



# Evaluation of the Ifakara Innovation Hub

Final Evaluation Report

## FINAL EVALUATION REPORT

27 March 2024



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## Abbreviations

Abbrev.	Meaning
COSTECH	Commission for Science and Technology
DAC	Development Assistance Committee
DBL	Dead body Lifter
EMSN	Edgar Marantha School of Nursing
EPFL	Ecole Polytechnique Federale de Lausanne
EiR	Entrepreneurship in Residence
GIIN	Global Impact Investing Network
IHI	Ifakara Health Institute
IIH	Ifakara Innovation Hub
MEL	Monitoring, Evaluation and Learning
MTR	Midterm Review
OECD	Organisation for Economic Co-operation and Development
PDC	Product Development Centre
PDP	Product Development Partnership
PMO	Project Management Office
RFCC	Rockefeller Foundation. RF Catalytic Capital
SDGs	Sustainable Development Goals
SFRH	St. Francis Referral Hospital
SFUCHAS	St. Francis University College of Health and Allied Sciences
SIDO	Small Industries Development Organization
SVF	Social Venture Fund, LLC
TBS	Tanzania Bureau of Standards
TMDA	Tanzania Medicines & Medical Devices Authority
TOC	Theory of Change
TRA	Tanzania Revenue Authority
TTCIH	Tanzania Training Center for International Health

## Executive Summary

Genesis Analytics was engaged by the Embassy of Switzerland in Tanzania to evaluate the Ifakara Innovation Hub (IIH). The evaluation examines the hub's relevance, coherence, effectiveness, efficiency, and sustainability to guide stakeholders, including the Embassy, in making informed decisions about IIH's direction and its role in fostering innovation in the region.

The IIH, initiated under the Swiss Development Cooperation Programme 2021-2025 and co-financed by Fondation Botnar, targets young entrepreneurs and innovators, focusing on transforming ideas into commercial products and services, enhancing the hub's sustainability, and improving the innovation ecosystem. Since its inception in 2020, the IIH has partnered with a network of institutions in education, research, and healthcare, such as the Ifakara Health Institute (IHI) and Villgro Africa, to promote health innovation and entrepreneurship. The hub consists of a Product Development Partnership (PDP) Forum, which supports communities in the Kilombero River Basin to enhance rural livelihoods through social innovation and entrepreneurship. This support is also offered through the Kilombero Innovation Community, providing resources and fostering a collaborative innovation environment.

The Embassy of Switzerland in Tanzania commissioned the evaluation to gauge the IIH's achievements against its objectives, distil lessons learned, and offer recommendations for the future. The assessment was steered by the OECD Development Assistance Committee (DAC) criteria, encompassing relevance, effectiveness, coherence, efficiency, and sustainability, informing the subsequent planning for the hub. Consequently the evaluation adopted a theory-based approach informed by a comprehensive evaluation framework which aligned with the OECD's DAC criteria. The evaluation framework served as a guiding compass for the evaluation.

### Evaluation findings

The following section presents the findings from the evaluation by the OECD DAC criteria.

#### Relevance

The IIH responds to the diverse needs of innovators in Tanzania, offering tailored support for both urban and rural entrepreneurs, which is vital for addressing their unique challenges. Its approach is holistic, providing support through infrastructure, mentorship, product development, technical resources, and crucially, capital, to foster a conducive environment for innovation. The IIH's design is the result of a multi-stakeholder process and aligns with the strategic goals of IHI and the Kilombero Innovation Community. It also resonates with global priorities, emphasising the importance of locally-led solutions that contribute to the UN Sustainable Development Goals (SDGs). The hub's initiatives on gender equality and youth empowerment further reflect its commitment to broader developmental objectives.

#### Coherence

The IIH's partnership approach pools expertise and facilitates collaboration, benefiting from affiliations with research institutes and makerspaces. Partners such as Robotech Labs, Bongo Tech & Research Labs, and Villgro Africa bring specific expertise, which is vital for the hub's success. However, challenges include issues of hub ownership, communication, partner disengagement, and conflicts of interest, hindering coherence and collaborative efforts. Differing partner priorities and unclear roles have also been obstacles, alongside a decision-making process that can lead to delays due to its complexity. The IIH's distinguished focus on medical innovation and its engagement in capacity-building and policy advocacy are notable, despite challenges in partner alignment and governance.

## Effectiveness

While initial progress was slow, recent advancements indicate effectiveness in enhancing startup productivity and performance. The rural livelihood portfolio has particularly demonstrated significant progress. Comprehensive assistance and capacity-building initiatives have enabled startups to navigate the regulatory environment and contribute to national innovation policy development. However, bureaucratic hurdles, funding delays, and external factors affected project timelines. The hub director's commitment and the partnership with makerspaces have been instrumental, though delays in fund disbursements and equipment procurement were cited as concerns. Despite these issues, the hub has attracted attention from innovators across the country.

## Efficiency

The hub experienced significant initial delays due to inefficiencies in governance, including inexperienced leadership. A slow burn rate of resources led to a no-cost extension, though subsequent utilisation of funds aligned with work plans. The IHI's complex contract management systems added to the operational inefficiencies, indicating areas that require improvement to enhance the hub's efficiency, while the hub's M&E system lacked robustness, affecting tracking and reporting of impact. However, flexibility and adaptability from funding partners have enabled strategic adjustments and programmatic decisions.

## Sustainability

The hub has outlined a sustainability strategy, proposing the establishment of a venture accelerator and exploring various revenue streams. Its registration as an independent entity is a significant step toward sustainability. However, donor support remains crucial during the transition phase. Key components, such as the fabrication lab, leveraging partnerships with government stakeholders such as SIDO offer potential for sustainability for income generation and startup pipeline support. The high performance expectations for startups and the resurfacing of governance issues pose risks, while the hub's sustainability is also contingent on a consistent national innovation ecosystem. High staff turnover remains a risk to sustainable operations.

## Recommendations

Based on the findings from the evaluation, the below recommendations have been made.

1. The hub should continue with its current focus on young entrepreneurs and rural innovation.
2. The hub's profile should be elevated in the innovation ecosystem, at a regional and global level.
3. Strengthen the peer-to-peer engagements within the hub.
4. The hub should maintain its partnership approach but harmonise partners' priorities and strengthen communication between the partners and the executive committee.
5. The executive committee should have equal weighting in their decision making power and should be a small, targeted committee.
6. The hub should develop a performance monitoring system that enables learning and informs decision making.
7. The hub should gradually move away from its host arrangement and develop its own administrative processes and disbursement mechanisms that are independent from the IHI.
8. The hub should increase its staffing contingent, ensuring there is sufficient technical capacity to implement the hub's activities, especially as it scales.
9. The hub should pursue other funding partners in the short-term and, in the longer-term, more sustainable and diverse financing streams.

10. Linked to the above recommendation, the hub should continue to work with flexible and dynamic funding partners, this is increasingly important to remain cognisant of as it pursues additional sources of funding.

# 1 | Introduction

Genesis Analytics (hereafter 'Genesis') was contracted by the Embassy of Switzerland in Tanzania to conduct an evaluation of the Ifakara Innovation Hub (IIH or 'the hub'). The evaluation focuses on the hub's relevance, coherence, effectiveness, efficiency, and sustainability. By providing a comprehensive analysis of these factors, the evaluation aims to support the Embassy and other stakeholders to make informed decisions about the future direction of the IIH and its impact on driving positive change and innovation in the region.

## 1.1 About the Ifakara Innovation Hub

The IIH was conceptualised under the Swiss Development Cooperation Programme 2021-2025, with the aim of supporting and empowering young entrepreneurs and innovators to develop solutions to societal challenges. Its mission includes transforming these ideas into marketable products, supporting sectoral growth, and creating skilled jobs. IIH, co-financed by Fondation Botnar, began operations in 2020, having been founded in 2019 as a sister project to Nest360°, which aimed to develop affordable and repairable technologies and business models to save newborn lives in Sub-Saharan Africa. As a result, the IIH identified three strategic priorities:

- Support innovators and entrepreneurs in transforming their innovations for livelihoods and health into marketable products and services.
- Strengthen the IIH's institutional capacity and sustainability.
- Enhance innovation ecosystems to ensure the flourishing of innovation and social entrepreneurship.

The IIH is a crucial component of a network of organisations comprising educational, research, and healthcare institutions. Through collaboration with these organisations, the IIH seeks to expand its knowledge base and drive health innovation and entrepreneurship in Tanzania. To this regard, the IIH signed a partnership framework between key players in the innovation ecosystem. Known as the Product Development Partnership (PDP) Forum, it comprises organisations such as the IHI, Villgro Africa, AfriLabs, the University of Basel Innovation Office, Bongo Tech Research Labs, Ecole Polytechnique Federale de Lausanne (EPFL), RoboTech Labs and the Commission for Science and Technology (COSTECH). The IIH offers a co-working space, design lab and entrepreneurship support to the communities in the Kilombero River Basin to enhance rural livelihoods through social innovation and entrepreneurship. This support is offered through the Kilombero Innovation Community organisations, namely St. Francis University College of Health and Allied Sciences (SFUCHAS), Tanzania Training Center for International Health (TTCIH), Edgar Marantha School of Nursing (EMSN) and St. Francis Referral Hospital (SFRH). Together, these partnerships aim to create a stronger, more supportive innovation environment, and provide support and resources to entrepreneurs and innovators, while also fostering collaboration and knowledge sharing within the ecosystem.

### 1.1.1 History of the hub's implementation

Understanding the history of the IIH in Tanzania is crucial for evaluating its current role in the ecosystem. It provides valuable context for assessing its effectiveness in meeting the needs of young entrepreneurs and innovators. By examining its historical development, including founding principles, strategic partnerships, and programmatic initiatives, the evaluation gained insights into the challenges it has faced and the strategies it has employed to overcome them. This historical perspective has enabled a more nuanced interpretation of the evaluation results based on the hub's journey to date. The history of the hub is presented in Table 1 below.



Table 1: History/timeline of the hub's implementation

Timeline
<p><b>2019</b></p> <ul style="list-style-type: none"> <li>• The Innovation Hub is established and the impact hypothesis is formulated, focusing on enhancing sustainable entrepreneurship and digital solutions within the Kilombero Valley and globally.</li> <li>• Key elements such as skills development, technology transfer, incubation, internship opportunities, and co-working community platforms are identified to drive local development.</li> <li>• Partnerships with investors, funders, innovators, and the Kilombero Valley community are identified as crucial for the success of the project.</li> <li>• IHI, on behalf of the IIH executive committee, is tasked to establish and run the Innovation Hub with an operational timeline set for an initial 3-year period (2019-2022).</li> <li>• The Hub manager is recruited in March 2019, yet there was a discerned requirement for a Program Director to supervise program strategy and partnerships.</li> <li>• The May 2019 Operational plan indicates that: (1) the hub's initiation activities were 100% completed, (2) the steering committee tasks for setting up the program were 45% completed, and (3) the official launch of the hub's activities was at 0%.</li> </ul>
<p><b>2020</b></p> <ul style="list-style-type: none"> <li>• In March 2020, the executive committee appoints a Program Director.</li> <li>• At a visioning workshop in March, requirements for a high-quality Product Development Centre (PDC) in Dar es Salaam are set out.</li> <li>• The Ifakara Hackathon 2020, which focuses on public health, nutrition, and food security, is held in March. It involved 23 innovators and various professionals such as medical practitioners, public health experts, nutritionists, ICT specialists, and business developers. It produced two health startups: DadaLead enterprises, which is developing reusable sanitary pads, and NovFeed, which uses food remains or leftovers to feed fish or create nutrients for fish.</li> <li>• The Ifakara Idea Marathon is conducted in May 2020, focusing on social impact-based solutions for adolescents, children, and babies in Dar es Salaam, Bagamoyo, and Ifakara. The IIH collaborated with EPFL and IHI to host 64 innovators out of 71 total applications. The challenge provided a platform for aspiring innovators to generate and improve innovative ideas addressing health challenges.</li> <li>• In June 2020, a proposal for establishing a new PDC facility in Dar es Salaam at a cost of USD 711,275.00, is presented.</li> <li>• In November, 2020, the Ifakara Bootcamp for Essential Medical and Health Innovation is held in partnership with EPFL, as part of the Tanzanian-Swiss Medical Technology Innovation and Entrepreneurship Initiative. 10 teams presented their ideas and requested further development support from the hub. About six innovations were selected at the end of the program, forming the PDP portfolio.</li> </ul>
<p><b>2021</b></p> <ul style="list-style-type: none"> <li>• In February 2021, the Midterm Review (MTR) is conducted. Some of the key findings from the included:             <ul style="list-style-type: none"> <li>◦ Implementation Challenges: significant delays in implementation were observed, attributed to confusion regarding partner roles, processes, accountability structures, and leadership direction.</li> <li>◦ Partnership Strengths: it was observed that the program partners were diverse and leveraged each other's strengths, with a strong donor partnership based on mutual respect.</li> <li>◦ Engagement Success: the program had achieved some success in engaging innovators in Ifakara, with the potential for further bridging the gap between rural and urban innovation structures as the program matured.</li> </ul> </li> </ul>

- Stakeholder Engagement: key ecosystem stakeholders such as the government stakeholders, investors and manufacturers had not fully been engaged, highlighting a need for broader stakeholder engagement.
- In May, the Ifakara Hackathon 2021 is held, which focused on projects with potential impact on public health. The challenge aimed to connect grassroots innovation to economic development for rural youth and women in the Kilombero Valley. 23 innovators participated actively, and five final ideas were pitched in the final presentation. At the end of the program, three innovations were enrolled in the IIH's livelihood project pipeline, focusing on clean energy, nutrition, and food security.
- In November 2021, the second Ifakara Idea Marathon with demo day is conducted. Four innovations were included: Mkanda Salama from college students at the TTCIH, Mpaka Gambiaya submitted by college students from Muhimbili University, a mosquito trap, and newborn thermal control, both submitted by researchers from the IHI.

