



Global  
Alliance

Africa

[iuk.ktn-uk.org/programme/africa](http://iuk.ktn-uk.org/programme/africa) #KTNGlobalAllianceAfrica

# Kenya Airways Innovation Challenge - Information Session/Q&A -



# Agenda

09.00 BST / 11.00 EAT – Welcome and Housekeeping

09.10 BST / 11.10 EAT– Introduction to Global Alliance  
Africa and Open Innovation

09.20 BST / 11.20 EAT– Introduction to Kenya Airways

09.30 BST / 11.30 EAT– Kenya Airways Open Innovation  
challenge

10.00 BST / 12.00 EAT– Q&A

10.20 BST / 12.20 EAT– Next steps

10.30 BST / 12.30 EAT– Close

# Housekeeping

- The Information Session will last up to 1.5 hours
- Please use Zoom chat for submitting your questions
- This session will be recorded and shared later

# Innovate UK KTN

[www.ktn-uk.org](http://www.ktn-uk.org)



Global  
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# Positive Change Commitments

## Positive Change

We create diverse connections to drive positive change

### Deep Expertise

We have wide-ranging expertise and convene the expertise of others

### Powerful Connections

We drive powerful connections with businesses at the heart of what we do

### Future Shaping

We shape the innovation communities of the future

## Our People

We provide an exceptional place of work for our exceptional people

We will collaborate globally to create valuable international connections for innovators.

We will extend our activity beyond economic prosperity to also deliver sustainable societal & environmental benefit.



# OUR STRATEGIC PRIORITIES

## OUR NETWORK

**TRULY  
CROSS-CUTTING  
NETWORK**

**+40K  
UNIQUE  
ORGANISATIONS**

**90%  
SMES**

**+273K  
INNOVATORS  
IN THE UK**

**OVER 30  
COUNTRIES**

## SECTORS

We create diverse **connections** in the following sectors and areas of focus to drive **positive change**

- AgriFood
- Biotechnology
- Chemistry
- Creative Industries
- Design
- Digital
- Electronics
- Energy
- Geospatial
- Health
- Industrial Maths
- Infrastructure
- Manufacturing
- Materials
- Photonics
- Quantum
- Robotics and AI
- Security and Defence
- Sensors
- Space
- Transport
- Water

