



# Frontiers symposium

**Catalysing global healthcare**  
Innovations and strategies for  
scalable impact

**5 to 7 February 2025**  
**Nairobi, Kenya**



## Introduction to Frontiers

The Royal Academy of Engineering's Frontiers programme connects and empowers researchers, innovators and practitioners from the UK and around the world to work together on new ways to solve complex global challenges.

Through themed symposia, the programme brings together around 70 outstanding early- and mid-career professionals from academia, industry, NGOs and the public sector. These multidisciplinary workshops encourage new ways of thinking and foster cross-sector collaboration.

Each symposium is designed to spark innovative ideas and build lasting partnerships among the next generation of engineering leaders. To support these collaborations, seed funding grants of up to £20,000 are awarded for projects that deliver real impact in communities and strengthen partnerships.





# Contents

Symposium overview

**Frontiers insights:  
catalysing global healthcare** 5

Session one

**Scaling innovation and  
strategies for a diverse  
healthcare landscape** 8

Session two

**Innovative funding models  
for healthcare scale-up** 13

Session three 18

**Collaborative ecosystems:  
partnerships for catalysing  
healthcare** 18

**Keynote speeches** 24

**External activity** 26

**Insight session** 28

**Closing remarks** 30

## Symposium

Delegates met for three sessions over two and a half days, which were interspersed with networking opportunities, an external visit to the United Nations offices in Nairobi, the British High Commission Residence reception, and dinners. The symposium took place at Strathmore University campus, in partnership with the University and Jaza Rift.

# Symposium partners

## Strathmore University

Strathmore University is a chartered university located in Nairobi, Kenya. Their mission is to provide all-round quality education in an atmosphere of freedom and responsibility; excellence in teaching, research and scholarship; ethical and social development; and service to society.

## Jaza Rift

Jaza Rift is a venture capital and asset management advisory company focused on healthcare innovations and inventions in Africa. It seeks to catalyse positive change in healthcare in Africa through targeted investments, a network of advisors and coaches, and a comprehensive scaling methodology for digital health, medtech, and biotech innovations and inventions.



Participants at the Strathmore University campus



# Frontiers insights: catalysing global healthcare

Organised in partnership with Strathmore University and Jaza Rift, the 25<sup>th</sup> Frontiers event took place from 5 to 7 February 2025 at Strathmore University in Nairobi, Kenya. Chaired by Professor Alicia El Haj FREng, and Eng Dr Julius Butime, the symposium brought together participants from diverse disciplines across 25 countries, providing a platform for leading experts in healthcare, technology, policy, and investment to highlight the importance of interdisciplinary collaboration, the need to scale healthcare innovations and the urgency of addressing global challenges such as pandemics and healthcare accessibility.

In her opening remarks, Professor El Haj underscored the vital role of interdisciplinary collaboration in advancing healthcare innovations, highlighting how combining different perspectives leads to more effective problem-solving. “While personal ambition is valuable, collective progress will happen faster when individuals work together as a team,” she said.

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**“While personal ambition is valuable, collective progress will happen faster when individuals work together as a team.”**

**Professor El Haj**

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Dr Butime talked of the growing need to empower young professionals by providing them with opportunities to engage in discussions that address sector-wide challenges. He encouraged participants at the symposium to take the time to learn about the expertise and experiences of those around them, as building strategic networks is key to finding impactful solutions. He noted that “no one can solve complex problems alone”.

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**“No one can solve complex problems alone.”**

**Eng Dr Butime**

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At the beginning of the symposium, during an introductory session, participants introduced themselves, their expertise and expectations from the symposium. Coming from twenty five different countries from across the globe, this served as an effective networking session, enabling them to familiarise themselves with one another and establish a foundation for possible collaboration in new projects.





Throughout the symposium, discussions centred around three key sub-themes:

- Scaling innovation and strategies for a diverse healthcare landscape
- Innovative funding models for healthcare scale-up
- Collaborative ecosystems: partnerships for healthcare

This report summarises the key findings from the session discussions with the following overarching insights across the sub-themes:

- **Interdisciplinarity and collaboration will define success** Innovations in healthcare require experts from various fields, expertise and geographies to collaborate, adapting and improving existing solutions, in order to realise meaningful, sustainable, and scalable innovations.