## 2022-23

- The Annual Operation Report (July 2022 - June 2023) is developed. It indicates the following achievements:
  - Development of a five-year strategic plan (2023-2028).
  - Establishment of three maker spaces and design studios equipped with technical resources for product development.
  - Change in IIH's approach from innovation challenges into an interactive digital database called the Portfolio Management Dashboard, attracting 37 innovation ideas and five mentors by June 2023.
  - Participation in national and regional forums for commercialisation strategies, including events like Tanzania Innovation Week 2023, and Sahara Sparks 2022, amongst others.
  - Supported over 15 innovations and startups through the incubation program, with notable success like NovFeed winning a \$1 Million Grand Prize in the Milken-Motsepe Agritech Innovation Competition 2023.
  - Implementing the Entrepreneurship in Residence (EiR) program at the EssentialTech Centre of EPFL in Switzerland from September to December 2022. The program, which included three female-led and three male-led ventures, provided opportunities for startups to refine their innovations for market entry.
  - Signed an agreement with the University of Basel through the Innovation Office to support product development, enhancing industry knowledge and academic collaboration.
  - Enrollment of eight startups for functional hardware product development, with two focusing on livelihood portfolios and six on medical devices and digital health, entering into patent agreements for mutual benefit with IIH and partners.
  - Engagement in policy dialogue with the Government of Tanzania regulatory agency, Tanzania Revenue Authority (TRA), and other stakeholders to redefine regulatory guidelines for startups and entrepreneurship grant awards.
- Watoto Challenge 2022 (Ifakara Designathon) an innovation challenge is organised by the hub in collaboration with Jenga hub, an innovation centre based in Dar es Salaam. It aimed to stimulate the innovative minds of primary school students in Ifakara, focusing on science and digital-related challenges. The enrolled teachers and students were equipped with future-ready skills such as creative problem-solving, robotics, and change-making for social, economic, and environmental challenges. 50 children from five selected schools in Ifakara participated, along with five teachers from the training of the trainer program.
- In November 2023, the IIH is formally registered as a legal independent entity.

## 2 | Purpose and Objectives of the Evaluation

As noted above, the Embassy of Switzerland in Tanzania, a key donor of the IIH, sought an evaluation of the IIH to understand the extent to which it had met its objectives, unpack the learnings from the project, and provide recommendations for future planning. The evaluation focused specifically on the following objectives:

- To assess the project's performance guided by the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) criteria of relevance, effectiveness, coherence, efficiency, and sustainability, as presented in Table 2 below.
- To provide recommendations from phase 1 to inform the future design of the hub.

Table 2: OECD-DAC Criteria

Evaluation criteria	Definition
Relevance	How aligned are the objectives of IIH with the changing needs and priorities of young innovators/entrepreneurs, country requirements, implementation partners, global priorities, and key stakeholders, including funding partners?
Coherence (internal and external)	Is the program operating cohesively internally, considering governance and management structures, and externally, in collaboration with partners?
Effectiveness	What is the level of achievement of IIH results (outputs and outcomes) to date, and what is the anticipated or projected outcome?
Efficiency	How effectively have resources and inputs (funds, human resources, time, etc.) been utilised to produce results?
Sustainability	To what extent are the positive outcomes of the project expected to persist and benefit stakeholders beyond the conclusion of IIH?

## 3 | Methodology

The following section presents the approach employed in the evaluation. This also includes the limitations to the approach and the implications of these.

### 3.1 Approach and Evaluation Framework

The evaluation adopted a theory-based approach informed by a comprehensive evaluation framework, presented in [Annex 1: Evaluation Framework](#). Aligned with the OECD's DAC criteria, the evaluation framework served as a guiding compass for the evaluation. It ensured that the evaluation assessed, among others, the hub's alignment with stakeholder needs and priorities, the achievement of its objectives, the internal and external coherence of the hub, the hub's use of resources and its sustainability. These aspects provided a holistic assessment of the IIH's performance and potential for future growth.

The evaluation commenced with an inception phase, the culmination of which was the inception report, which formed the basis for the evaluation going forward. In line with the theory-based approach, the evaluation included a thorough examination of project documentation along with a comprehensive

review of the Theory of Change (TOC) to understand its logic and identify underlying assumptions. This review, along with the comprehensive evaluation framework, guided the data collection process, elaborated on below.

## 3.2 Data Collection

The evaluation employed a comprehensive data collection approach, as detailed in the following section. This included document review, key informant interviews (KIIs), and one-on-one interviews with entrepreneurs and innovators. Qualitative data was analysed using inductive thematic data analysis, facilitating the identification of nuanced patterns and relationships within the data, offering valuable insights specific to the IIH project's outcomes and stakeholder perspectives.

### 3.2.1 Desktop review

The evaluation team conducted a thorough review of relevant program documentation to gain insight into the program's evolution, its activities, and performance to date. A summary of the documents reviewed are listed below. A comprehensive list of documents can be found in [Annex 2: List of documents reviewed](#).

- IIH Programme Document
- IIH Visioning Report 2020
- IIH Strategic Plan 2023-2028
- Proposal to Fondation Botnar
- IIH Strategic Plan 2023-2028
- IIH Milestone Reports
- IIH Steering Committee Meeting Minutes
- IIH Operational Plans and Budgets

### 3.2.2 Interviews with key informants

The evaluation conducted a series of KIIs with a total of twenty two (22) participants, including:

- Implementing organisations
- Donor representatives
- International organisations and institutions
- Executive Committee members
- Government of Tanzania representatives
- PDP members
- Additional stakeholders such as the TTCIH and St. Francis Referral Hospital (SFRH)

A comprehensive list of stakeholders is provided in [Annex 3: List of Stakeholders](#). The KIIs were conducted using a semi-structured interview guide that was approved by the evaluation steering committee in the inception report. The semi-structured format of the guides enabled the evaluation team to delve deeply into specific topics while also providing respondents with the opportunity to provide detailed and nuanced feedback. The interviews were primarily conducted virtually using Google Meets.

All interviews were conducted with assurances of anonymity of the respondents, ensuring the privacy and confidentiality of contributors. No comments in the report are directly linked to individual interviewees to maintain this anonymity and protect their interests.

### 3.2.3 Interviews with entrepreneurs/youth innovators

One-on-one interviews with entrepreneurs and youth innovators played a crucial role in the evaluation of the IIH. These interviews served as a valuable source of information, enabling stakeholders to express their perspectives on the project and articulate the changes they have experienced due to their involvement. The insights gathered from these interviews provided rich qualitative data that shed light

on the effects of the hub on the entrepreneurial ecosystem and the experiences of the youth innovators. Interviews were conducted with innovators from both the Rural Livelihood and the PDP Portfolio. Four interviews were conducted in person, while seven were conducted online, via Google Meets or telephonically.

### 3.3 Limitations of the assignment

There were a few limitations that the evaluation team faced in data collection. It is important to note that the limitations were overcome using mitigation strategies and did not have adverse effects on the outcomes of the evaluation. Therefore, the quality of the evaluation was not substantially affected by the limitations described below.

**Table 3:** Limitations of the evaluation and mitigation strategies

Limitations	Mitigation Strategy
<ul style="list-style-type: none"> <li>The evaluation intended to conduct interviews with a range of government agencies, however, only one such interview could be secured.</li> </ul>	<ul style="list-style-type: none"> <li>The document review provides information regarding the government agencies' involvement and support of the IIH. This information was used to triangulate evidence from stakeholders interviews.</li> </ul>
<ul style="list-style-type: none"> <li>Limited M&amp;E data on (i) the performance of startups and (ii) on key changes in the outputs and strategic focus areas - there are no indicators corresponding to these nor cumulative data to measure overall progress of the hub.</li> </ul>	<ul style="list-style-type: none"> <li>Information from KIIs was used to triangulate the data from the quarterly activity and milestone summary reports, and annual milestone and operation reports. This enabled the evaluation team to align and compare the progress and achievement of the hub's performance.</li> </ul>

## 4 | Findings

This section provides a detailed discussion of the evaluation's findings. This commences with a reflection on the implementation of the midterm review's recommendations, thereafter, each sub-section corresponds to one of the OECD-DAC criteria, offering a perspective on the project's performance to date.

### 4.1 Reflection on the recommendations from the midterm review

This section examines the extent to which the recommendations from the midterm review were implemented. The 2021 review highlighted both progress made and challenges encountered in the program's implementation, highlighting the need for clarification of roles and vision among partners, development of strategic priorities, and the establishment of effective communication channels.

Table 4: Implementation status of recommendations made in the last evaluation of the IIH

	2021 Review Recommendations	Current status
<b>Implementation:</b> <i>Program implementation has stilted with challenges in gaining momentum</i>		
1	Clarification of vision between partners	<b>Implementation incomplete</b> The Strategic Plan clarifies the vision between partners. However the extent to which this is understood by partners needs to be realigned as stakeholder interviews revealed gaps here.
2	Acknowledge the program is unique and comprised of multiple components – activities should be prioritised accordingly	<b>Implementation incomplete</b> While the strategic plan was developed in 2023, the evaluation could not determine if the hub had actioned this recommendation in the period between the MTR and the development of the strategy. Nonetheless, progress has been made under the Strategic Plan, which has identified three key strategic priorities through a thorough contextual analysis process and discussions with the IIH executive committee, IIH management, and IIH stakeholders. These priorities aim to make an impact on the community that the IIH serves and the nation at large.
3	Formal implementation plan	<b>Implementation incomplete</b> There is no documentation to show a formal implementation plan was developed in the period between the MTR and the strategic plan. However, the Strategic Plan 2023-2028 outlines a formal roadmap for implementation. This plan includes action steps with timelines, resource allocation strategies, stakeholder engagement approaches, monitoring and evaluation frameworks, risk management strategies, and a communication plan. At the time of this evaluation, the implementation of this strategy was in progress.
4	Improved communication channels including agreement on collaborative tools	<b>Implementation incomplete</b> The evaluation found that there are communication gaps that still persist.
5	Introduction of a responsible, accountable, consulted and informed (RACI) matrix	<b>Implementation incomplete</b> No documentation to indicate that this was done.
<b>Governance:</b>		
6	There is a need to be clear that IHI is a host rather than project lead	<b>Implemented</b> This recommendation was actioned. The hub has since become an independent entity, spinning off from IHI.
7	Role of steering committee	<b>Implementation incomplete</b> Progress has been made towards the implementation of this recommendation through the development of the Strategic Plan 2023-2028 which outlines the role of the steering committee within IIH. The committee's role is to provide strategic guidance, oversight, and approval for key decisions related to the hub's operations and initiatives, including annual work plans and budgets. The steering committee possesses the highest authority in decision-making and administration within IIH. Although this is clearly outlined in

	2021 Review Recommendations	Current status
		the plan, there were still communication gaps between the steering/executive committee and the PDP which hindered the operational efficiency of the hub.
8	Partner roles and responsibility clarification	<b>Implementation incomplete</b> After the MTR there was a collaborative framework that was developed to better clarify the roles and responsibilities of the PDP partners. However, this framework only provides this clarification for four PDP partners - Bongotech, Robotech, Villgro Africa, and EPFL. This doesn't clarify the roles of the other members like the government, University of Basel.
9	The role of the Program Director and the support provided to this individual	<b>Implemented</b> Since the MTR, the Program Director has played a pivotal role in driving the vision and mission of IIH, developing partnerships, mobilising resources, and managing program activities to achieve the organisation's goals.
10	Reporting structure and accountability mechanisms	<b>Implementation incomplete</b> The reporting structure and accountability mechanisms were found to be a limitation in the evaluation process. There are plans to address this in the Strategic Plan, but the extent to which these will be robust is unknown.
11	Use of funds and financial accountability	<b>Implemented</b> Annual Operation Report July 2022 - June 2023 provides insights into the use of funds and financial accountability at the IIH during the operational year 2022-2023. It mentions that 27% of the allocated budget was directly spent on project activities, with 30% allocated to the project team and experts. Administrative costs made up about 22%, and institution overhead constituted around 9%. However, the financial reports indicate that 11% of the budget remained unspent, primarily originating from the project team and experts. The report also highlights that adjustments were made to the planned activities, leading to some activities being carried forward into the next reporting year.
12	Partners ability to initiate action with clear protocols in a collaboration framework	<b>Implementation incomplete</b> The Collaboration Agreement established a structured framework for Partners to initiate, and manage their inputs and engagements with the hub. Through a defined decision-making structure, including the steering committee and the appointment of a PDC focal person, clear protocols are set for managing the Initiative. Financial contributions are managed by the Lead, who disburses funds to Collaborators based on the approved workplan and budget, ensuring transparency and accountability. Regular reporting mechanisms, including written and verbal communications and interim reports, facilitate the exchange of progress updates and maintain alignment with the Terms of Reference. However, the evaluation highlighted issues such as ambiguity in the execution of roles and responsibilities, and communication gaps. Additionally, the collaboration framework only provides the roles and responsibilities of four PDP partners - Bongotech, Robotech, Villgro Africa, and EPFL.