## CROSS-CUTTING AREAS

**GLOBAL  
INNOVATION**

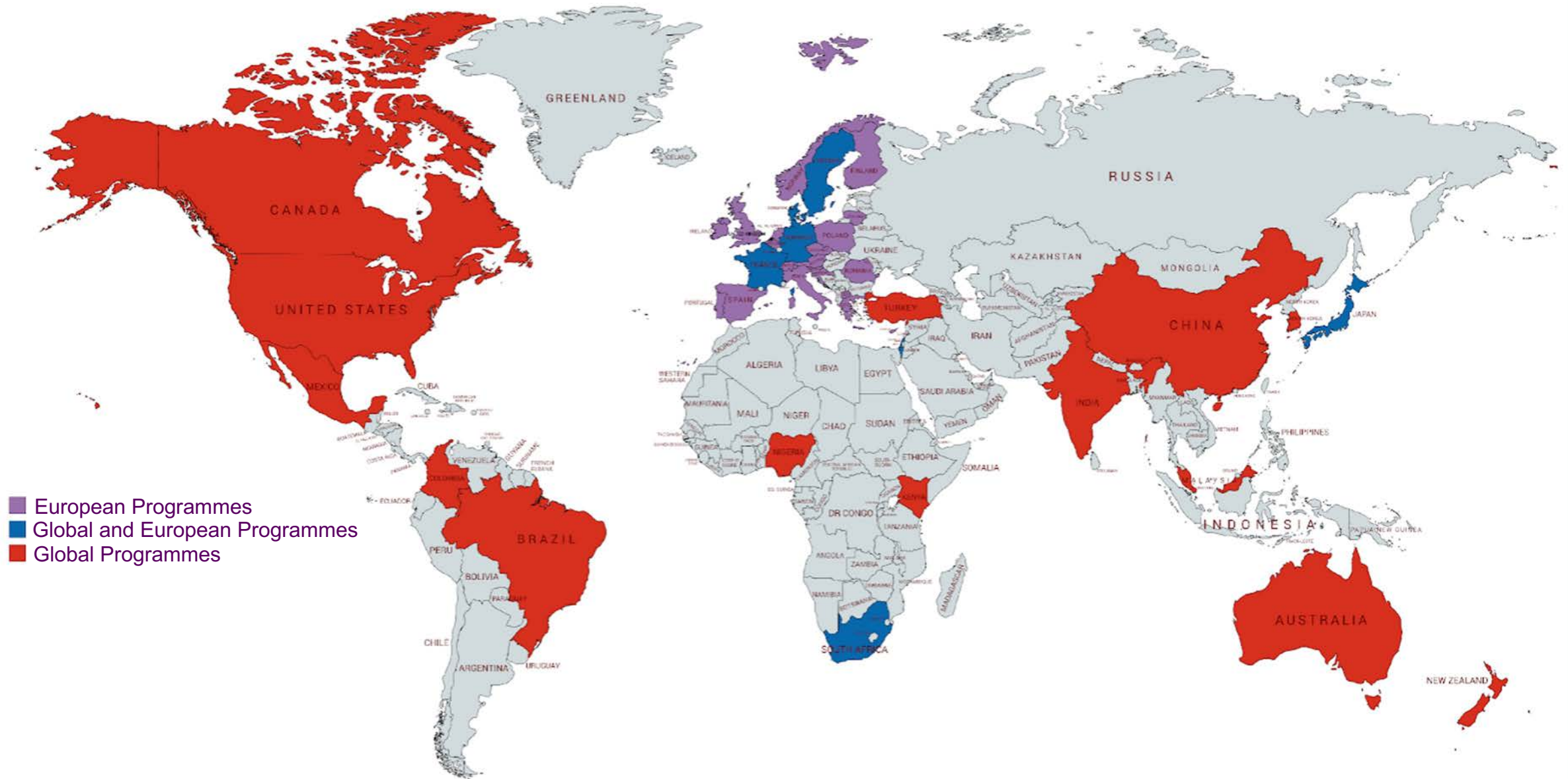
**DIVERSITY  
AND  
INCLUSION**

**PLACE**

**NET ZERO**

**ADOPTION  
AND  
DIFFUSION**

# Our Reach



# Impact to innovation



**66%**

Introduced by  
KTN go on to  
**collaborate**



**42%**

Reach outcomes  
**faster** by 1-2  
years



**60%**

Increased  
**investment** in  
R&D as a direct  
result from KTN  
engagement



**£100m**

Per year  
increased  
**investment** in  
R&D



# Building UK-Africa Partnership through...



## Local to Global

Open Innovation

Place-Based Innovation



## Access to Funding

Collaborative R&D Funding

Strengthening the Investment Pipeline



## Connected Innovation

Global Innovation Network

## Deep Expertise

\* Manufacturing & Materials | Transport & Mobility | AgriFood | Health | Climate Technologies | Digital Economy \*

\* Sector coverage subject to funding level & project priorities



# Open Innovation (OI) programme

# Local Empowerment Through Collaboration

Innovation Exchange is a KTN programme specially designed to introduce company with technical challenges to innovators who are already working on the solutions.