- **People-centred approach is what works** End users should be at the heart of innovations. Innovators need to understand the people and communities they are working for to innovate more effectively for them.
- **Real-world impact** Innovations should lead to practical applications that provide direct benefits to society.
- **Simplicity** Overcomplicated solutions can hinder progress and alienate those for whom it was intended. Simple, scalable solutions are more effective and easier to adapt.





## Symposium chairs



### **Professor Alicia El Haj FREng – University of Birmingham**

Professor El Haj is an academic innovator translating novel cell-based therapies to the clinic. She is the founder of a spin out company MICA Biosystems Ltd involved in translating innovative regenerative therapies. Professor El Haj was awarded a Royal Society Merit Award and is a Fellow of the Academy. She was awarded the Midlands Women in Tech Award, the IOM3 Chapman medal for major contribution towards translation of biomedical materials into healthcare and the TERMIS Career Achievement Award for discovery and translation of regenerative medicine into the clinic.



### **Eng. Dr Julius Butime – Strathmore University**

Eng. Dr Butime is an electrical engineer with over 16 years' experience in engineering education focusing on areas such as spectrum management, computer vision, wireless communication, and curriculum development. Dr Butime has been engaged in research in engineering training, data protection policy development, renewable energy business incubation and implementation of the SDGs in engineering practice. Dr Butime is interested in fostering partnerships across the public, private and NGO sectors in international engineering practice and training.

# Scaling innovation and strategies for a diverse healthcare landscape

## Session chair presentations

1. **Artificial intelligence and healthcare innovations: challenges and opportunities**

**Dr Huiqi Yvonne Lu**, University of Oxford

2. **Scaling healthcare innovations in Africa: the GrowthPod opportunity**

**Sewu-Steve Tawia**, Jaza Rfit

3. **Management of traumatic bone injuries in conflict settings**

**Dr Rami Mhanna**,  
American University of Beirut

## Key takeaways

- For AI to be a catalyst for innovation, equity, and ethical integrity, strong regulatory frameworks must guide its implementation, rigorous evaluation, and validation of AI applications in healthcare. Clear guidelines must also be established to ensure ethical AI deployment.
- Injuries in conflict zones are complex and require specialised treatment, including external fixators and bone grafts. There is, therefore, an urgent need for affordable, effective, and locally produced bone repair solutions in these settings.
- Regulatory harmonisation is key for creating a unified innovation framework, alongside talent development through the creation of healthcare education hubs, leveraging public-private partnerships to invest in infrastructure
- Cultural integration should be considered to ensure innovations are effectively adapted to local contexts.

Healthcare innovations, particularly AI, have the potential to revolutionise patient care and efficiency. However, challenges like scalability, sustainability, and ethical concerns must be addressed. Additionally, treating traumatic bone injuries in conflict zones underscores the need for affordable, locally produced solutions to improve care in resource-limited settings. Solutions discussed included leveraging tech-driven innovations like drones for medical supply delivery, prioritising local capacity-building, and implementing AI-enabled tools for mental health services.





## AI and healthcare innovations: challenges and opportunities

### Dr Huiqi Yvonne Lu

Dr Huiqi Yvonne Lu's presentation emphasised AI's potential to revolutionise patient care and healthcare efficiency, including:

- Patient monitoring – using AI-driven technologies for continuous tracking of patient vitals.
- Physiological and psychological modelling – AI's role in predicting health conditions based on patient data.
- Robotics in healthcare – enhancing surgical precision and automating routine medical tasks.

Further, she discussed global challenges in implementing AI-driven healthcare solutions, particularly in Africa, the Americas, and Southeast Asia, which include:

- Scalability – difficulty in expanding AI technologies across different healthcare infrastructures.
- Sustainability – ensuring AI systems remain cost-effective and operational in the long term.
- Safety and trust – addressing ethical concerns and mitigating risks related to AI decision-making in healthcare settings.

To overcome these barriers, Dr Lu proposed developing adaptable and robust AI technologies that can be integrated into diverse healthcare ecosystems while ensuring equitable access.

She emphasised the importance of AI governance, referencing international regulatory frameworks such as the World Health Organization (WHO) and International Organization for Standardization (ISO) to ensure AI reliability and safety. She underscored the need for stringent evaluation and validation processes to maintain AI's trustworthiness and accountability in medical settings.