	2021 Review Recommendations	Current status
13	Each element of the governance structure needs to come together to reflect the interconnected nature of a multi-stakeholder partnership aiming to support a collaborative strategy	<b>Implementation incomplete</b> The Annual Operation Report July 2022 - June 2023 emphasises the importance of a multi-stakeholder partnership in supporting a collaborative strategy at the hub. However, the evaluation identified governance as a significant challenge, noting a lack of transparency and updates regarding executive committee meetings and decisions. This absence contributed to a general feeling of disconnect among the PDP partners.
<b>Strategic use of M&amp;E tools:</b> <i>An important part of adaptive management is setting up intentional reporting and learning processes. It is critical to factor this into implementation planning</i>		
13	Use the TOC to aid internal and external communication, planning, and reporting	<b>Implementation incomplete</b> Although the activity reports provide activities against outputs/strategic priorities, the evaluation found that the hub did not have a systematic way to capture M&E data. Thus, it is unclear if the TOC was used to aid communication, planning and reporting after the MTR.
14	Align partner key performance indicators (KPIs)	<b>Implementation incomplete</b> There are activities outlined in the collaborative framework for the four PDP partners, however there are no measurable KPIs provided for the partners.
15	A rapid assessment should be conducted in 6 months	<b>Implementation incomplete</b> No documentation to indicate that this was undertaken.
16	Learning as a matter of course through implementation	<b>Implementation incomplete</b> The Annual Operation Report July 2022 - June 2023 emphasised the importance of learning through implementation by highlighting lessons learned from the hub's operations during this reporting period. While the report emphasises learning, learning had not been fully integrated into the project's implementation.

## 4.2 Relevance

This section discusses the relevance of the IIH by assessing the alignment of its objectives and design with various factors including the needs and priorities of young innovators and entrepreneurs, the innovation landscape in Tanzania, global priorities, and the interests of key stakeholders, including funding partners and implementation partners.

### Relevance of the IIH as it relates to the needs of young innovators and entrepreneurs

**The IIH is relevant as it caters to the diverse needs of innovators through its holistic and tailored approach.** A key strength of the IIH is its approach to understanding the needs of entrepreneurs through needs assessments, enabling it to tailor its programs to meet these needs. This is particularly crucial in addressing the unique challenges faced by rural entrepreneurs, such as access to funders and compliance-related barriers, and ensuring that urban entrepreneurs, who often have better access to resources, also benefit from the hub's support. In areas like agriculture, a significant focus for the region, the IIH's tailored programs were said to address the specific needs of these innovators, which would not have been possible with a one-size-fits-all approach.



**The support provided by the IIH is valued and needed by young innovators.** Interviews with entrepreneurs indicated that through infrastructure, funding, and resource linkages, the IIH helps innovators bring their ideas to life, fostering a culture of innovation in Tanzania. Additionally, the IIH offers product development and branding support, which is needed for innovators to refine their ideas and bring them to market successfully. By offering mentorship, community building, and guidance towards prototyping and market access, the IIH further supports entrepreneurs with what they need by creating an environment where they can learn from each other and build on one another's ideas. Entrepreneurs also noted that the entrepreneurship training provided valuable, needed skills in financial management, branding, business registration, and regulatory compliance. This training was noted as being valuable in enabling them to add value to their products and create jobs.

*"Through the hub, I have been able to communicate my idea to my target audience clearly within a short duration. [The hub] has taught me how to brand my idea through social media and has equipped me with financial skills."*

- Entrepreneur interview (translated from Swahili)

**The IIH is relevant to the needs of rural entrepreneurs in the Kilombero valley as it provides a physical space and resources that entrepreneurs can easily access instead of travelling long distances to urban areas to access the same resources.** Because of the limited investment in innovation in rural areas, the majority of budding innovators and entrepreneurs lack opportunities and resources to grow their innovations and businesses. With the IIH being located in a rural area it has invested in enriching innovation in Ifakara by creating awareness of the hub and innovation itself, providing access to resources such as equipment and internet connectivity, and providing innovators training and mentorship to support the development of their ideas and products within their communities. Rural entrepreneurs typically also lack expertise about the compliance and regulatory requirements for their innovations, which the hub provides.

*"In my perspective urban innovators are exposed to more opportunities compared to us in rural areas. They have easy access to government institutions too. Even as far as materials, equipment is concerned, urban people have easy access compared to innovators in rural areas."*

- Entrepreneur interview

**The IIH further aligns with innovators' needs by providing them with technical resources and access to makerspaces that they otherwise would not be able to access.** Through collaborations with Bongo Tech & Research Labs and Robotech Labs, the hub provides innovators with access to technical resources, equipment and Makers Spaces. Additionally, the hub offers entrepreneurial skill set support and business incubation in partnership with Villgro Africa. This approach was noted as being relevant as it fosters an enabling environment for innovation more broadly, especially when supported by collaborations with government agencies.

**A standout feature of the IIH is its ability to provide capital to young innovators to create new ideas.** Access to capital is a key challenge faced by young entrepreneurs in Tanzania. While other hubs typically prefer to fund established businesses, the IIH focuses on supporting new and innovative ideas and enterprises.

## Relevance of the programme design to achieve its objectives

**The design of the IIH and its components are relevant to achieving its objectives, which was enabled through the multi-stakeholder conceptualization process.** The concept of the hub

originated from a joint effort between the IHI, and its funding partners Fondation Botnar and the SDC. According to stakeholders, the idea was to create a sustainable business model and provide entrepreneurship opportunities for youth in Tanzania specifically around the healthcare sector. This multi-stakeholder, consultative design process was important in supporting a collaborative hub approach that builds upon existing initiatives, while reducing duplication of efforts and wastage of resources.

*"It is important to collaborate with other foundations. There is a lot of waste of resources and a lack of efficiency because different funding partners are trying to do the same thing instead of coming together and aligning. Through our collaboration, we managed to get rid of a lot of processes and try to walk with a kind of format that is more supportive for the project and for the project team."*

- Stakeholder interview

**The design of the IIH's activities align well with the IHI and the Kilombero Innovation Community's strategic goals.** The IIH activities were designed to leverage the existing knowledge and scientific findings of the IHI by translating this research into medical products and devices for commercialisation. Given that the community is embedded in the healthcare sector and receives support from the Swiss Government, their strategies align well with the IHI and subsequently the IIH. These organisations were brought on to support medical research and develop a pipeline of medical students and innovators interested in developing their ideas into tangible products. In addition, community members such as the TTCIH provided a space for a design lab that the hub could use to support innovators and startups to develop their ideas, prototype and commercialise them.

*"In 2020 I saw an advert about [the] Idea Marathon and I applied since I was into innovations and by then it was during COVID. When they called it was a panel discussion whereby doctors and specialists from different hospitals like St Francis (Morogoro), Mloganzila and Muhimbili wanted us to come up with solutions on different medical problems in hospitals like HIV and Malaria. Fortunately I was in the maternal immune care department trying to solve some challenges. With my team we came up with almost 5 solutions but the hub wanted us to come up with one concrete solution."*

- Entrepreneur interview (translated from Swahili)

## Alignment with national priorities

**The IIH is highly aligned to Tanzania's national priorities, particularly in the areas of innovation, economic development, and healthcare improvement.** The IIH aims to address the unique challenges faced by youth innovators, with a focus on young women in the Kilombero Valley. This focus aligns with Tanzania's broader national priorities for youth empowerment and economic development. Tanzania's commitment to fostering economic growth and innovation is exemplified by initiatives such as the Tanzania Innovation Week, an event in which IIH actively participates. By supporting startups, entrepreneurs, and innovative solutions, IIH also plays a role in driving economic development, job creation, and entrepreneurship in the region, aligning with Tanzania's priorities for economic empowerment and poverty reduction. Furthermore, IIH aims to foster innovation, idea generation, and collaborative efforts for the development of solutions, aligning with Tanzania's focus on promoting innovation and technology as drivers of economic growth and social development as outlined in the Tanzania Development Vision 2025.

**The IIH is also aligned to Tanzania's national health objectives as it aims to address critical challenges related to healthcare through innovative solutions.** The overall objective of the health

policy in Tanzania is to improve the health and well-being of all Tanzanians, with a focus on those most at risk, and to encourage the health system to be more responsive to the needs of the people. The IIH aims to support local innovations that address healthcare needs in Tanzania. In doing so, the IIH is aligned with the key national priorities for enhancing public health.

**At a national level, Tanzania has a strong emphasis on human capital development and skills development, which aligns with the objectives of the IIH.** Some of the key national priorities for this area include (1) Improving access to quality education at all levels, from primary to higher education, to ensure a well-educated workforce, (2) Enhancing vocational training programs to equip individuals with practical skills that are in demand in the job market, (3) Investing in healthcare infrastructure and services to improve the health and well-being of the population, (4) Fostering an environment conducive to job creation through economic policies that support entrepreneurship and innovation, (5) Promoting the development of information and communication technology (ICT) skills to meet the demands of the digital economy and (6) Ensuring equal opportunities for both men and women in education and the workforce to maximise the country's human capital potential. By focusing on building the capacity of entrepreneurs, innovators, and stakeholders through mentorship, training, and collaboration, supporting innovators and encouraging medical technology innovations, IIH supports Tanzania's priorities for human capital development and skills enhancement. Additionally, IIH engages in policy dialogues with government agencies such as the Tanzania Medicines & Medical Devices Authority (TMDA) and other stakeholders to shape regulatory guidelines for startups and entrepreneurship grant awards, contributing to the establishment of a conducive policy framework for innovation in Tanzania, which is aligned to achieving the above objectives.

## Alignment with global priorities

**The IIH demonstrates alignment with global priorities through its focus on driving locally-led solutions that resonate with international objectives.** The IIH focuses on fostering a culture of entrepreneurship and innovation to improve local community well-being and sustainable development. This aligns with global priorities outlined in the United Nations Sustainable Development Goals (SDGs), particularly Goal 3 (Good Health and Well-being) and Goal 9 (Industry, Innovation, and Infrastructure). By supporting the translation of innovations and promoting the development of sustainable solutions, the IIH contributes to global efforts to advance health innovation and achieve the SDGs.

**IIH actively engages in national and regional forums, and has partnerships with international innovation-oriented institutions and organisations, with which further aligns its efforts with global priorities and objectives.** For example, IIH participates in Tanzania Innovation Week 2023 and Sahara Sparks 2022 for commercialization strategies. In doing so, IIH underscores its commitment to harmonising its efforts with global priorities. The IIH also has partnerships with international innovation-oriented institutions and, in doing so, is engaged in global innovation ecosystems and collaboration networks, which enhances the IIH's alignment with global priorities and enables the hub to leverage international expertise and resources. However, despite these engagements, the hub is not well known in the broader regional and global space, which limits the extent to which it is able to leverage these arenas.

**The IIH also prioritises gender equality and youth empowerment.** The IIH emphasises active engagement with female youths as innovators and business owners. This aligns with global priorities on gender equality and youth empowerment, as outlined in the SDGs, particularly Goal 5 (Gender Equality) and Goal 8 (Decent Work and Economic Growth). By favouring the participation of female youths in innovation-oriented initiatives, the IIH contributes to promoting gender equality and empowering youth to drive economic growth and innovation.

## Alignment with funding partners' priorities

**The IIH's activities and achievements align with the development objectives of the Embassy of Switzerland in Tanzania and Fondation Botnar.** These funding partners have specific priorities related

to innovation, healthcare, and economic development, which align with the IIH's strategic focus areas, including innovation, gender equality, youth empowerment, and partnership development. The IIH's proposal to the SDC and Fondation Botnar confirms alignment with their objectives aiming to ensure that the program's activities contribute to the broader goals of their funding partners in supporting innovation and entrepreneurship in Tanzania.

### 4.3 Coherence

This section discusses the coherence of the project. More specifically, this details the project's alignment with its internal governance and management structures, as well as its external partnerships and the extent to which it collaborates with partners to ensure that its activities are complementary and avoid duplication.