## Sector Technical Challenges

Large organisations, OEMS and Local Authorities have:

- Confidential challenges to solve with no time to explore markets
- Low exposure to companies outside the traditional industry supply chain

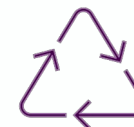
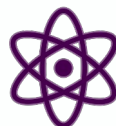
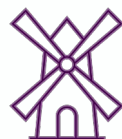


## Innovative solutions *from other sectors*

Solution providers find it difficult to:

- Open the right doors at a large org, OEM or local authority
- Prove the value proposition of products
- Understand customer's time constraints

## Challenge owners



# Previous Challenge Holders





# The iX process



## (1) Challenge translation

Identify and translate innovation challenges with KTN



## (2) Competition

Prepare and release competition to extended KTN and innovation networks



## (3) Solution selection

Filter and select responses by Solution Providers to the call



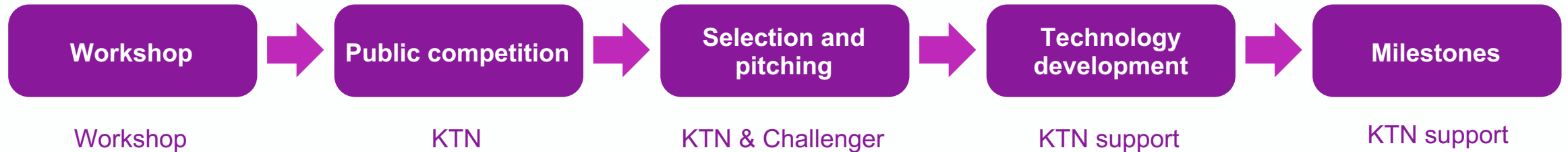
## (4) Relationship building

Engage with chosen companies and identify routes for technology development



## (5) Pilot project

Run collaborative pilot project with KTN seed funding



# Benefits for Challenge Holders

## Supply Chain Strengthening

It helps build a route for greater and more diverse innovation content in supply chains

## Quick and simple exposure to new technologies and markets

KTN delivers technology solutions from areas to which challenge holders do not normally have exposure (both in- and cross-sector)

## Time efficient

It requires little time commitment, with the bulk of the resource and time provided by GAA

## Expertise at no charge

We are fully funded by the UK Government and there is no charge to you for our professional services

# Benefits for Solution Providers

## **Immediate access to large business**

Successful applicants will be given the opportunity to pitch their solution to the Challenge Holder

## **Ongoing collaboration on project**

The selected Solution Provider/s will collaborate with the Challenge Holder and gain access to local facilities, eg: farmland to carry out trials for piloting the solution

## **Seed Funding provision**

Up to GBP 25,000 seed funding to work on the solution for this specific challenge in collaboration with the Challenge Holder

## **Pitching and development support**

Support from KTN and mentoring from our development partners throughout the challenge process

# Global Alliance Africa Open Innovation Challenges FY21/22

- **Kenya**

- **Flamingo Horticulture**

- False Codling Moth detection
    - False Codling Moth control

- **WEEE Centre**

- CRT recycling – new products
    - CRT recycling – energy reduction

- **South Africa**

- **Unilever**

- Plastic packaging reuse for online retail
    - Plastic packaging reuse for small traders



**ktn** | Global Alliance | Africa

KTN Global Alliance Africa

**Rapidly find Innovative Solutions to Circular Economy Challenges**

We are looking for Kenya, Nigeria and South Africa based companies wanting to find rapid innovative solutions to their industry challenges.

Deadline to apply: 14 September 2021

Connecting for Positive Change  
ktn-uk.org/programme/africa



**ktn** | Global Alliance | Africa

KTN Global Alliance Africa

**Rapidly find Innovative Solutions to AgriFood Challenges in Kenya**

We are looking for large\* Kenya-based companies from the AgriFood Sector wanting to find rapid innovative solutions to their industry challenges.

Deadline to apply: 30 August 2021.