In her concluding remarks, Dr Lu emphasised the necessity of aligning AI innovation with sustainable development goals (SDGs) to ensure healthcare advancements are equitable and accessible worldwide. She envisions AI as a catalyst for innovation, equity, and ethical integrity, empowering countries to implement AI-driven healthcare solutions in a sustainable and impactful way.



Dr Lu working with participants during a group activity

## Scaling healthcare innovations in Africa: the GrowthPod opportunity

### Sewu-Steve Tawia

Sewu-Steve Tawia explored how healthcare innovations in Africa can scale effectively through the GrowthPod initiative. He highlighted the challenges posed by Africa's diverse healthcare landscape, where, with fifty-four countries, each have distinct regulatory, corporate, and tax frameworks. Unlike the more uniform healthcare systems in the US, Europe or China, African healthcare scale-ups face unique barriers that slow growth and expansion. These include regulatory complexity, talent shortage, fragmented markets, and infrastructure gaps. Others include economic and political instability, cross border payment challenges and cultural and social barriers.

To address these challenges, Tawia emphasised the need for a collaborative approach that brings together local governments, the private sector and international organisations. GrowthPod provides practical support for scaling healthcare innovations, including:

- Local landing offices – helping companies establish a presence in multiple African markets.
- Market access support – connecting businesses with potential customers and stakeholders.
- Regulatory advisory services – guiding businesses through complex legal and compliance requirements.

- Mentorship and support networks – offering expertise and strategic advice to scale effectively.
- Funding access – facilitating investment opportunities for healthcare innovators.

Lastly, he highlighted the importance of events such as the Frontiers symposium in fostering partnerships and driving progress in Africa's healthcare sector., and how collective efforts can enhance healthcare scalability.



Sewu-Steve Tawia



## Management of traumatic bone injuries in conflict settings

### Dr Rami Mhanna

Dr Rami Mhanna's presentation on the challenges of managing traumatic bone injuries in conflict zones highlighted the widespread occurrence of such injuries, resource limitations in war-affected areas, and the complexities of providing effective treatment. The lack of timely trauma care often leads to severe infections and preventable fatalities, further exacerbating the crisis.

Traumatic bone injuries often require specialised interventions, including external fixators and bone grafts. In cases of critical-sized bone defects, surgical procedures are necessary, with autologous bone grafts — using the patient's own bone — being the preferred method. However, the availability of donor tissue is limited, prompting researchers to explore synthetic alternatives such as calcium phosphates and bioactive glasses.

To address these challenges, Mhanna discussed emerging technologies that incorporate hydrogels with bioactive scaffolds to promote bone healing. While these scaffolds show promise in stimulating bone regeneration, they face significant challenges, particularly in encouraging vascularisation, which is crucial for healing larger bone defects.

In addition to these biological and medical challenges, conflict zones suffer from systemic issues such as the need for decentralised and portable treatment solutions, the production of medical materials locally, and a shortage of trained professionals. Delays in the approval of new

medical solutions further complicate the situation, making it even more difficult to provide timely and effective treatment.

His presentation underscored the urgent need for affordable, efficient, and locally produced bone repair solutions in war-affected areas.



Dr Rami Mhanna

# Group activity

Following the presentations, participants discussed the challenges and opportunities in scaling healthcare innovations. They also reflected on and identified key questions related to AI and healthcare, focusing on regulatory, technological, and logistical barriers.

After discussions the groups presented a few solutions including:

- Leverage tech-driven innovations such as drones for medical supply delivery and on-the-ground manufacturing in regions affected by prolonged conflict.
- Prioritise training, capacity-building, and community-centred approaches to empower local healthcare providers with the necessary skills and tools for accurate diagnosis
- Tailor solutions to the unique context of each region, leveraging local knowledge and resources to ensure relevance and effectiveness
- Implement AI-enabled diagnosis, treatment tracking, and unstructured supplementary service data (USSD) mobile solutions to make mental health services more accessible and culturally sensitive
- Foster government collaboration, regulatory harmonisation, and AI-driven certification platforms to streamline the approval process and encourage local manufacturing





# Innovative funding models for healthcare scale-up

## Session chair presentations

1. **Why is so much start-up funding going after such a small set of the same projects?**

**Dr Watu Wamae**, University of Oxford

2. **Sustainable healthcare innovation and investment readiness: from the perspective of Philips Foundation**