#### Collaboration with partners

**Stakeholder interviews revealed the IIH partnership approach to be beneficial, allowing different partners to pool their expertise in one forum, and enhancing collaboration with external partners.**

This approach has several strengths. For example, the hub benefited from its affiliation with IHI, which provides renowned research expertise and strong public sector relations. This partnership leveraged academia-government linkages, enhancing the hub's credibility and outreach. Additionally, partners like Robotech and Bongo Tech & Research Labs which operate and manage the fabrication labs, bring expertise in fabrication, technical support, and hands-on training to the innovators and entrepreneurs to effectively utilise the equipment and facilities for prototyping and product development. This also empowers the ecosystem by equipping makerspaces and innovators with skills that extend beyond the project, promoting sustainability. Additionally, Villgro Africa's support plays a crucial role in nurturing and empowering startups at the hub, providing them with the resources, mentorship, and opportunities they need to succeed in the innovation ecosystem. Furthermore, partnerships with entities such as the SDC and the Botnar Foundation, have been key from a resourcing perspective, and the provision of technical expertise which have been instrumental in IIH's growth and success. Lastly, the partnership approach facilitated valuable connections, providing innovators with access to support networks. This has fostered a culture of learning and collaboration within the ecosystem by promoting mutual learning and continuous improvement.

*"The hub works through partnerships with maker spaces that help innovators in prototyping. They (maker spaces) provide their expertise and we learn from each other which makes it easy to work on our shared goals."*

- Stakeholder interview

**However, the partnership approach has faced a number of challenges that have limited its success.** For example, the stakeholder discussions with Kilombero Innovation Community, implementing partners and PDPs indicated that ownership of the hub has been a contentious issue, with some partners feeling that it belongs more to one entity than to the collective group. As a result of this, some partners have been disengaged, and there is a lack of ownership of it among the partner group. This lack of engagement is partially a result of a reported lack of communication within the executive committee and the rest of the partners. This communication gap has also extended to the governance structure, where transparency and updates on board meetings and decisions were felt to be lacking, contributing to the overall sense of disconnect among implementing partners.

*"While I know there's a board, and I believe someone from our side should sit on it, I'm unsure if we've been involved. I don't have concrete information on this, but I believe there's room for a more inclusive governance process. This would ensure that the board's activities are transparent to all"*

*implementing partners. From a management perspective, I see this as more of a communication gap than a management gap. Governance remains a mystery; for example, we have no insight into what occurred at the last board meeting. I suspect other implementing partners are in a similar position. Therefore, establishing a clear communication structure would greatly benefit all partners by providing visibility into the governance process.”*

- Stakeholder interview

**Each partner involved with the IIH has its own ongoing initiatives and priorities outside of the hub, which are not always aligned to the core activities and interests of the hub.** For example, there is a perception that some PDPs prioritise their own interests over those of the innovators, hindering collaborative efforts. Some PDPs were noted to pursue their own interests and use the equipment for their own purposes. Similarly, the IHI was noted as being impartial as a partner, whereby they would prefer to retain research and ideas for themselves to commercialise, rather than doing this through the hub. These conflicts in interest hinder the success of the hub, ensuring alignment with partners' objectives is crucial for maintaining coherence with other interventions and maximising the impact of collaborative efforts.

*“In partnerships with the PDP members, sometimes the members change their focus to thinking about themselves rather than the innovators. This is a normal occurrence, but it's just a matter of reminding them and telling them that they need to play their part for these innovators to thrive.”*

- Stakeholder interview

**Furthermore, collaborating with multiple stakeholders within the PDP has presented challenges, as some stakeholders expressed concerns about the lack of clear definitions of roles and responsibilities.** Despite the detailed delineation of roles and responsibilities in the Collaboration Agreement, stakeholders still perceive a lack of clarity due to challenges such as ambiguity in execution, communication gaps, overlapping responsibilities, changing dynamics, and differing interpretations. These factors contribute to a sense of uncertainty and confusion among stakeholders regarding their specific duties and expectations within the collaboration. Stakeholders reported instances of confusion and inefficiencies, indicating that some partners may not be fully following the agreed-upon responsibilities as outlined in the various documents. This non-adherence has resulted in delays and incomplete tasks. Harmonising and finding a common ground among partners has been difficult, particularly during the initial stages when leadership challenges hindered effective collaboration. Stakeholder interviews also indicated the need for a strengthened project management unit that would streamline coordination and decision-making processes between the partners and the executive committee.

*“The strength is our diversity and the unique roles each of us plays. However, the challenge lies in coordination. There's a significant gap that needs to be addressed. The project management office needs to be strengthened, and a clear leader must emerge. Consortiums require one organisation to take the lead to ensure ownership and direction.”*

- Stakeholder interview

**Harmonising priorities between partners has emerged as a critical challenge for the hub, as stakeholders report that divergent voices are pulling the hub in different directions, constraining its full potential.** Managing partner roles, accountability structures, and leadership direction has proven

challenging due to the diverse representation from funders, implementing partners, startups, and the IIH. These organisations operate with their own priorities, structures, and work approaches, which have not been seamlessly integrated into the hub's governance structure. This divergence is exacerbated by individualism among partners, further complicating efforts to align objectives and strategies.

**The decision-making process at the IIH faces a significant challenge: potential delays and inefficiencies.** While streamlined coordination and decision-making are crucial for IIH's effective operation, the governance arrangement adds complexity. The steering committee holds the highest authority in decision-making and administration. However, major decisions require discussion by the Executive Committee first before being actioned. This includes funding considerations, where the committee is initially consulted, followed by the funding partner who is part of the Executive Committee. This process, while ensuring thorough consideration, can lead to a push and pull effect due to competing priorities.

## Complementarity with other initiatives

**The IIH's unique focus on medical innovation and technology sets it apart from other hubs that are typically concentrated on software innovations.** Stakeholder discussions indicated that the IIH has strategically positioned itself to address a critical gap in supporting biomedical equipment in rural areas, particularly in the Ifakara region. IIH has demonstrated a clear understanding of the unique challenges faced by rural communities and has tailored its approach to meet these specific needs. This targeted focus sets IIH apart from other initiatives that have a more generalised approach to supporting innovation and entrepreneurship. IIH stands out as the sole innovation hub dedicated to advancing medical device innovation in Tanzania, emphasising its commitment to addressing specific healthcare needs in underserved areas. Similarly, the hub's efforts in the livelihood portfolio were noted as being unique in its location. For instance, it works to enhance rural livelihoods through social innovation, social entrepreneurship, and job creation in the Kilombero River Basin, thereby expanding the innovation ecosystem to rural Tanzania.

*"IIH has a niche of its own in supporting biomedical equipment. Based in the rural Ifakara area, IIH is dedicated to what others are not undertaking - prioritising rural regions."*

- Stakeholder interview

*"In recent years there has been a rise in awareness of innovation. Different donors have come up to fund innovations though most tend to fund the ongoing project. This makes them different from IIH who tend to fund an innovative idea, mentor you to production then the market."*

- Entrepreneur interview (translated from Swahili)

**The hub works with other partners by advocating for investment and collaboration in the health innovation space through workshops and events, and by developing strategies for the capacity development of startups.** According to activity and milestone reports, the hub organises startup innovation challenges and prizes to link startups to other sources of funding. The hub co-organised a workshop with AfriLabs and TAOTIC to train 27 technology entrepreneurs on resource mobilisation and fundraising. The hub also co-organised a two-day medtech conference in 2023 with Villgro Africa and Jaza Rift Ventures to bring medtech stakeholders together to network, policy dialogue, discuss funding, investments, and opportunities for collaboration in health innovation. These partnerships enable the IIH and ecosystem partners to build on each other's work and create synergies that strengthen collaboration for relevant programming and support to startups.

**Key characteristics that define an ideal implementing partner were flagged through the stakeholder consultations.** For example, an effective implementing partner embodies willingness to support innovation and young innovators, shares a common goal and vision with the hub, is open,



transparent and reflects on challenges by ensuring mechanisms are in place for course correction. Consultations noted that an effective implementing partner should not only think about their interests but those of their projects, working to ensure that project success equates to their own success. The IHI conceptualised the innovation hub, and hosted it, and it allowed them to steer the execution of the hub's activities. However, it was reported that there were examples of the IHI prioritising its own interests ahead of the hub. For instance, the initial design to have IHI develop medical research products that the hub can improve and commercialise created a conflict of interest whereby it was in fact in the best interest of the IHI to develop products and market these on their own. As such, there was little incentive for IHI to use the hub for these services, consequently limiting the throughflow of ideas to the hub. Although the hub has now become independent, the IHI is still an important partner to the IIH and avoiding such conflicts to the internal coherence of the hub are key for the hub's growth and sustainability in the health innovation sector.

## 4.4 Effectiveness

This section presents the IIH's performance and discusses the extent to which the hub's outputs and outcomes were achieved. As part of the findings, the key enabling factors, barriers as well as unintended factors that affected the project's performance are discussed.

### Key outputs and outcomes achieved

**After the first two years of slow progress, the hub has made significant strides towards the achievement of its outputs and outcomes.** The most recent activity and milestone reports that provide progress against indicators show that the hub has made progress in its achievement of results.

Table 4: Performance against strategic focus areas

Strategic focus	Performance
Strategic Focus 1: Enhance innovators and entrepreneurs to transform ideas with focus on health and livelihoods into marketplace impact-making products and services.	<p><b>On track</b></p> <p>The hub has supported entrepreneurs in the livelihood portfolio to scale their interventions and access catalytic funding for scalability. The PDP portfolio has developed relevant products some of which are in beta testing, while others have moved to clinical trials.</p>
Strategic Focus 2: Strengthen the Ifakara innovation hub's institutional capacity and sustainability.	<p><b>In progress</b></p> <p>The hub has created an attractive physical space that entrepreneurs and innovators can access. It has also formalised its registration as an independent hub which has the potential to improve its sustainability, however, the resource mobilisation and fundraising strategies have yet to be effected and approved by the executive committee.</p>
Strategic Focus 3: Strengthen Tanzania's innovation ecosystem to ensure innovation and entrepreneurship flourish.	<p><b>In progress</b></p> <p>Catalysing changes in ecosystems takes time but the hub's activities and goals are positioned to support the hub to strengthen innovation by supporting a niche market, providing equipment for product development, establishing partnerships with different stakeholders who offer a variety of expertise, and advocating for friendlier frameworks to support</p>

	innovation and entrepreneurship.
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**Despite limited data on startup performance as highlighted in the limitations section, program documentation and stakeholder engagement indicates that the hub has contributed to improved productivity and performance of startups.** According to interviews with entrepreneurs, the 18-month incubation training that they received has led to better business and financial outcomes for their startups, however, this could not be verified through secondary data. This training has enabled startups to improve their products and in turn, some have generated income and employment opportunities for young men and women in Tanzania.

*"Yes, I've successfully added value to my products, which has not only enhanced their appeal but also provided me with a sustainable source of income."*

- Entrepreneur interview (translated from Swahili)

**The rural livelihood portfolio has shown the greatest progress in contributing to the hub's outputs and outcomes.** According to program documentation and stakeholder interviews, the hub has successfully incubated seven startups in this portfolio, three of which are operating in the market. For example, one of the startups NovFeed, focused on recycling food waste into high-protein feed and organic fertiliser and raised a million-dollar fund after participating in the hub's Innovation Challenge in 2023.

**While slower, the PDP portfolio is in progress to achieve its objectives and contribute to the hub's outcomes.** Because the PDP mainly focuses on medical innovation and devices, the process of translating medical research into usable products and devices is lengthy. Thus, the expected outputs of these startups are yet to be achieved. However, these startups have made progress in one and half years of incubation support, and some are ready for clinical trials and testing.

*"I think the model actually has been working very very well. I mean, I know that there are people who are anxious because there are no products in the market yet, which is kind of funny because they're medical devices which typically take years and years and for the most part we actually have medical technology that is getting close to clinical studies and starting to think about manufacturing within a year and a half of starting the program. So, I think it has worked very well and just needs a few tweaks here."*

- Stakeholder interview

**The hub offered comprehensive assistance to entrepreneurs which was key to building their capacity and which they would not have been able to access on their own.** Rural entrepreneurs do not typically have access to innovation hubs and entrepreneurship training. Therefore, the support that the hub offers in the form of physical space to develop an idea into an innovation, tailored technical and business development support, product showcases, financial support in the form of seed capital and mentorship from industry experts goes beyond what other hubs in the region offer and was needed to support entrepreneurs' capacity.

*"Yes, since previously it was an idea but now I have the product to show [for] with the help of IHH. Though it hasn't received the TBS permit, I will proudly show the output. I worked hand in hand*



*with IIH from formulation of the name for my innovative product though it's not fully registered since funds have not yet been released to get the TBS approval. Apart from that, the hub has been so cooperative."*

- Entrepreneur interview

**The hub has contributed to the development of some key regulatory frameworks and national innovation policies in the country.** The hub's engagement with government agencies has contributed to changes in policies and frameworks to better support innovators and entrepreneurs in this space. From the annual operation reports, the hub engaged various agencies such as the Tanzania Revenue Authority in 2022 to discuss establishing a framework for taxation related agenda for the innovation sector. According to KIIs, the hub provided inputs to the development of a framework for medical devices evaluation and health innovation; second, TMDA and COSTECH established an MOU with the IIH to redefine regulatory guidelines for startups and entrepreneurship grant awards. These guidelines will support innovators across Tanzania to develop medical devices in the country, and lastly the IIH provided inputs to a draft national policy on innovation and a regulatory framework sandbox.