Connecting for Positive Change  
ktn-uk.org/programme/africa



# Global Alliance Africa Open Innovation Challenges FY22/23

## • Kenya

- Airport navigation Web3 challenge
- Improved packaging for sea freight
- New processes for infection control

## • Nigeria

- Battery second life challenge
- Battery inventory system challenge
- Plastic recycling challenges

## • South Africa

- WTR drying challenge
- WTR beneficiation challenge
- Hazardous materials challenges

Funding Opportunity

Global Alliance Africa iX Challenges  
Innovative Solutions to  
Beneficiation of Water Treatment  
Residue

Opens | 16.11.22

Closes | 17.02.23



Hinckley Recycling  
Battery Innovation  
Challenges -  
Live Launch and Virtual Tour

29 Sep | 10:00-12:00 BST



# Introduction to Kenya Airways



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Africa





# *The Pride of Africa*



## Our Vision

Be the Pride of Africa,  
by inspiring our people  
and delighting our guests  
consistently.

## Our Purpose

Contributing to the sustainable  
development of Africa.

## Our Goals

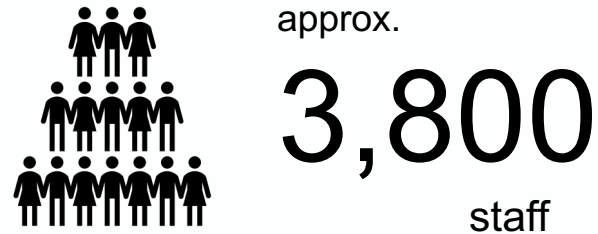
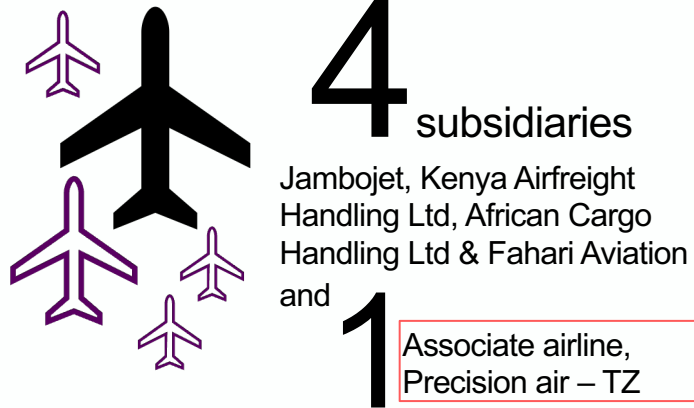
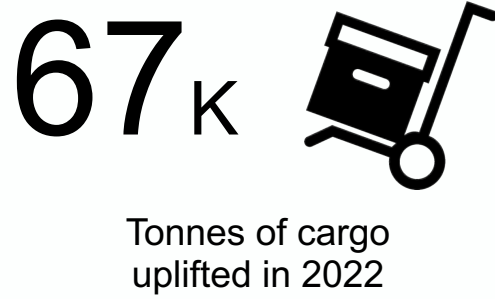
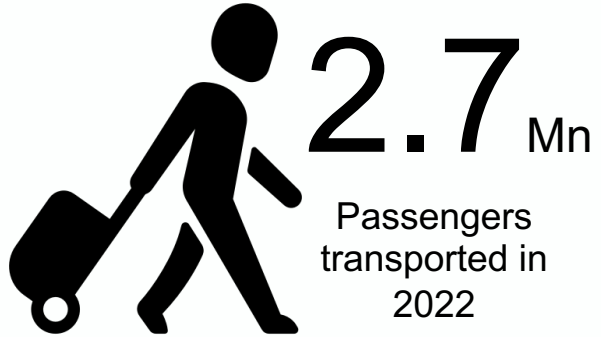
- To offer a standard of service that seeks to enhance guest experience.
- To offer the best value, enabled by deploying operational excellence.