**Dr Bahaa Eddine Sarroukh**,  
Philips Foundation

3. **Scaling innovations in the public sector**

**Dr Josea Rono**, E&K Consulting firm

## Key takeaways

- Innovations should be designed based on government needs and priorities. Innovators should embrace co-creating with government and public entities, to enhance adoption and sustainability.
- Becoming a 'grantpreneur', or over-relying on grants, hinders scalability and long-term investment appeal.
- AI, data infrastructure, and digital tools enhance investment readiness and healthcare accessibility. Digital solutions optimise healthcare delivery and expand reach.
- Maintain a strong end-user focus. Start with understanding the needs of low- and middle-income populations.
- Combining funding sources improves healthcare startups' access to capital.



How much time should innovators spend seeking grants and funding? Is relying on grants a sustainable model for scaling businesses? For start-ups in low- to middle-income economies, how can they balance the need for a sustainable business model with the financial stability required to keep operations running? One key strategy is to align innovations with government priorities, as the government is often the largest client for healthcare innovations. Pursuing active collaboration with public entities can bring innovations closer to adoption and ensure the long-term sustainability of the business.

## Why is so much start-up funding going after such a small set of the same projects?

### Dr Watu Wamae

During her presentation, Dr Wamae addressed the critical challenges of funding healthcare innovation, particularly for early-stage ventures. She spoke of a significant funding gap, pointing out that 99% of available funding is directed toward later-stage ventures, leaving early-stage innovations vulnerable to failure — a phenomenon often referred to as the Valley of Death.

Traditional funding models overwhelmingly favoured established ventures while neglecting the crucial need for early-stage capital. This, she explained, creates a systemic barrier that prevents promising healthcare solutions from advancing beyond the conceptual phase.

She also identified what she termed as “Grantpreneur syndrome”, where startups become overly dependent on grants rather than focusing on developing sustainable, scalable business models. This reliance on grant funding, while providing short-term financial relief, can ultimately hinder a company’s ability to attract long-term investment and achieve widespread impact.

To address these challenges, Dr Wamae advocated for “patient capital”, a form of impact-driven investment that prioritises long-term healthcare improvements over immediate financial returns. She called for a shift toward blended finance models, impact investing, and public-private partnerships as viable solutions for supporting early-stage healthcare innovations.

In addition, she emphasised the critical role of data infrastructure, AI, and digital technologies in enhancing the viability and scalability of healthcare investments. By leveraging these tools, innovators can strengthen their investment readiness, improve healthcare delivery efficiency, and increase accessibility to underserved populations.

There is an urgent need to rethink funding approaches in healthcare innovation, ensuring that promising early-stage solutions receive the necessary support to scale and achieve sustainable, long-term impact.



Dr Watu Wamae



## Sustainable healthcare innovation and investment readiness: from the perspective of Philips Foundation

### Dr Bahaa Eddine Sarroukh

Dr Sarroukh focused on sustainable healthcare investment, emphasising end-user needs in low- and middle-income markets. He introduced the Philips Foundation Impact Investments, which supports healthcare ventures through long-term funding and partnerships to strengthen local ecosystems.

He gave three examples of successful projects they had funded, including Access Afya, a digital healthcare platform that improved affordability of healthcare services, iMedrix, a mobile, cloud-connected device which enables real-time cardiac monitoring in remote areas, and Healthy Entrepreneurs, which trains community health workers to deliver medical services.

A key component of the presentation was the introduction of a multi-level maturity model designed to assess the scalability of healthcare ventures. This framework evaluates crucial aspects such as team capabilities, value proposition, market validation, and exit strategies, ensuring that ventures are well-positioned for sustainable growth.

He stressed the role of blended financing, technology-driven solutions, and strong regulatory frameworks in ensuring sustainable healthcare innovation. His presentation highlighted the need for an integrated approach that combines funding, innovation, and policy to drive impact in underserved regions.



Dr Bahaa Eddine Sarroukh

## Scaling innovations in the public sector

### Dr Josea Rono

Dr Rono started the presentation by emphasising that scaling healthcare innovations in the public sector requires a demand-driven approach, ensuring alignment with government priorities and healthcare system needs. He encouraged participants to shift their approach by first engaging stakeholders — particularly government bodies — to understand pressing challenges, spending priorities, and critical healthcare gaps before developing solutions.