*"We collaborated with Sahara Sparks to host a session. It was more of a discussion around understanding the taxes that are imposed on start-ups' grants like double taxing. The challenge was that once the start-up is provided with grants, they are taxed for those grants...we thought that was unfriendly and therefore we had a discussion [with] Tanzania Revenue Authority...to discuss what the challenges are, what the regulations are...and trying to come up with a solution around it."*

- Stakeholder interview

**The partnership between IIH and government agencies has helped to bridge the gap between innovators and entrepreneurs' needs and government regulations.** Government bureaucracy is a major hindrance to startups and entrepreneurs seeking to register and develop innovations and products in the country. Entrepreneurs cited that the hub has created platforms such as the PDP symposiums where they can interact with government agencies and receive training on quality control from TBS and TMDA.

*"Of course yes, especially interaction with the government institutions. For example I had two projects with COSTECH. The first one was before joining IIH it was difficult to interact with these institutions but after joining IIH through their training and interactions in various lessons its easy with this second project [that] am innovating under IIH."*

- Entrepreneur interview (translated from Swahili)

**Despite government efforts to support innovation, there are still bureaucratic processes that exist in the registration and approval of innovation that hinder the advancement of innovations and technology.** During interviews with entrepreneurs and innovators, one of the most commonly cited challenges was the slow process for regulatory approvals of medical devices and technologies that entrepreneurs have developed.

**The capacity of partners has improved as a result of multi-stakeholder interactions with government agencies, development organisations and PDP partners.** The partners valued the exchange of ideas and knowledge transfer that took place amongst them. Partners mentioned that they would be implementing some of the tools and models they learned from the IIH.

*"We are modelling our next work plan around the work that we have done at PDP. So it's definitely not been one way. I mean this model works. We have seen it to accelerate the work that's being done by the startups. And so we're going to model around that, not exactly the same but we are taking our learnings and plugging them right back into our work."*

- Stakeholder interview

**The hub has provided adequate capacity building for staff, however continuous learning and training is needed to keep staff abreast of the changing nature of technology and innovation.**

According to stakeholders, the hub supports continuous learning for its staff and offers capacity building and training on relevant innovations and on the use of equipment and technology. The program has also set guidelines for the use of equipment. Stakeholders noted the significant changes in the way the hub staff supported and managed innovations. Notably Fondation Botnar's support enabled one staff member to receive training on the equipment which enhanced their skills and understanding making it easier for them to support the entrepreneurs better. However, some stakeholders felt that the hub must keep pace with rapid changes in the innovation ecosystem to effectively aid startups and innovators.

*"In general, the funders have enabled us to achieve so much in terms of helping the innovators that we help, to where we are right now. If it wasn't for them, I don't think we as the hub could have been able to reach or achieve the goals that we've been able to achieve."*

- Stakeholder interview

## Key enablers to achieving IIH outputs and outcomes

**Learning exchanges with other startups and organisations have been valuable for the entrepreneurs.** As part of its 18-month incubation program, the hub facilitates learning exchanges with organisations such as the EiR at the EPFL in Switzerland. This learning exchange provided valuable opportunities for startups to refine their innovations in readiness for market entry. Additionally, the hub supports entrepreneurs through national and regional forums for commercialization strategies such as the Tanzania Innovation Week, Digital Innovation Forum, Afrilabs and Sahara Sparks amongst others, which the entrepreneurs valued.

**The hub-organised symposiums, exhibitions and conferences in coordination with government stakeholders, development organisations and PDP partners were useful for building the entrepreneurs' capacity.** These forums illuminated entrepreneurs' knowledge and understanding of the regulatory environment for innovation, what requirements startups need to comply with and what agencies they need approval from. Importantly, these engagements also allowed the hub to advocate for friendlier frameworks to allow for the development of medical devices in Tanzania.

*"At most is the training the hub prepares and gives. It has a great impact on us as innovators towards achieving our goals. I have received training in Quality Management Systems twice. The hub also prepares exhibitions and conferences that have a positive impact in our innovation processes."*

*"Business concepts and ISO standards training, I think for me have been key lessons since I am innovating equipment to be used in the health sector. It's mandatory to understand these lessons very well so that I can become a good innovator and an entrepreneur in the market."*

- Entrepreneur interviews (translated from Swahili)

**Another key enabler is the community meet-up events that promote cross-learning and engagement amongst startups working on different solutions.** These enabled entrepreneurs to learn from each other and build a network of peer support. This support enabled the entrepreneurs to rely on each other through the entrepreneurship journey, which can otherwise be lonely and difficult. Although this was mentioned as a key enabler, entrepreneurs felt that more opportunities could still be explored to develop a stronger community of peer support.

**The hub's awareness campaigns drove some interest and engagement from innovators in Tanzania.** The hub hired a Community Engagement Officer to support brand building and awareness creation of the hub. This support has attracted interested innovators to the hub to attend its events through radio advertisements, fliers, and social media. Although this support was effective for urban innovators, the evaluation found that a more grassroots approach needs to be taken to onboard more rural innovators and locally-relevant solutions.

**The commitment of the Hub Director has played a critical role in driving the hub's strategic agenda and implementation of activities.** The current hub director was found to be highly committed to the hub's strategic vision. His commitment to the hub has enabled him to engage with government agencies and advocate for friendlier frameworks for innovators, engage partnerships with technical experts for capacity building of startups and makerspaces, facilitate partnerships with other hubs to promote innovation challenges and prizes and lead a team to implement the hub's core activities. Moreover, the hub director played an important role in building the capacity of hub staff and makerspaces. It was only recently (at the time of the evaluation) that an Innovation Program Lead was hired to support the program and support further capacity building of the hub staff. However, the multiple hats that the director held particularly in managing the hub, developing and strengthening partnerships, ensuring accountability of the hub to the executive committee, all the while building the capacity of hub staff was found to be time-consuming and challenging. This over reliance on an individual presents risks to sustainability should there be any personnel changes.

**The partnership with makerspaces has been beneficial to startups while positioning the hub as an enabler of innovation in this space.** The hub invested substantial resources into equipment such as 3D scanners and printers for innovators to utilise in the production of their medical devices. As no other innovation hub offers equipment for the production of medical devices, the hub has chartered a path for medical innovation that other technology hubs can learn from and follow. Entrepreneurs valued and appreciated the access to equipment which they would not have had without the hub's support. As well, they appreciated the capacity training from the makerspaces in the use of the equipment.

*"It helped us a lot since all we had was an idea but no equipment. Our incubators have enabled us to access equipment to process our idea into a product."*

*- Entrepreneur interview (translated from Swahili)*

## Key barriers to achieving IIH outputs and outcomes

**There were delays in the disbursement of funds to startups.** Many of the entrepreneurs indicated that there were delays in the disbursement of funds from the hub which hindered the implementation of their activities and eventually slowed their progress. However, the document review did also indicate that some startups may have also caused their own delays due to missed deadlines or incorrect reporting.

*"Delaying funds as per contract affects the innovative project. If the contract states that you should start in March and you start in May, this affects the whole innovative process."*

*“Procurement issues is the big challenge in the IIH because since we are in the health sector as I said earlier we require to use a certain quality of materials in our innovations, and such materials we get it from abroad and it takes time for sure, so the fund delays leads to many things getting stuck in the innovation process in general.”*

*“Yes, like 80% though it has helped me achieve my goal but there is delay of funds. For example, funds were released in April. But I think maybe because in any organisation, fund release involves a lot of processes. Now I am supposed to find funds to finance the inspections in the different government bodies/institutions like TBS so that the product can be released to the market.”*

- Entrepreneur interviews (translated from Swahili)

**As noted above, government bureaucratic processes hinder progress.** The government’s regulations and compliance systems posed challenges to the procurement of equipment and materials for medical product development leading to significant delays.

*“For now, operations have stopped because we are yet to get approvals from Small Industries Development Organization (SIDO) and Tanzania Bureau of Standards (TBS)...Though there have been delays due to the approval process, as soon as they are approved, we will proceed with our operations of value addition.”*

*“Sometimes we expect to receive a batch of fund extension maybe in September and you process for material order from abroad so when the funds delay, it increases port and warehouse charges and other minor issues may rise. This may also affect the project time frame.”*

- Entrepreneur interviews (translated from Swahili)

**The distribution of equipment among different makerspaces created concern among startups and stakeholders in the use and maintenance of this equipment.** Stakeholders felt that having the equipment spread out makes it challenging for the IIH to oversee the use of the equipment, where concerns were raised about the makerspaces using the equipment for themselves. Stakeholders highlighted a need for a more centralised approach where all equipment is housed under a ‘One-Stop-Shop’ which would enable the IIH to provide seamless services across its portfolio of startups and possibly rent out the equipment to other entrepreneurs in Tanzania.

*“One of the makerspaces has most of the big equipment such as CNCs and laser cutters. However, I feel that the way they’ve been using these machines doesn’t align with what was specified, possibly in the contract, even though I haven’t seen the contract. It seems like they’ve been using the equipment for their own benefit. We’ve been discussing the idea of having all the machines in one location, which would be much more convenient, rather than people taking advantage of the equipment owned by the hub. This makerspace is not utilising the equipment in the right way. Additionally, there are innovators who have complained that this Innovation space or makerspace is not providing adequate support.”*

- Stakeholder interview

**Another concern highlighted was the size of the equipment rooms or spaces at the makerspaces.** For example, medical device production requires that all the equipment needed for production be set up in its own separate room to adhere to TMDA’s quality and sanitary standards. Failure to meet this standard creates delays in the production process especially for startups in the PDP portfolio.

**Limited capacity to accommodate a higher number of startups.** The hub's facilities and internal staff capacity is noted as being insufficient to support the hub's strategy to onboard double to triple the number of startups it trained in the first phase. According to the activity reports, 12 startups have been identified for support in 2023/2024. However, to achieve this growth, the hub would need to invest more resources into startup and staff recruitment to effectively manage more entrepreneurs. This would also require more time and resources building awareness of its brand, attending other innovation events, and creating more partnerships in the ecosystem particularly with academia to increase its pipeline of startups and entrepreneurs.

**High staff turnover has resulted in a shortage of personnel to implement the hub's activities.** The location of the Ifakara hub in a rural setting has discouraged a lot of young talent who are interested in working for the hub. The majority of companies, hubs and organisations working in the innovation ecosystem are located in the cities where infrastructure such as electricity and internet is readily available, as well as established networks of innovators and funders. According to stakeholders, it has made it difficult to train and retain staff to implement the hub's interventions. As a result, the hub has experienced a shortage of key personnel needed to implement the hub's activities.

**Lack of adequate support to the hub director has constrained the director's capacity to juggle his responsibilities.** The hub director, on top of his day to day role in overseeing the hub's activities, is also managing partnership development with government and ecosystem players, brand building and awareness, networking and coordination of innovation events such as hackathons and his own capacity building as a postgraduate student. This has stretched the hub director, which poses risks to the sustainability of the hub's operations.

## Unintended factors that affected outputs and outcomes

**Some startups were dropped from the hub due to misconduct.** According to the startup progress report, the IIH terminated its support agreement with one of the startups 'due to persistent misconduct, lack of dedication, and the absence of a solid team to bring the innovation to life.' In addition, some stakeholders expressed that some startups were only focused on receiving the grant funding and not on developing their innovations into viable products for commercialisation. Although this may not have been foreseen, stakeholders suggested that going forward phased funding be provided on performance rather than a lump sum at the beginning of startup activities.

**External factors beyond the control of entrepreneurs affected project implementation timelines.** For example, entrepreneurs complained that the majority of the materials that they needed for the production of their devices are only available abroad. Before they procure these materials, entrepreneurs need samples of the materials in order to comply with TMDA's quality requirements. This process can take longer than expected between shipment of the samples and approval from TMDA. Additionally, once these materials are procured and shipped to Tanzania, they undergo further regulatory clearances with respective institutions, such as TBS, further delaying their production process. This results in pushing out project timelines impeding the hub from meeting its project deadlines.

*"IIH have [made] their things very clear but there are some issues which are external factors that hinder meeting our timeframe, its difficulty getting the supplier outside that can provide you with samples of the product but require you to order in bulk only. For example, in this fab lab where I am incubated, we order other materials abroad since we innovate in the health sector. We require the use of quality material in our projects as per TMDA requirements. So we face some delays in port clearance and other related issues sometimes. When it comes to meeting the time frame they don't understand the challenges which are beyond us."*

- Entrepreneur interview

**The hub has attracted entrepreneurs from different parts of Tanzania proving that the hub is meeting a niche need.** While the hub caters to startups in Ifakara and Dar es Salaam, it has also attracted entrepreneurs from as far as Mbeya to seek the facilities of the fabrication labs as these facilities are not located in Mbeya or the surrounding region. This also indicates the drive and commitment that entrepreneurs have to developing health innovations.

*“On my side, the difference is that when you are in urban areas you have a lot of exposure and other access like hubs and trainings compared to when you are in rural areas. For example, I am from Mbeya but in order to undergo my practices I have to come all the way to Dar es salaam to this Fab lab which you can't find in Mbeya or any other rural areas.”*

- Entrepreneur interview

## 4.5 Efficiency

This section provides an assessment of whether the hub's activities were conducted in the most cost-effective and timely manner to deliver its outputs, as well as whether there have been changes in the program design and how these have impacted the achievement of the IIH's objectives.