# Who we are at a glance



# Our Contribution to the Kenyan Economy





# 257,000

## Catalytic tourism jobs

KQ catalyzes 17% of the 1.5 million jobs generated by tourism in Kenya

# 1.5 B USD

## Catalytic tourism GDP

In 2019, Kenya recorded 2.04Mn tourist arrivals. Of the 2.04 million tourists, 1.5 million used air transport with the lions' share going to KQ

# 60% + 70%

## Of all international and domestic air traffic through JKIA

KQ currently flies over 5 million people and ferries over 60,000 tonnes of cargo annually through JKIA

# 139,000

## Induced and indirect jobs

Outside of tourism, KQ has created 96,000 indirect jobs and 43,000 induced jobs across various sectors such as agriculture, e.g. horticulture exports

# 800 M USD

## Induced and indirect GDP

The aviation sector has indirectly generated an estimated USD 555 M and induced about USD345 M in revenue through the purchase of goods and services from local suppliers

# 5,000

## Direct jobs

Direct employment in KQ is ~3500 jobs, with the full aviation sector employing 15,000 people. These are jobs in the airlines, airport operators, airport on-site enterprises (restaurants and retail), aircraft manufacturers, and air navigation service providers

# 852 M USD

## Direct GDP contribution

KQ contributes to GDP via tax payments, passenger and cargo services and additional services offered through the airline