He introduced the Million Lives Collective (MLC), a global initiative dedicated to scaling proven healthcare innovations. MLC supports innovators by highlighting impactful solutions, connecting them with investors and collaborators, and sharing key insights on the scaling process.

He highlighted the public sector scaling checklist tool. This structured framework helps innovators navigate public sector adoption by identifying government demands, aligning solutions with public priorities, addressing regulatory and policy requirements, and securing funding and policy support for seamless healthcare integration.

Public-private partnerships are important in achieving large-scale healthcare innovation. Three essential factors for public sector investment readiness include:

- Government co-creation and ownership – engaging policymakers early to enhance adoption and long-term sustainability.
- Regulatory compliance – ensuring legal and policy adherence to build trust and credibility.
- A clear go-to-market strategy – developing well-defined implementation pathways for widespread adoption.



Dr Josea Rono



# Group activity

After the presentations participants were divided into groups to explore critical challenges and possible solutions in scaling and funding healthcare innovations. The group discussions focused on overcoming barriers to innovation, securing funding, and ensuring investment readiness. Below are the key takeaways:

## Engagement and institutionalisation:

- Establish structured platforms for innovators to pitch to the government.
- Engage decision-makers early in the process.
- Strengthen public-private partnerships (PPPs) to pilot innovations.
- Secure commitments through Memorandums of Understanding (MOUs).
- Advocate for policy frameworks that support innovation.

## Investment readiness and healthcare innovation:

- Ensure affordability without compromising quality.
- Design cost-effective, scalable, and easy-to-use solutions.
- Develop integrated digital systems to improve efficiency.
- Address gaps in data structures for better decision-making

## Funding and venture Building:

- Use human-centred design to create demand-driven solutions.
- Build multisectoral teams with diverse expertise.
- Provide clear evidence of social impact to attract investors.
- Leverage alternative financing methods (e.g., purchase orders as collateral, micro-credit models).



# Collaborative ecosystems: partnerships for catalysing healthcare

## Session chair presentations

### 1. Innovating global healthcare: through technology and collaboration

**Dr Evona Teh**, EV Medical Consulting /  
Imperial College London

### 2. Reflections on African medtech innovation and commercialisation,

**Wambui Gachiengo Nyabero**,  
MEDevice Africa

### 3. Entrepreneurship in global healthcare: leveraging expertise for scalable impact,

**Maryanne Muriuki**, Kenyatta University

## Key takeaways

- Successful healthcare innovation requires understanding economic, technological, and social influences.
- Academia, industry, NGOs and government must unite for sustainable healthcare solutions. Success in healthcare innovation depends on partnerships across sectors.
- The gap in medtech innovation coupled with weak local manufacturing systems in Africa has led to over-reliance on outdated imported technology.
- Cultural differences significantly impact product viability and should be carefully considered. Value can come from improving existing products: start small, then scale.
- Understanding unit economics and profitability early is crucial for long-term sustainability.

Each sector in the innovation chain brings unique strengths essential for progress. Academia fosters research and discovery, industry drives commercialisation, NGOs ensure accessibility and equity, and governments provide regulatory support and funding. Collaboration among these sectors enhances their complementarity. Ultimately, healthcare innovation is not just about developing new technologies but also understanding the economic, technological, and social factors that influence adoption and sustainability. Ignoring the interconnectedness required to advance innovations can result in even the most groundbreaking innovation solutions struggling to make a lasting impact.







## Innovating global healthcare: through technology and collaboration

### Dr Evona Teh

Dr Teh shared a personal story about choosing between scholarships in medicine and engineering. Initially drawn to medicine for its impact, she followed her mother's advice to pursue engineering, leading to a career that merges technology and healthcare.

As founder of EV Medical Consulting and a visiting professor at Imperial College London, she stressed the importance of multidisciplinary approaches in healthcare. She focuses on identifying inefficiencies in patient care and implementing quality improvement frameworks such as the UK National Health Service's (NHS) Quality and Outcomes Framework, which can be adapted for different cultural contexts, such as Malaysia.

Dr Teh discussed global healthcare trends, including demographic divides that could worsen inequalities. She highlighted cultural differences in response to AI – western caution vs. eastern trust – and emerging innovations such as human augmentation and brain-computer interfaces to enhance cognitive functions. She also underscored 6G's potential to revolutionise healthcare through real-time data sharing and enhanced connectivity.