**The hub experienced significant delays at the onset of the project.** Between March 2019 and May 2021, there were little to no programmatic activities implemented. As discussed above, the mid-term review conducted in 2021 found that governance and operational challenges hindered the implementation of activities for various reasons. Firstly, there was little clarity of roles and responsibilities of the partners which made it difficult to agree on terms and work plans and deliver on the activities and outputs. Secondly, there were delays in the procurement of equipment. One stakeholder stated that it took longer than expected to procure equipment as it had to be brought in from overseas. Lastly, the inexperience of the former hub director limited the extent to which the activities were effectively implemented.

**The hub's funds were generally utilised in accordance with the annual work plans.** Although the hub experienced various challenges in its first two years of implementation, the project was able to make significant progress thereafter towards its objectives in a limited timespan. It established partnerships with various organisations and institutions to support startups, it procured equipment for the production of medical devices, and it incubated 12 startups in different stages of the innovation cycle. The hub disbursed funds to the startups to develop their ideas and prototype them, it provided incubation training enabling these startups to go on and scale their interventions while others were entering clinical trials for their medical products.

**The funding was more than enough to sustain the hub's activities for the initial grant period.** Due to the limited activity in the first two years, the hub experienced a low burn rate of resources. A substantial amount of funding was unutilised which led to a two year no-cost extension to utilise all its resources. All stakeholders noted that the overall amount of funding was more than sufficient for the hub and its associated activities.

**The hub's teaming at the beginning could have been more efficient.** One of the assumptions made at the beginning of the project was that a young team could manage and implement the hub's activities. According to stakeholders the hub sought to hire a young zealous team backed by a young leader who would be enthusiastic about the hub's strategy and goals. Despite suggestions to bring on board a more experienced team leader, at the beginning, the hub employed an inexperienced person who struggled to lead the hub as expected. In 2022, the current hub director was promoted given his experience and knowledge of the hub's interventions. Stakeholders indicated that, had the hub hired an experienced team leader, there would likely have been more progress in the first two years.



**A lack of senior industry experts on the ground as long-term experts limits the efficient adoption of technology and skills transfer for both the hub staff and makerspaces.** The hub staff receive continuous capacity building on innovation, technology and equipment but some of these pieces of equipment require precise technical capabilities such as biomedical engineering expertise. Thus, stakeholders noted that it would have been more efficient and effective for the hub staff and makerspaces to engage with senior industry experts to build their capacity to compete with other innovation hubs in the ecosystem, and in turn provide competitive incubation support to startups.

**As the host organisation, the IHI has been a crucial partner to the hub. However, the organisation's bureaucracy has hindered the operational and financial efficiency of the project.** The hosting arrangements of the hub are such that the human resources and financial systems sit within the IHI. As the IHI is a large research organisation, it has complex contract management systems. These contract management systems were noted as being the reason that there were delays in releasing funds to the hub, which led to delays in the disbursements of funds to the startups and PDP partners. This therefore hindered the implementation of activities and the progress of startups, some of which needed the funds to apply for TMDA approvals and import parts needed to build their devices.

**The lack of adherence to the terms of reference guiding the reporting structure for hub director was found to hinder the operational efficiency of the hub.** The performance review and management of the hub director is done by the IHI branch manager of Ifakara, an arrangement that was not put in place in the governance and management structure of the hub. Initially, the arrangement was that the hub director would report to the Director of IHI but due to their membership on the board, there was a conflict of interest. The lack of autonomy of the hub director from IHI was noted as having the potential to overly influence decision making in favour of IHI objectives and priorities.

**The hub does not have a systematic way to capture M&E data and this is not prioritised, making it difficult to track the logical flow of activities to outputs and eventually to the overall outcomes of the project.** M&E data is captured through quarterly activity work plans and annual milestone reports which do not effectively portray the performance of the hub at any given time. There is little consistency in the activities carried out in every quarter, and the associated measurements thereof, and the project itself has changed its outcomes and milestones, finally landing on three strategic focus areas in line with the hub's strategy. There are no targets or indicators set for these strategic focus areas, instead activities have been drawn out, each with activity-level targets and indicators that feed directly into the strategic focus areas. Due to the lack of indicators for the strategic areas, or any outcome-level indicators, the hub's M&E system lacks higher-level reporting, limiting the perspective of the hub's performance and impact. Moreover, there was no indication that the hub implemented the recommendations from the 2021 MTR to use the TOC to aid internal and external communication, planning, and reporting. As such, the value of a robust M&E system may not have been prioritised. When stakeholders were asked about the M&E system, most noted that it is not an effective system, and is not used for any decision-making processes.

*"[I'm] not sure there is a clear monitoring system"*

- Stakeholder interview

**The funding partners have been very flexible and adaptive towards the needs of the hub.** As mentioned, the hub underwent various iterations of its outputs and overall outcomes, and overall strategy. Through these iterations, the funders were flexible, for example, supporting the transition of the hub director from program manager, bringing on an experienced executive committee chairman to coach the director on leadership development, and enabling the shifts in strategy and associated measurement plans. The hub was also able to hire additional staff including a community engagement

officer and an innovation associate. The funders were also flexible and adaptive to adjustments to the hub's key performance indicators (KPIs), deliverables, budgets and generally the program's decisions.

## 4.6 Sustainability

This section presents the extent to which the outcomes of the project and the flow of benefits are likely to be sustained going forward and the possible risks to the longevity of results achieved.

### IIH Sustainability Strategy

**The hub has developed a sustainability strategy that envisages a pathway for self-sufficiency that does not fully rely on donor funding.** According to the annual work plans, the hub developed a concept note on "Scaling The Ifakara Innovation Hub for Health and Wellbeing in Tanzania 2024-2028" as part of its resource mobilisation strategy, which was ready for submission to potential funders. As well, the hub's strategic plan spells out a resource mobilisation strategy that includes registration of the hub as an independent entity, registration and establishment of an income generating entity that would serve as a venture accelerator. This accelerator will provide startups with financial resources, training and mentorship, and offer consultancy research and advisory services. The profits from this entity would then be donated to the IIH's non-profit program initiatives such as incubation and mentorship. Other ideas for financial sustainability include establishing a traditional debt-equity structure for startups enrolled into the hub's programs, and looking for other investment channels such as external groups to facilitate sources of pre-seed, seed, and growth stage funding for IIH startups. These are all positive strides in securing a more sustainable approach to the hub's financing strategy, however, as they have not yet been implemented, their effectiveness for sustainability is yet to be determined.

**Although resource mobilisation and fundraising strategies are in place, they have yet to be effected and approved by the executive committee.** It is commendable that the hub is working towards strengthening its institutional capacity and sustainability. However, it was reported that nothing is yet in place to instil a sense of confidence in the implementation of the new strategy. The activity and milestone reports indicate that the hub is ready to submit its concept notes on its resource mobilisation strategies to other funders beyond its current funding partners but this had yet to be shared with potential funders.

**The registration of the hub as an independent entity is a step towards the hub's self-sufficiency.** The mid-term evaluation of the hub revealed gaps in the governance and implementation of the hub. One of the main milestones out of this process was to develop a hub strategy that would build on and strengthen the planned initiatives of the hub to contribute to the health and livelihoods of the communities of Kilombero and Tanzania. Part of this strategy was to spin-off the hub from a project hosted by the IHI to a fully independent entity with its own governance and management systems. According to interviews and reports, the hub was registered in December 2023 as a trustee enabling it to set up both nonprofit and for-profit arms. At the time of the evaluation, progress was being made to develop standard operating procedures and administrative manuals.

**The development of the hub's resource and mobilisation strategy involved collaborative discussions with the executive committee members.** According to the minutes of the executive committee, the committee was involved in developing the IIH's funding sustainability strategy. Multiple discussions took place between 2022 and 2023 involving the development of the hub's strategic plan and resource strategy entailing the kind of activities the hub should undertake, what sources of funding should be considered to meet the hub's financial sustainability requirements and other operational strategies that can strengthen the hub as it transitions away from a project and into an independent entity.

**There is an opportunity for the hub to leverage the pipeline from the Small Industries Development Organisation (SIDO) which would support the hub's future pipeline sustainability.**



Agencies like SIDO work with the hub to incubate startups by providing them with technology development, training, marketing support, and capital to accelerate their startups. One of the concerns highlighted by stakeholders is that government agencies do not have enough capacity to support a high number of innovators. They therefore look to ecosystem players such as the IIH to provide this support and training. As a result of this partnership, there is an opportunity for the hub to leverage this pipeline of promising innovators and startups identified by SIDO.

*“If the hub has funded the innovators, the government should have the goodwill to support the innovators in their working areas. To create enabling policies and working environments for innovators.”*

- Stakeholder interview

**It is unlikely that the hub can function effectively without donor support for the next few years.** As a newly registered entity, the hub still has a lot of work to do in setting up governance and operational structures. It also needs to develop its pipeline of startups and action its financial strategies to diversify its income streams. As these strategies have yet to be actioned, the hub will need to rely on donor funding for the next couple of years as it transitions to its new status. Moreover, it is not intended that donor support would entirely cease but that it would make up a smaller portion of the total revenue of the hub.

*“So basically, I don't see any business model that is capable of sustaining it and beyond another grant from the funders. Which is a big risk for the future at this point, at least we should have seen some kind of a pathway for sustainability.”*

- Stakeholder interview

**The fabrication lab is a key component of the hub that is likely to be sustained after the project.** The fabrication lab hosts some of the production equipment that is used by startups to develop their prototypes. The investment in this equipment can provide an additional income stream for the hub if the hub decides to rent them out to other startups and ecosystem players.

## Risks to sustainability

**Recruitment of more hub staff, and additional capacity development of makerspaces is needed to promote the hub's sustainability.** As mentioned under [Section 4.3 Effectiveness](#), the shortage of hub staff impacted the implementation of activities. Given the hub's strategy to double its capacity in the next two years, more hub staff would be needed to support this strategy. Additionally, the dynamic nature of the innovation ecosystem necessitates continuous learning and capacity building of both the hub staff and the makerspaces to offer quality services to startups and innovators in rural and urban Tanzania.

**There are high expectations for startups particularly those in the PDP portfolio to provide evidence of the impact of their interventions.** This poses a risk to the sustainability of the project as it can lead to dropouts and low morale. Typically, medical innovations take time to produce tangible results. There are multiple quality control checks that startups must adhere to before their innovations or devices are approved such that they can go to market. Additionally, considerations such as fund delays and government regulatory processes also hinder them from making progress towards their goals and those of the hub. Placing pressure on startups to evidence their success before such a time that their innovations are ready, is a risk to the sustainability of the hub.

*“Since the product is not fully registered to enter the market. Innovative products require a lot of papers like TBS since it involves human health. If I don’t have all these I don’t think I will be able to push my product. I will also have to look for funds for more production since I had few samples and that will be hard.”*

- Entrepreneur interview (translated from Swahili)

**If previous challenges noted in the governance and coordination of partners resurface, the hub’s progress may be jeopardised.** As one stakeholder mentioned, it was only after two and half years that an organic partnership developed between the partners. During that period, it took a lot of effort to bring the partners together on the same page. If the same effort is not reinforced in the next phase, it could pose a negative impact on the hub’s strategic goals.

**If the Tanzanian innovation ecosystem loses momentum at a national-level, for example as a result of a change in administration, the hub is likely to be impacted.** Although unlikely, a change in government administration or leadership can slow the momentum made towards the development of frameworks, policies and regulations established to support innovation in the country.

**High turnover of the staff is a risk to sustainability.** As mentioned in the [Section 4.3 Effectiveness](#), the high rate of staff turnover will impede the hub’s progress and goals for operational and financial sustainability. Competent and dedicated staff will be needed to train and manage more startups that will be brought into the hub’s incubation program.

## 5 | Conclusions

The following section presents the conclusions stemming from the evaluation, these are presented according to the OECD-DAC criteria.

### Relevance

The IIH is relevant in addressing the needs of young entrepreneurs, both within Ifakara and Dar es Salaam. The needs assessments that are often conducted are particularly key in ensuring that the support provided by the IIH remains relevant to the entrepreneurs’ needs. Furthermore, the support provided by the IIH, in particular, access to makerspaces, access to capital, the technical skills building support, mentorship, and access to like-minded innovators were noted as being highly valued.

The design of the IIH and its components are relevant to achieving its objectives, which was enabled through the multi-stakeholder conceptualisation process. Through this consultative process, the hub was designed to build upon existing initiatives, while reducing duplication of efforts. Additionally, the design of the IIH activities align well with the IHI and Kilombero Innovation Community’s strategic goals, where the IIH is able to leverage the scientific findings of the IHI and share partner spaces such as the TTCIH.

Lastly, the IIH is highly aligned to Tanzania’s national priorities, particularly in the areas of innovation and economic development. The IIH also supports Tanzania’s national health objectives and national focus on human capital development and skills development. At a global-level, the IIH aligns with global innovation priorities, which has been enabled by the IIH’s engagement in global innovation platforms and partnerships with international innovation-oriented institutions. Lastly, the IIH’s focus on gender equality and youth empowerment is strongly aligned with the SDGs and similar global objectives.

