 01 December 2021 at 12PM GMT (1PM WAT, 2PM SAST, 3PM EAT)**, all entries for the Afri-Plastics Challenge Strand 2: Creating Solutions will be assessed against the eligibility and judging criteria by suitably qualified assessors. This information will be provided to the independent judging panel who will make recommendations which entries should receive funding and advance through the Challenge.

You can expect to hear about the status of your entry in February 2022. Information you provide in your entry may be shared with our partners (including our judges, and any due diligence providers) for the purpose of administering the Prize. For more information on how we use your data, please have a look at our [Privacy Policy](#) and the [Terms and Conditions](#) of the Prize.



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# Section 3: Making an application

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## Application process

All entries for the Afri-Plastics Challenge Strand 2: Creating Solutions must be submitted by **Wednesday 01 December 2021, 12PM GMT (1PM WAT, 2PM SAST, 3PM EAT)**, using the online application form (Submittable) available via the [Prize website](#). The organisation, leading any partnership or consortia will need to submit this form.

Before submitting your entry, please ensure that:

- You have read and understood the [Prize Terms and Conditions](#) and [Privacy Policy](#).
- Your application is aligned with challenge statement and assessment criteria.
- You meet the eligibility criteria.

The application form is available to download from this document to help you to develop and collaborate on your answers ahead of completing the online version. We are aiming to make sure the application process is as efficient and practical as possible, ensuring ease of access for organisations, in particular smaller companies. If you have any challenges with the submission process please email the team at [afriplastics@challenges.org](mailto:afriplastics@challenges.org) as soon as possible.

**All applications for the Afri-Plastics Challenge Strand 2: Creating Solutions must be submitted online via Submittable before the deadline of 01 December 2021 12PM GMT in order to be accepted as an entry. Late entries will not be accepted.**

[Click here for the application form](#)

## Reporting requirements

This information will **not** be used in the judges' decision-making.

This will include:

- Tracking some specific demographic information about your organisation
- Tracking some specific demographic information about your stakeholders (e.g. workers, beneficiaries, customers and end users) (including gender).

This will help us understand who the Prize is reaching and supporting. Application stage reporting:

- On average how many hours of work per week do women currently contribute towards your idea (product/service)?
- What is the current stage of development of your solution?
- If applying as an organisation, what percentage of your total workforce are women?

If selected to progress further reporting requirements will be shared.



Photography: unsplash.com

## Demographics of the idea team

This information will **not** be used in the judges' decision-making.

We would like to collect confidential demographic data as part of our commitment to attracting a diverse group of applicants and to help inform the evaluation of the programme. The form should take about one-to-two minutes of your time and is included as part of your submission form to the Challenge.

The form is confidential. None of the questions are mandatory. The information collected as part of this survey will have no impact on your application and is kept separate from the evaluation of your application.

## Application guidance

### Human-centered design (users needs)

It is important to remember that at the heart of the approach and implementation of your solution are the people and communities that you intend to serve.

It is important, therefore, to factor people into your planning in a meaningful way. Human centred design is an example of how you can do this.

Human centred design is about understanding and building empathy with the people that you will be involving and impacting. It gives you an opportunity to:

- Build rapport.
- Learn from communities about their day to day experiences and needs.
- Understand more directly how overheating in their homes/ place of work/education/ social spaces etc affects them.
- Understand what they think about what you intend to do in their community.
- Understand better how they might want to be engaged with what you are doing.
- Understand what some of the barriers might be to your intended ways of working.
- Better understand the type of difference you could be making to peoples lives.
- Help you consider how you can measure the impact of what you do.

## Examples/case studies

Below are some short case studies of organisations that contribute to minimizing reliance on plastic through upstream strategies, however, please note these are shared as helpful examples and should not be regarded as the only types of organisations that can apply to the prize.

The **Algramo** app allows users to purchase home care products at bulk prices. The products are delivered on an electric tricycle, and packaged in reusable containers.

**PadUp** is a producer of affordable reusable sanitary pads aimed at women and girls living in rural and low-income communities.

**Kecipir** is an e-commerce platform that serves fresh and organic produce from local farmers in Indonesia at affordable prices, plastic packaging-free.

**Mapu Preto** are speakers handmade of clay, produced locally by craftsmen and craftswomen drawing on traditional techniques.

**Koinpack** is a packaging system that allows customers to purchase cleaning products, body care and food in reusable containers, which they receive a cashback for upon return.

The **I-Drop Waterpod** is a water dispenser for grocery stores, providing access to affordable clean water.





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