She concluded by advocating for collaboration across academia, industry, government, and NGOs, emphasising that cross-sector partnerships are key to sustainable healthcare transformation.



Dr Evona Teh

## Reflections on African medtech innovation and commercialisation

### Wambui Gachiengo Nyabero

Wambui Nyabero's presentation provided a comprehensive analysis of the challenges and opportunities in Africa's medtech sector, drawing from her interaction with officials at a faith-based hospital in Kenya. She highlighted a critical issue: the lack of functional and adequate medical equipment. Many hospitals rely on outdated, imported, or donated equipment — often over 15 years old — which is difficult to maintain due to a shortage of trained local technicians and a reliance on costly external repairs. Over 90% of Kenya's medical technology is imported, with limited after-sales support, creating what she termed "equipment graveyards". The high costs and fragmented market make it difficult for healthcare providers to sustain operations, and the weak local manufacturing ecosystem further limits innovation. She stressed the need for diverse

leadership to drive innovation and create more inclusive solutions.

To tackle these challenges, she advocated for:

- A data-driven, user-centric approach to ensure innovations meet real healthcare needs.
- Practical training and technical transfer to bridge skills gaps.
- Harmonised regulatory frameworks across Africa, leveraging pan-African trade agreements.
- Local manufacturing to reduce dependency on imports, citing innovation such as VacciBox from Norah Magero as successful models.

By fostering collaboration, regional integration, and investment in local production, Nyabero believes Africa can develop a more sustainable and efficient medtech industry.



Wambui Gachiengo Nyabero



## Entrepreneurship in global healthcare: leveraging expertise for scalable impact

### Maryanne Muriuki

Maryanne Muriuki shared her entrepreneurial journey, which began in the US with a vision to manufacture in Africa. Together with a team of Kenyans, she launched a polystyrene food packaging business in Kenya, importing a manufacturing line from China.

What initially seemed promising quickly revealed unexpected challenges. Cultural differences, such as Kenyans' preference for stews over burgers, made their US-inspired packaging design impractical. Additionally, navigating Kenya's complex regulatory landscape also proved far more challenging than anticipated. Muriuki and her team realised they did not fully understand the demands of setting up a business in Kenya.

From 2014 to 2019, she ran the business until a fire forced its closure. Reflecting on her experience, Muriuki emphasised key entrepreneurial lessons:

- Customer-centric innovation – products must align with local needs.
- Regulatory awareness – understanding government policies is crucial.
- Capital and research – research-backed funding enhances business survival.
- Collaboration – finding the right partners drives scalability.
- Incremental improvement – innovation is not about novelty but about enhancing existing products.
- Sustainable growth – focus on unit economics and profitability rather than conferences or chasing funding.

Maryanne stressed that healthcare innovation, especially in medical devices and systems, requires collaboration between governments, academia, private industries, and nonprofits.

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**“Innovation does not necessarily have to be novel, rather provide value”**  
**Maryanne Muriuki**

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Maryanne Muriuki

# Group Activity

To kick off the session, participants were invited to grab a coloured pin representing their sector and place it on the map. As the pins accumulated, a diverse spread emerged, visually showcasing the rich mix of industries and geographies in the room. The activity sparked conversations, highlighted connections, and set the tone for an engaging and inclusive discussion.

In small groups, participants discussed medtech, digitalisation, and entrepreneurship, with discussions structured around three global regions: the US/Europe, Africa, and the rest of the world. Each group explored challenges and opportunities related to healthcare innovation in their assigned region. Participants were tasked with addressing three key questions:

- Enhancing healthcare innovation – identifying practical ways to strengthen ongoing efforts.
- Collaboration and communication – exploring how stakeholders within the healthcare ecosystem can work together more effectively.

- Cross-sector partnerships – envisioning the impact of unlimited collaboration across academia, industry, and government, and identifying the most beneficial partnerships for healthcare initiatives.

The conclusions from the group activity highlighted the importance of community-driven innovation and effective communication. Participants agreed that innovators should actively listen to community voices to create human-centred designs that meet user needs. Innovations should be bottom-up and driven by the people who will use them, ensuring both relevance and impact.