## Coherence

The IIH's partnership approach is valuable, providing access to a pool of expertise and access to more technical capabilities than could be achieved in a more independent approach. This partnership model has benefited from its association with IHI as it provides renowned research capabilities and strong public sector relations. Additionally, partnerships with academia, government and partners such as Robotech and Bongo Tech & Research Labs have not only bolstered the hub's credibility and outreach but also facilitated the transfer of knowledge and skills to entrepreneurs. Furthermore, partnerships with entities such as the SDC and the Botnar Foundation, have been key from a resourcing perspective, and the provision of technical expertise which have been instrumental in IIH's growth and success.

Despite the strengths of the partnership approach, it also faces challenges. Namely, there are differing perceptions regarding the hub's ownership, whereby some PDP and Kilombero Innovation Community partners feel that it belongs more to one entity than to the collective group. Additionally, working with multiple stakeholders has proven challenging, with many stakeholders perceiving a lack of clear definition of roles and responsibilities among the PDP partners, and clear lines of communication, which have hindered true collaboration. Similarly, having too many partners can dilute accountability and responsibility mechanisms without clear governance arrangements. Lastly, each partner has their own objectives and priorities, which can be conflicting to those which are in the best interest of the IIH.

Despite this, the IIH's distinct focus on medical technology innovation sets it apart from other hubs within Tanzania that are typically concentrated on software innovations. This unique focus, together with its focus on rural innovation, and its tailored and targeted support to innovators, makes the IIH a valuable player in the Tanzania innovation ecosystem.

Lastly, the internal coherence of the IIH is dependent on the implementing partner. Characteristics of an effective implementing partner include willingness to support innovation and young innovators, a common goal and vision with the hub, adaptable, and aligned incentive structures. While the IHI embodies many of these characteristics, there was a misalignment in the incentive structures in the way it was initially conceptualised. As such, there was little incentive for IHI to use the hub to commercialise products, whereby there was more incentive to do this independently.

## Effectiveness

The hub has made significant progress towards the achievement of its strategic focus areas, namely enhancing innovators and entrepreneurs to transform ideas with a focus on health and livelihoods into marketplace impact-making products and services, strengthening the Ifakara innovation hub's institutional capacity and sustainability and strengthening Tanzania's innovation ecosystem to ensure innovation and entrepreneurship flourish. Data on how these outputs translate into changes in startup performance is limited, however, there are examples of where the hub has contributed to improved productivity and performance of startups. Performance within the rural livelihood portfolio has been more than that within the PDP portfolio. The hub has incubated seven startups in the rural livelihoods portfolio, three of which are operating in the market, while in the PDP portfolio none of the startups are yet operating in the market. Typically the reason for this difference is the lengthy processes and time required to translate medical research into usable products and devices.

The IIH has supported entrepreneurs in increasing their technical capacity and skill sets. Services such as physical space for idea incubation, tailored technical assistance, business development support, product showcases, seed funding, and mentorship from industry professionals, were noted as being key to the innovators' increased capacity. Additionally, the IIH has contributed to shaping key regulatory frameworks and national innovation policies by collaborating with government agencies. Lastly, the capacity of IIH's partners has improved as a result of multi-stakeholder interactions with government agencies, development organisations and PDP partners, where some mentioned that they would be implementing some of the tools and models they learned from the IIH.

Some of the factors that have enabled the successes of the hub include its focus on learning exchanges, which provide startups with valuable opportunities to refine their innovations and prepare for market entry. Similarly, through national forums for commercialization strategies, entrepreneurs have gained key insights into the regulatory environment and compliance requirements. Community meetups and events have promoted cross-learning among startups, fostering a network of peer support which was felt to be critical for navigating the entrepreneurship journey. Additionally, the hub's strategic brand-building efforts and commitment of the Hub Director have been key in driving engagement and partnerships. Lastly, collaborations with makerspaces have provided startups with essential equipment and training, which has been key for their product development.

There have also been a number of factors that have detracted from the IIH's effectiveness. Innovators reported delays in the disbursement of funds which delayed progress. Additionally, limited space in the equipment rooms and makerspaces has hindered progress, for example, as a result of not adhering to TMDA's quality and sanitary standards. Government bureaucracy and complex procurement processes have also led to delays in obtaining equipment and materials for medical product development. Additionally, there were challenges in communication between the executive committee and partners regarding coordination and decision-making due to diverse stakeholder priorities where representation from funders, implementing partners, entrepreneurs and the IIH has proven to be difficult to manage. The hub also experiences high staff turnover and inadequate support to the hub director, which has had implications on its ability to effectively implement its activities and support entrepreneurs.

## Efficiency

For the first two years, there were significant delays to implementation and considerable underspend. There were a number of reasons for this, however, one of the key factors was the staffing strategy, with a young team who was unable to efficiently implement the project. Following the midterm review, the hub underwent a teaming change, which led to a more efficient use of resources and the project's burn rate improved. Some bureaucratic processes within the host organisation, the IHI, hindered operational efficiency, impacting fund disbursements and decision making processes. There is also a perceived conflict of interest with the IHI overseeing the hub's director, having implications on the decisions and processes of the hub. Lastly, the hub's M&E system is not an effective or efficient mechanism for tracking project progress and is not used for decision making. Despite these challenges, the hub's funding partners have displayed flexibility, supporting strategic shifts and enabling key staff hires, showcasing an adaptable approach crucial for continued efficiency and success.

## Sustainability

The hub's Strategic Plan for 2023-2028 presents a sustainability strategy that aims to make the hub self-sufficient and, eventually, independent of donor funding. This includes plans for a venture accelerator and various other financial sustainability avenues. While commendable, these strategies have not yet been unimplemented, and as such, the effectiveness thereof is yet to be determined. Despite this, progress has been made towards the hub's independence, including the registration of the hub as an independent entity. Key considerations for the operationalisation of the new strategy and the future sustainability of the hub include maintaining a solid pipeline of potential innovators, collaborating with agencies like SIDO for this pipeline, developing and operationalising clear governance arrangements, including the roles and responsibilities of the various partners, and adequately staffing the hub. Donor funding will likely remain crucial during the hub's transition period and initial stages as an independent entity.

## 6 | Recommendations

Based on the findings from the evaluation, this section presents recommendations for the hub going forward. These recommendations take into account the fact that the hub has become an independent entity and are cognizant of the hub's Strategic Plan for 2023-2028.

### Strategic recommendations

#### **Recommendation 1: The hub should continue with its current focus on young entrepreneurs and rural innovation.**

The hub is a valued and relevant player in Tanzania's innovation ecosystem, and in particular in the areas of medical technology and rural innovation. It is a unique player in this space and fills a niche need for rural, medical technology innovation support. The support it provides is relevant to the needs of young entrepreneurs and, in particular, rural entrepreneurs. The evaluation recommends that the hub continues engaging women and young innovators and entrepreneurs in Tanzania, in the medium to long term in alignment with the country's development vision. Special attention should be given to conducting regular needs assessments of rural and urban development needs to enable relevant innovations to be developed to meet local needs rather than global standards.

#### **Recommendation 2: Elevate the hub's profile in the innovation ecosystem, at a regional and global level.**

While the hub is well known in the Tanzanian innovation ecosystem, it is not well known more broadly. While it participates in some regional and global events, it can do more to raise its profile on these stages. By increasing its profile here, the hub will have more access to resources, technical expertise, financing options and be better positioned to support its entrepreneurs. Therefore, the evaluation recommends that the IIH focuses more efforts on building awareness of the hub in the medium to long-term. This could be through social media and more traditional media campaigns such as BBC Innovators, feature articles in entrepreneurship magazines such as Forbes Africa, and developing partnerships with ecosystem networks such as Impact Hub that has a global network of partners and entrepreneurs involved in inclusive and sustainable innovation, including in Tanzania. These kinds of partnerships can generate the much needed pipeline of entrepreneurs and financial support that could support the sustainability strategy of the hub. Moreover the hub should consider full or co-funded grants and scholarships to fund attendance of global events rather than rely on the general programmatic budget. Majority of event organisers are keen to attract attendees from the developing countries and offer various incentives for the same. In turn, this could elevate the hub's profile as it would entail submitting multiple proposals to attend these events, thus creating visibility of the hub. The evaluation recommends that the Hub Director leads these efforts together with the Innovation Program Lead and Community Engagement Officer. It would also be useful for the hub to hire a Partnerships Lead in the medium-term to take on more of the partnership engagement and ecosystem-building responsibility from the Hub Director.

#### **Recommendation 3: Strengthen the peer-to-peer engagements within the hub.**

Entrepreneurs valued the peer-to-peer support and opportunities for cross learning. These opportunities should be expanded upon in the next phase of the hub. This could include more frequent networking sessions, peer-learning convenings and intentional learnings dissemination activities from the hub. From a resource efficiency perspective, these could be hosted at the PDP, or even virtually. These events should include entrepreneurs who have been involved in the hub and have graduated who can also share their learnings post-commercialization. In the short-term, the evaluation recommends that the hub implement a community portal or alumni networking platform for entrepreneurs to engage with. This portal can provide information on startup events in the ecosystem, funding opportunities and information on other relevant initiatives being implemented beyond Ifakara

and Dar es Salaam. This would need to be maintained and updated regularly by the Community Engagement Officer.

## Operational recommendations

### **Recommendation 4: The hub should maintain its partnership approach but harmonise partners' priorities and strengthen communication between the partners and the executive committee.**

Currently a key challenge to the hub's operations is a lack of understanding of each partners' roles and responsibilities as a result of communication gaps between the hub and partners. Although a collaborative framework exists for key partners such as Bongotech, Robotech, Villgro, EPFL, IIH and IHI, there is a need to harmonise the roles, expectations and priorities of the other partners, as this would also subsequently build ownership of the hub's vision and commitment of the partners to its objectives. Moreover this would be crucial given the transition of the hub to its own independent entity. In the medium to long-term, the evaluation recommends that each partner needs to be onboarded in a more deliberate manner, where their roles and expectations are more clearly delineated, and the governance structures of the hub better communicated to them to prevent misalignment with the hub's vision and the partners expectations.

### **Recommendation 5: The executive committee should have equal weighting in their decision making power and should be a small, targeted committee.**

The Strategic Plan 2023-2028 indicates that there will be five people that comprise the executive committee, namely one innovation hub registered user, one proven startup entrepreneur, one funding partner, one program implementer and one representative from the host organisation. As the hub grows, there may be room to add additional members to the committee. However, given the findings from the evaluation regarding the number of partners and their roles and responsibilities, there is potential for too many stakeholders to dilute effective, unbiased decision making. The hub should keep the number of individuals in the executive committee small and targeted. The evaluation recommends that the executive committee maintain the committee structure as outlined in the strategic plan for the medium-term (until 2028), where it can review the addition of partners in relation to the growth of the hub in size and revenue.

### **Recommendation 6: The hub should develop a performance monitoring system that enables learning and informs decision making.**

At a hub level, a more detailed performance monitoring system should be developed that clearly articulates the activities, outputs, outcomes, strategic focus areas and their corresponding indicators, targets and measurement tools. This should go beyond what is included in the 2023-2028 Strategic Plan, to include more outcome-level indicators that measure what happens as a result of the hub's activities. This should also include guidance on how the monitoring data is fed into programmatic learning and decision making processes. The hub should also develop consistent monthly check-ins with entrepreneurs. These check-ins could be email updates to the executive committee and the hub on their progress status - what is working well, what is not working well and what support they need. In the short term, the evaluation recommends the hub to conduct research on established frameworks like the IRIS metrics from the Global Impact Investing Network (GIIN) to measure and manage impact. Moreover, the hub should implement monthly check-ins with entrepreneurs and develop a repository of these email updates that can be easily reviewed.

### **Recommendation 7: The hub should gradually move away from its host arrangement and develop its own administrative processes and disbursement mechanisms that are independent from the IHI.**

Given the hub is an independent entity, it needs to develop strong operational and administrative processes for programmatic sustainability, as the hub will no longer rely on IHI for administrative support. Progress was being made to develop standard operating procedures and administrative



manuals. The hub needs to maintain this momentum to ease its transition from a project to a standalone entity. The evaluation therefore recommends the hub develop its administrative and operational processes in the short-term and then gradually move away from IHI's administrative support to its own systems within the short to medium term. The evaluation also recommends that once this transition is complete, that the funding partners directly fund the hub, and not IHI. However, this does not imply that the relationship between IHH and IHI is severed, rather that IHI provides advisory and research support to the hub.

**Recommendation 8: The hub should increase its staffing contingent, ensuring there is sufficient technical capacity to implement the hub's activities, especially as it scales.**

A key risk to the hub's sustainability is the high turnover of staff. The hub needs to ensure that human resources and project management systems are in place to review and manage staff performance. In line with the Strategic Plan 2023-2028, the hub needs to conduct a salary review to ensure competitive market rates that attract top talent who can effectively manage and implement the hub's activities. The hub may need to also consider providing candidates with additional incentives to move to Ifakara. In the short-term, the evaluation recommends that the hub conduct a market assessment of salaries of current and future staff positions to understand labour market expectations, as well as incentives that may attract talent to Ifakara such as learning exchanges with other hubs in the region or with PDP partners mainly EPFL and the University of Basel. This will also enable the hub to plan its annual resources accordingly. The hub should conduct these reviews yearly to ensure that it aligns with salary expectations factoring inflation and other costs.