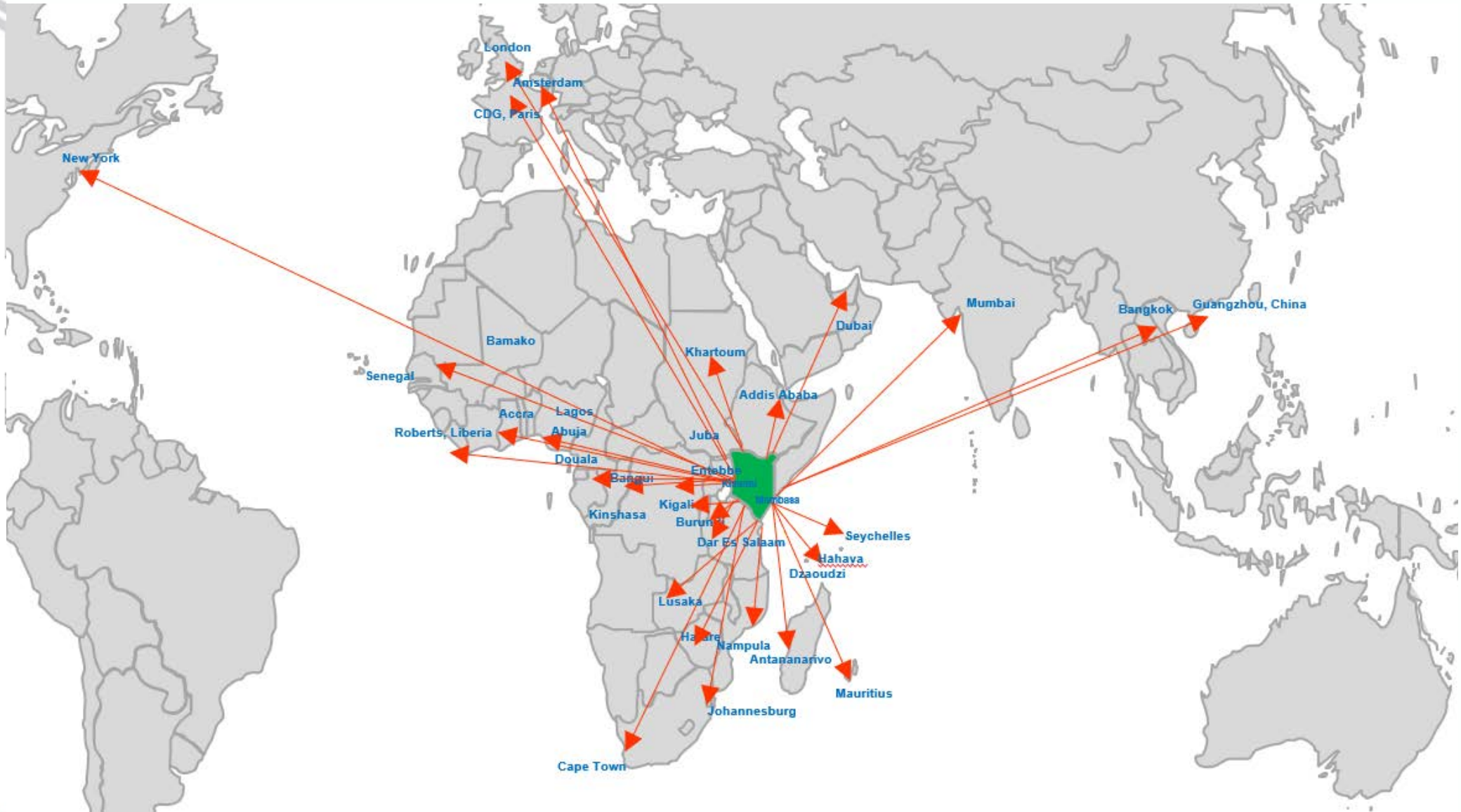
# Our Hub and Destinations



# *Jomo Kenyatta International Airport.*

Home to KQ, connecting Africa to the world and  
the world to Africa.





Proudly serving 42 destinations across 4 continents with 35 destinations in Africa



## Reaching new heights, thanks to you

Kenya Airways has been rewarded 4  
World Travel Awards, all because of you.



Africa's Leading Airline 2022



Africa's Leading Airline - Business Class 2022

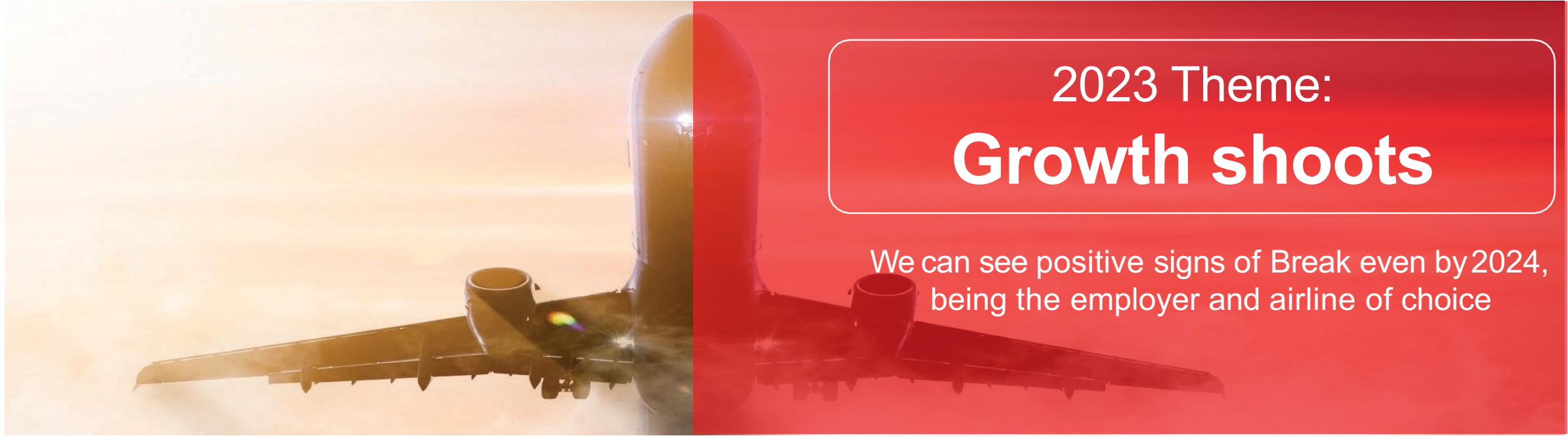


Africa's Leading Airline Brand 2022



Africa's Leading Inflight Magazine 2022





2023 Theme:  
**Growth shoots**

We can see positive signs of Break even by 2024,  
being the employer and airline of choice

### Focus Areas

**Customer  
Obsession**

**Financial  
Excellence**

**Employee  
Experience**

**Safety and  
Operational  
Excellence**



# *Other Products and Services*





# **Lounges.**

Relax, stay connected and be informed. Our new Terminal 1A lounges can accommodate over 350 people.