## Dr Nabeel Goheer

### Chief of the Asia, Middle East and Europe (AMEE) region, PATH

Dr Goheer's speech focused on the critical role of research, innovation, and collaboration in advancing global health, structured around four key themes.

He began by highlighting the devastating impact of the COVID-19 pandemic, which resulted in over \$16 trillion in economic losses – equivalent to three years of global economic output. The pandemic claimed over 7 million recorded lives, with an estimated 14 million additional unreported deaths – a scale equivalent to the loss of sixteen countries the size of Barbados. However, Dr Goheer noted that innovation played a crucial role in saving millions of lives. "By quickly collaborating and developing testing kits and vaccines, innovators saved us," he noted, underscoring the power of scientific ingenuity and partnerships. Moving to the broader landscape of global health, Dr Goheer discussed the intricate landscape of global health, outlining major players driving innovation, funding, and research. Philanthropic organisations such as the Gates Foundation, Wellcome Trust, Global Fund, and GAVI play a significant role, alongside multilateral development banks such as the World Bank, which provide substantial financial resources. He noted that the global healthcare market is worth nearly \$7 trillion, offering significant funding opportunities for innovators. However, he cautioned that funding alone is not enough – understanding market dynamics, regulations, and global health priorities is essential for success. "As an innovator, you must understand the market to know where to pitch your ideas," he advised.

Dr Goheer then introduced PATH, where he leads operations across Asia, the Middle East, and Europe. He highlighted its significant contributions, including its role in the WHO-prequalified malaria vaccine in 2023, developed with support from the Gates Foundation. PATH's work spans multiple areas from supporting 1,400 innovations and helping commercialise solutions to advancing research, product development, and affordable healthcare technologies. The

organisation also integrates climate adaptation into health innovation and leverages AI, data, and digital health to improve diagnostics and accessibility. He encouraged innovators to align their work with global funding sources and regulatory frameworks, engaging with stakeholders early to avoid delays in approvals and scale their impact efficiently.

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### **"As an innovator, you must understand the market to know where to pitch your ideas."**

#### Dr Nabeel Goheer

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Drawing from his personal and professional journey, he concluded by sharing five guiding principles for innovators:

- Stay informed – understand global shifts and anticipate emerging trends in health and technology.
- Have conviction – your innovation should be more than just a business idea – believe in its potential to make an impact.
- Be courageous – standing by your ideas requires boldness in the face of challenges.
- Develop strong character – integrity, resilience, and purpose will sustain your innovations.
- Be a source of hope – "The world is facing significant challenges, and as innovators, you have the power to create solutions that bring hope."



Dr Nabeel Goheer



## Dr Evelyn Gitau

### Chief Scientific Officer, Science for Africa Foundation

Dr Gitau opened her speech by highlighting global healthcare challenges, including infectious diseases, rising non-communicable diseases, and climate resilience. Despite these, she reiterated that opportunities for healthcare transformation still exist, through innovation, funding and partnerships, noting that COVID-19 demonstrated the power of cross-border collaboration.

She then introduced the [Science for Africa Foundation \(SFA\)](#), a pan-African non-profit dedicated to strengthening and promoting science and innovation. The foundation's strategic plan aims to position it as a leader in advancing African science for a better future. Its mission is to enhance Africa's science and innovation ecosystems to address sustainable development challenges and improve lives.

Dr Gitau highlighted two of the foundation's most impactful flagship programmes:

1. [Grand Challenges Africa \(GC Africa\)](#) supports Africa-led scientific innovations aligned with the Sustainable Development Goals (SDGs). The programme provides seed and scale-up grants for promising solutions. Notable projects that the foundation has supported through this include:
  - Incas diagnostics, which reduced yaws diagnosis time from two weeks to two hours, benefiting over 15,000 people. They also developed HIV and malaria test kits, impacting over a million individuals, and a rapid COVID-19 test.
  - [Friendship Bench](#) project delivered 349,838 mental health consultations and trained over 2,100 community health workers ("community grandmothers") to provide localised mental health support.
2. [DELTA Africa](#) strengthens research capacity through a hub-and-spoke model, where a lead institution collaborates with multiple

partners across countries to secure grants and implement scientific programs. Key achievements include:

- Strengthening research training and creating career pathways with 2,011 fellows to date, including 738 undergraduates, 388 master's students, and 335 PhD candidates.
- Fostering equitable research collaboration while engaging policymakers and the public, with 976 collaborations established (both individual and institutional), 258 community engagement activities reaching over 35 million people, and 2,479 research dissemination activities reaching over 104 million people.

