



Innovate  
UK

# Unilever Kenya – Innovative Products from Millet (and Other High Fibre Grains)



# Challenge

This Open Innovation challenge, delivered by the Global Alliance Africa project, is supporting Unilever Kenya to find innovative ways to process millet (and other grains) to produce convenient, fortified consumer products. Due to this nutritious grains' physical variability, processing can be inefficient, and there are challenges in producing preferable formats.

Unilever Kenya is seeking innovative solutions beyond commonly used/existing technologies to produce millet food products with consumer appeal and zero waste, using circular economy principles. They are also open to wider use cases involving other grains.

# Unilever Kenya Background

Unilever is a global company driven by a **global purpose: to make sustainable living commonplace.**

There are 148,000 people across the world, with over 400 brand names in 190 countries, committed to this purpose. Unilever wants to do better for our planet and our society – not just less harm. They want to act on the social and environmental issues facing the world and to enhance people's lives with their products.

Unilever is also one of the leading suppliers of food, home, beauty & wellbeing and personal care products across East Africa for 80+ years. They are present in 5 East African countries: Kenya, Ethiopia, Uganda, Tanzania, and Rwanda, with 5 local factories manufacturing 81% of their products.

**A key goal is positive nutrition.** Everyone deserves access to good food. Unilever is working to create a healthier, more sustainable global food system.

# Challenge Information 1

Millet has been identified as a **Future Fifty food product** that will fare well with the effects of climate change. It is grown locally and may be used to produce a wide range of nutritious food products.

However due to the grain's physical variability, processing can be inefficient, leading to **challenges in producing formats that are preferable to consumers**. The high fibre content of millet can also make it hard to digest.

Innovative ways to improve the preparation and processing of millet are desired, which can replace or advance commonly used methods such as fermentation, decortication, milling, sieving, etc.

There is particular interest in ways to **enhance the availability of micronutrients** such as fibre, minerals, vitamins and phytochemicals.

# Challenge Information 2

Unilever's goal is **producing millet food products with consumer appeal and zero waste**, using circular economy principles. Solutions involving primary and secondary processing of millet (holistic solutions) will be preferred.

Millet has not featured in Unilever's portfolio before, and they have yet to find reliable technology to produce appealing, nutritious products (such as instant porridge, cookies, noodles, etc.). They are seeking to solve 2 specific pain points:

- It is difficult to process millet to **retain nutrition and maintain consistent quality**
- Finding a convenient product format for consumers with an **appealing taste and texture**

Applicants may focus on one or both of these issues. Key areas of interest are **cereal and snacking use cases**. They will consider adding diverse/additional ingredients as part of the final product offering.

# Challenge Information 3

Applicants will need to offer **credible information/technical data** for any manufacturing technology involved. This should include **end-to-end supply chain solutions**, or if they do not have a complete solution, then outlining where they fit into the supply chain.

The goal is to **unlock new millet production possibilities**, creating a new supply chain of this nutritious, Future Fifty product. These plant-based foods that can increase dietary nutritional value and reduce environmental impacts of the food supply, promoting sustainable global food systems.

# Target Audiences

Solutions are invited from, but not limited to, the following sectors:

- Agriculture
- Manufacturing
- Chemistry
- Biotechnology
- Design
- Health
- AI

# Functional Requirements

The identified solution must/should address the following:

- Solution must **apply to millet or other nutritious grains**
- Solution must support the production of **appealing consumer products**
- Preference for instant, convenient products
- Solution must suit cereal and/or snacking space
- Additional ingredients will be considered



# Technical Requirements

- Solution must not significantly reduce **inherent nutritional values**
- Solution must follow **circular economy principles**
- Solution may be delivered by external contractor or via in-house technology
- Please detail basic engineering requirements

# Operating Conditions

- Solution should operate in context of normal temperatures and humidity
- Solution should be applicable during normal working hours
- **Versatility and capacity to scale** are desirable
- Solution may be integrated at **any point in supply chain**

# Cost Requirement & Market Opportunity

- The solution's operation should have the potential to be **cost-effective in terms of ROI**
- Winning solution providers may become long-term partners, gaining access to Unilever supply chains
- Opportunities for external contractors and/or in-house technical arrangements
- The opportunity may later extend beyond millet/grains to other ingredients also

# Out of Scope

Proposed solutions may not be viable if they are:

- Commonly/previously used industrial processes
- Unsuitable for Millet or grain processing
- Unable to produce reliable quality outputs
- Unable to use Circular Economy thinking
- Unsuitable for Kenyan market conditions