Our Skyteam partners also have access to the lounges.





 **Kenya Airways**  
**CARGO**

*connecting Africa to  
the world and the  
world to Africa.*





# ***Kenya Airways Technical***





THE PRIDE CENTRE

*Where stars  
become leaders.*





**Fahari  
Innovation  
Hub**

*Pushing Boundaries*

Launched the first aviation specific innovation hub in Africa in 2020 with focus on

**Ideation**



**Innovation  
Challenges**



**Research &  
Development**



**Venture  
Capital**





**Fahari Aviation Limited**  
A Kenya Airways UAS venture





**Grazie**

**Wado**

**Danke**

**Obrigado**

**Aabhar**

**Tack**

**Merci**

**Na som**

**Thank you**

**Ngiyabonga**

**Merkzi**

**Dankon**

**Choukrane**

**Nandri**

**Asante**

**Saha**

**Kiitos**

**Salamat**

**Akiba**

**Dankie**

**Gràcies**

**Mahalo**

**Khob chai**

**Shukriya**

**Dhanyavad**

**Shukran**

**Salamat**

**Danke**

**Doh je**



# Kenya Airways – Airport Accessibility Challenge



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# Challenge

## Airport Navigation in the Metaverse for Improved Accessibility

Anxious passengers and those who need assistance often find airports to be overwhelming or difficult to get around. As a friendly and caring organisation, Kenya Airways is interested in the ways next generation technologies could assist all their passengers to navigate the complex logistics of airports. They welcome ideas for innovative web, app, UI, AR, VR, XR applications that may assist elderly, anxious, less literate and disabled travellers. Mobile phone capability is envisaged for customer accessibility, possibly alongside other platforms and devices.



# Background

**Web3 and next generation technologies** provide the opportunity to deliver new levels of experience for travellers. It also allows Kenya Airways to express its brand essence of “Warm, Caring, Friendly, truly African”.

One way of doing this is to assist anxious and travellers who need assistance to navigate airports. These would **include the elderly, and physically and mentally disabled travellers**. These groups may have issues at both familiar airports, whose scale and complexity create anxiety, and unfamiliar airports, where access challenges or foreign languages create difficulties.

# Background

Kenya Airways would like to explore a **user journey allowing advance experience of various customer touchpoints** such as:

- Security – consider vaccination, documents needed, passport and visa requirements
- Gates – consider location, distance, facilities
- Aircraft – consider layout, seating, facilities
- Meals – consider menu, ingredients, allergens, nutrition
- In-flight entertainment – consider choice, mood, subtitles
- Languages – consider greetings, symbols, translations
- Baggage – consider tracking, security, reclaim, porters

For each touchpoint included in their solutions, applicants should **clearly define the customer benefit and business value** expected from their solution.

# Background

Audio, video and static imagery may be utilised. Dynamic avatars are preferable to typing and translation. Headsets and glasses may be useful, but there should also be a **'lite' version of the solution available that is accessible thorough personal mobile devices.**

**The decentralisation of technology gives power back to the users.** There is interest in harnessing its social impact utilising inventive UI (User Interface) and AR (Augmented Reality) technology, enabling peer-to-peer engagement helping each other, user-to-user.

**We envisage using Augmented Reality for simple wayfinding purposes.** This could be combined with QR codes for additional information. However all Web3 technologies will be considered.



# Background

**The basic wayfinding service should be provided free of charge.** However additional/added value services may be available for an additional fee.

On-board functionality would be useful, for example with anxious customers who are scared of heights, who require non-window seats. This could utilise the In-Flight Entertainment system also.