Dr Gitau concluded by recalling the need for diverse perspectives in addressing global health challenges. She urged stakeholders including academia, policymakers, the private sector, and communities to collaborate on inclusive and innovative solutions. She encouraged attendees to use the symposium to forge lasting partnerships, break down silos, and drive healthcare innovations forward.

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**"Solving global health challenges requires a tapestry of diverse perspectives. Collaboration is not just beneficial – it is essential"**

**Dr. Evelyn Gitau**

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Dr Evelyn Gitau

## External activity

As part of the three-day event, participants visited the [United Nations Office at Nairobi](#), the largest UN complex in the Global South, to learn about the organisation's global role.

They also had a talk from the World Health Organisation (WHO) representative, Genna Print, gaining insights into its work in Kenya. There was opportunity to ask questions, and a discussion was held on WHO's efforts to strengthen the healthcare system through partnerships with different stakeholders in Kenya.

A highlight was WHO's emergency hub, which responds to health crises across Africa, including Ebola outbreaks and natural disasters. It also advances universal health coverage, addressing diseases like HIV/AIDS, tuberculosis, and cancer, while promoting healthy living initiatives such as the [Tobacco-Free Farms](#) programme. This initiative has helped 9,000 farmers transition from tobacco to more sustainable crops,

benefiting both the environment and their livelihoods.

In addition, to enhance accountability and transparency, WHO has introduced a mobile app that allows users to track healthcare progress at the county level. The app provides real-time data on medical interventions that have been carried out and highlights areas that still require attention, empowering both citizens and policymakers to take informed action.

Ultimately, WHO's mission in Kenya goes beyond offering support – it is about helping the country take full ownership of its healthcare system. By fostering local leadership and sustainable solutions, the goal is to ensure a healthier future for all Kenyans.



Participants at the United Nations Office at Nairobi







# Insights Session

The symposium ended with participants reflecting on key outcomes and key takeaways from the three days. Participants were invited to share the key words and themes that stood out for them, which included:

- **Collaboration:** seek partnerships, networking, interdisciplinary, foster a shared vision, opportunities
- **Innovation:** consider resources, sustainability, resilience, and the importance of simplicity
- **Entrepreneurship:** prioritise the user, understand local communities, and support local manufacturing
- **Funding:** go for impact and consider policy.





Later, in groups participants identified short-, medium-, and long-term goals for progress on healthcare issues.

Short term (one to three years)	Medium term (three to 10 years)	Long term (more than 10 years)
More public-private partnerships	More innovations working in Global South	Increased local manufacturing of medical devices and consumables
More investment to support digitalised healthcare	Increased adoption of mental health solutions	Improved and centralised healthcare data
Holistic approach in healthcare	More medtech healthcare innovations in Africa	Roll-out of projects between nations
Better cohesion and collaboration across disciplines	New funding models	Better quality of life
Increased use of technology in healthcare	More influence with governments	Less protectionism
Standardised medical data	More early-stage capital	Scale up of successful projects across continents
Moving away from aid and funding dependency	Transferring power from corporate to community ownership	Scale up of funding and grants
More human-centred innovations	Coordinated approach to health systems	Equal access to healthcare
More collaborations across countries and regions	More research in the Global South	Harmonisation of regulation

In her closing remarks, Professor El Haj emphasised the power of people in driving innovation, encouraging participants to leverage the networks formed during the symposium. She highlighted key themes, including interdisciplinarity, identifying real needs before innovating and the importance of simplicity in healthcare solutions. She also stressed the value of local manufacturing for economic growth and encouraged innovators to take a long-term approach to change, setting clear steps and timelines for impact.

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**“Innovation must start with understanding the needs of communities, be simple in execution, and remain rooted in local solutions that create impact over time”**

**Professor El Haj**

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Dr Butime described the symposium as the beginning of something bigger, expressing hope that collaborations and networks would persist. He encouraged continued engagement and reminded participants that innovation should focus on impacting communities.

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**“Let’s ensure that the collaborations and networks we have built continue beyond today, driving real impact in the communities we seek to serve”**

**Dr Butime**

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