**Additional services could be made available** such as city guides, transport options and hotels. These could be provided with vetted, specialist partners who are able to support anxious, elderly or otherwise compromised travellers. Kenya Airways would like to take a synchronised approach to servicing their customers, showcasing the benefits of various elements of their value chain.

# Background

Kenya Airways are looking for **good use case opportunities that may be prototyped and tested with real customers.** The initial solution may be simple leading to more complex scenarios, eg:

- Initially wayfinding at Nairobi airport for elderly customers
- Eventually wayfinding at all Kenya Airways serviced airports for blind, deaf and wheelchair bound customers

They envisage being **informed by the work of organisations promoting assistive technologies** such as:

AT2030 - <https://at2030.org>

Global Disability Innovation Hub - <https://www.disabilityinnovation.com>

# Target Audiences

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

- Travel logistics
- Data capture
- Software development
- Gaming
- Hardware
- Design
- Assistive technology



# Functional Requirements

- Solutions must be **downloadable** via online platforms
- Basic solutions must be **cost free to consumers** (though additional services may be chargeable)
- Ideally solutions should be available **via personal mobile phones**, though other platforms and devices will be considered also.
- As a minimum, solutions should be **viable with Android devices**
- Solutions that benefit customers with **physical, mental and social obstacles** to overcome will be most desirable

# Technical Requirements

- Solution may be integrated with Kenya Airway's existing systems or may be a separate system alongside it.
- Please detail any **new infrastructure requirements** for this solution
- Solution must be applicable in **modular format**, so it may be scaled progressively
- Solution should be able to work across **a wide range of devices**
- Solution should **not be data intensive** for customers
- Solutions must **operate securely** with data privacy aligned with existing Kenya Airways policies
- **Technological maturity**: preference for late stage solutions (TRL 7+) that have passed proof of concept stage, are in pilot, ready to commercialize or commercialized. However lower TRL ideas will also be considered.
- **Blockchain builds** may be included if useful

# Operating Conditions

- Ideally the solution should be viable for **online and offline** usage
- Ideally the solution should be available for **onboard and offboard** usage
- Solution should operate in **normal temperatures and light levels**
- **24/7 operation to cover all time zones**



# Application Information



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# Deployment Timescale

- 6 March 2023 – Competition Launch
- 04 April 2023 – Information session/Q&A
- **18 April 2023 – Deadline for applications**
- May 2023 – Selection and notification of finalists
- June 2023 – Pitch day & Selection of Winner
- June/July 2023 – Collaboration Discussions
- July 2023 – Pilot programme activated

# Eligibility

## Applicants must be:

- **Established** businesses, start-ups, SMEs, individual entrepreneurs or academics.
- **Collaborative** solutions (Business to Business B2B and B2R&D) are valid applications. If collaborative solutions are being submitted, a single lead organisation (industrial or academic partner) needs to register the application.
- **Africa-based entrants, UK-based entrants and those from RoW are invited to apply**



# Assessment

## Applications will be assessed on:

- **Relevance** to the topic
- **Innovative** nature of the subject
- **Coherence** of the proposed business model
- **Feasibility**/economic viability
- **Development potential**
- **Maturity** of project/solution
- **Ease of implementation**/ability to launch project quickly
- **Suitability** for the African Market

# Rewards & Benefits

- Up to **GBP 25,000** seed funding (Subject to T&C)
- Opportunity to pitch your solution and **collaboration/partnership** with Kenya Airways
- **Access to materials** and Kenya Airways facilities
- **Technical support** from Kenya Airways team
- **Mentorship programme** facilitated by IUK KTN
- **Sector expertise** from IUK KTN
- **Support in the development** of a prototype or pilot
- Invitation to attend or present at IUK KTN events
- **Investor** introductions (if investment is required)

# Q&A Session



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# Thank you.



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**Innovate UK**  
KTN