## Sustainability recommendations

**Recommendation 9: The hub should pursue other funding partners in the short-term and, in the longer-term, more sustainable and diverse financing streams.**

The hub is currently reliant on the Swiss Embassy and Foundation Botnar for funding. Going forward, the hub should pursue other funding partners to increase its funding base. An initial scoping has been presented in Annex 4 for the hub's consideration. Potential funders need to have clear alignment with the objectives of the hub and need to have clear roles and responsibilities. In the short-term, the evaluation recommends firstly, that the hub should continue to lean into the partners such as Villgro for investor readiness support as most of the partners have a network of resources the hub could leverage. Secondly, the hub should conduct an in-depth market study to understand the opportunities and gaps in startup financing in Tanzania and the instruments available in the market for early stage financing. These instruments will vary with the hub's legal status and goals. In Africa, the good practice for startup financing is blended finance as it mitigates the risks associated with providing capital to startups that typically lack consistent financial records and business processes that would be mandatory requirements for traditional financial providers. In the longer term, the hub should seek to be less reliant on donor funding, and pursue more sustainable financing options, which could include options such as renting out equipment to other entrepreneurs in the ecosystem, taking an equity share in the startups, conducting technical and business development training to other entrepreneurs in the ecosystem at a fee, and licensing patents for additional financing, however the hub should take time to carefully research this as an option.

**Recommendation 10: Linked to the above recommendation, the hub should continue to work with flexible and dynamic funding partners, this is increasingly important to remain cognisant of as it pursues additional sources of funding.**

A key challenge in health innovation is the duration of time it takes to translate medical research into usable products and devices. There are multiple stakeholders, processes and regulatory approvals that need to be in place before medical devices can be commercialised. Funders and partners need to understand that impact and results in this sector may not materialise in the short-term but that the results in the long-term will have significant impact on the health and livelihoods of the communities

they seek to serve. Additionally, partners should provide flexibility in funding to allow for adaptive management towards risks and unforeseeable circumstances that are inevitable in this space. Therefore, the evaluation recommends in the medium to long-term that the funding partners should consider restructuring their grant support to impact investing options or blended finance options such as convertible grants that convert into equity or repayable loans when the startups are growing and not ready to set a valuation, provide guarantees to private sector funders to de-risk lending to startups particularly in the growth stage. As well, as the hub seeks more support, it should consider seeking philanthropic funding that provides flexibility of financing options that can attract private sector investment.



## Annex 1 | Evaluation Framework

Evaluation Criteria	Draft Evaluation Questions	In-depth desk review	Interviews with key stakeholders	Interviews with entrepreneurs
<b>Relevance (Are we doing the right things)</b>  To what extent are the objectives of IIH consistent with the evolving needs and priorities of young people, country needs, implementation partners, global priorities and key stakeholders including funding partners?	How well do the IIH objectives respond to the needs and priorities of the market and the targeted communities? What similarities or differences can be seen between rural and urban settings?		X	X
	How has the target group and key stakeholders been involved in the design, implementation, monitoring and accountability systems of IIH?		X	X
	Is there alignment between the objectives of the programme and global priorities, national priorities or funding partners' priorities?	X	X	
	What are the enablers and barriers for designing IIH to be relevant: external factors; programme design process, management and governance arrangements; participation of relevant stakeholders?		X	
	Is the programme strategy, objectives, interventions and assumptions appropriate and adequate for achieving the planned results?	X	X	X
	What has been, if any, the degree of IIH's adjustment/ trade-offs between different priorities or needs according to local context? Is it sufficient? Why or why not?	X	X	
<b>Coherence (How well does the intervention fit?)</b>  Is the programme working coherently internally (given the governance and management	<b>External Coherence (partners)</b>			
	How does IIH work with partners (co-funding, strategizing, advocacy, etc.) in the same context?	X	X	
	To what extent has the programme been able to build on other initiatives and create synergies with other programmes and partners?	X		

arrangement) externally partners)? and (with	What are the strengths and challenges of the partnership approach used by IIH (with the host organisation, with makerspaces, with innovators, with entrepreneurs, with the executive committee, with the funders, with the government)?	X	X	X
	How has IIH avoided duplication of efforts with other initiatives/ partners in the same context?	X	X	
	How can partnerships and coordination be strengthened towards IIH outcomes?	X	X	X
	<b>Internal coherence (same institution)</b>			
	Is IIH (implementing partner) the most appropriate partner; are there others to consider?	X	X	
	How appropriate and effective were the governance and management arrangements of IIH? <ul style="list-style-type: none"> <li>How did this positively or negatively affect the IIH programme management and implementation (communication, coordination, role clarity, accountability, duplication, power and decision making, autonomy, implementation)?</li> </ul>	X	X	
	Is there a clear understanding of roles and responsibilities and accountability by all parties involved?	X	X	
	Being hosted under IHI, how well did the IIH activities complement other IHI activities at regional and country level?	X		
	What changes, positive or negative, has the IIH brought about for its collaborators?		X	
<b>Effectiveness (Is the intervention achieving its objectives?)</b>	What have been the key outputs and outcomes achieved so far (short to medium term) for the IIH? Considering: <ul style="list-style-type: none"> <li>Progress towards changes in national policies</li> </ul>	X	X	
To what extent have the IIH results (outputs and	<ul style="list-style-type: none"> <li>Changes in institutional management and governance capacity/practices</li> </ul>	X	X	

<p>outcomes) been achieved or are expected/likely to be achieved? (i.e., the current status of programme performance)</p>	<ul style="list-style-type: none"> <li>Capacity of collaborators/ partners</li> </ul>		<b>X</b>	<b>X</b>
	<ul style="list-style-type: none"> <li>Productivity of supported entities/ individuals               <ul style="list-style-type: none"> <li>Documented changes in product quality</li> <li>Documented changes in profit margins</li> <li>Documented process efficiencies</li> </ul> </li> </ul>	<b>X</b>		
	<ul style="list-style-type: none"> <li>Capacity of staff (knowledge, skills)</li> </ul>		<b>X</b>	<b>X</b>
	<p>How effective is each of the programme's interventions to support the above-mentioned changes?</p> <ul style="list-style-type: none"> <li>What IIH interventions/strategies worked well to support the above-mentioned changes? Why?</li> <li>What IIH interventions/strategies did not work well to bring about anticipated changes? Why?</li> </ul>		<b>X</b>	<b>X</b>
	<p>How have unintended factors affected the outcomes and could they have been foreseen and managed?</p>		<b>X</b>	<b>X</b>
	<p>What have been the key enablers and barriers to achieving the IIH results: programme design, context (e.g. social norms, government institutional capacity, natural disasters), funds, programme implementation, IIH institutional arrangements?</p>		<b>X</b>	<b>X</b>
<p><b>Efficiency (How well are the resources being used)</b></p> <p>How economically have resources/ inputs (funds, human resources, time, etc.) been used to create results?</p>	<p>Were all committed financial resources actualized?</p>	<b>X</b>		
	<p>Were the available technical and financial resources adequate to fulfil the programme plans in this first phase? Could the same have been achieved with less resources?</p>	<b>X</b>	<b>X</b>	
	<p>How has the role of the host organisation (IHI) helped or hindered operational and financial efficiency?</p>	<b>X</b>	<b>X</b>	
	<p>To what extent has IIH been implemented in the most efficient way? Where has</p>	<b>X</b>	<b>X</b>	

	there been an opportunity to function more efficiently?			
	Which strategies/approaches used by the IIH were less efficient?	<b>X</b>	<b>X</b>	
	Monitoring, Evaluation and Learning (MEL): <ul style="list-style-type: none"> <li>How is the M&amp;E system implemented? Is information systematically collected, collated and analysed?</li> </ul>	<b>X</b>		
	<ul style="list-style-type: none"> <li>How effective is the programme's M&amp;E system and indicators in capturing relevant results?</li> </ul>	<b>X</b>		
	<ul style="list-style-type: none"> <li>How is M&amp;E data currently used by programme staff?</li> </ul>	<b>X</b>	<b>X</b>	
	<ul style="list-style-type: none"> <li>How have the lessons learnt from other innovation hubs been integrated into this phase of IIH?</li> </ul>	<b>X</b>	<b>X</b>	
	What adaptive management processes were put in place to respond to the challenges experienced in programme implementation?	<b>X</b>	<b>X</b>	
<b>Sustainability (Will the changes/ benefits last?)</b>  To what extent have the positive outcomes of the project and the flow of benefits likely to continue after IIH ends?	What strategies have been used to enhance the sustainability of the IIH? (e.g. how has ownership been built, registration, plans for sustainability and scaling, institutional structures and mechanisms, funding mechanisms) <ul style="list-style-type: none"> <li>Has a participatory methodology been applied as a means to achieve a larger degree of ownership by the key partners?</li> </ul>	<b>X</b>	<b>X</b>	
	<ul style="list-style-type: none"> <li>What concrete advances have been made by IIH to diversify funding? Eg. onboard new financial supporters, generate their own income etc.</li> </ul>	<b>X</b>		
	<ul style="list-style-type: none"> <li>To what degree have the IIH activities utilised government systems for sustainability?</li> </ul>	<b>X</b>	<b>X</b>	
	To what extent is there national ownership and commitment to the programme? How do national ministries and local governments understand their role in sustaining the IIH?		<b>X</b>	

	What programme components appear likely to be sustained after the project? How?	<b>X</b>	<b>X</b>	<b>X</b>
	What are threats to sustainability of the programme components beyond the IIH? How can these be mitigated?		<b>X</b>	<b>X</b>
	What needs, if any, exist for further capacity building and support to promote the likelihood of sustainability?		<b>X</b>	<b>X</b>
	Where should IIH focus its interventions in order to achieve sustainable impacts for better livelihoods and health outcomes?		<b>X</b>	<b>X</b>
<b>Lessons Learned</b>	Based on the outcomes of this first phase, what are the key lessons learned that stakeholders can take away on health and livelihood innovations, programme implementation, monitoring and evaluation and impact assessment?		<b>X</b>	<b>X</b>
	What good practices have been learned from the programme that can be applied to similar interventions in the future?	<b>X</b>	<b>X</b>	
	How should the programme shift/change to increase the likelihood of achieving its intentions (i.e. product commercialization, partnership creation, resource mobilisation)?	<b>X</b>	<b>X</b>	<b>X</b>

## Annex 2 | List of documents reviewed

Document type	Name of document
Strategy	IIH Strategic Plan 2023-2028 Scaling Innovations Final 15.04.23
	IIH Visioning Report 2020
Policy & Research	IHI - Scaling-up Innovations to Maximize Public Health Impact of Scientific Interventions
	Tanzania Startup Ecosystem Status Report 2022
	The United Republic of Tanzania Digital Health Strategy July 2019-June 2024
Proposal	Proposal to Fondation Botnar- IMG-19-004_Amendement - fully signed
IIH Operational Plans and Budget Reports	Annual Work-Plan and Budget for 2021 - 2022 Ifakara Innovation Hub
	Annual Work-Plan and Budget for 2022 - 2023 Ifakara Innovation Hub
	Annual Work-Plan and Budget for 2023 - 2024 Ifakara Innovation Hub
IIH Periodic Progress Reports	Annual Operation Report July 2022-June 2023
	Ifakara Innovation Hub's Milestone Report December 30 2023 - Swiss Embassy TZ
	Ifakara Innovation Hub's Milestone Report December 30 2023
	IIH Startup Progress Report - By 30-05-2023
	IIH's Milestone Report - By December 30th 2022 - Botnar Fondation
	IIH's Milestone Report - By December 30th 2022 - Swiss Embassy
	IIH's Milestone Report - By June 30th 2023 - Swiss Embassy
	Legal Opinion on the Registration Options for Ifakara Innovation Hub
	Quarter 13 - Activity and Milestone Summary Report (July - September 2022)
	Quarter 14 and Quarter 15 - Activity and Milestone Summary Report(October 2022 - March 2023)

<b>IH Steering Committee Meetings</b>	Minutes for Quarter 10 EC Meeting Held On 10th October 2021 Online
	Minutes for Quarter 11 EC Meeting Held On 14th January 2022 Online Fully Signed
	Minutes for Quarter 12 EC Meeting Held On 29th April 2022 Online _ Fully signed
	Minutes for Quarter 13 EC Meeting Held On 19th July 2022 Online - Fully signed
	Minutes for Quarter 14 EC Meeting Held On 22nd November 2022 - Fully Signed



## Annex 3 | List of Stakeholders Interviewed

Stakeholder type	Organization/Department	Name of stakeholder
Implementing organisation	IIH	Masoud Mnonji
		Rachel Magodi
		Abbas Sykes
		Adella Salum
	IHI	Dr. Honorati Masanja
		Frederick Masanja
Donor	Embassy of Switzerland in Tanzania	Esther Majani
		Viviane Hasselmann
	Fondation Botnar	Zur Oren
		Hassan Mshinda
International organisations and institutions	UNDP/UNCDF - Funguo Programme	Joseph Manirakiza
	University of Basel Innovation Office	Douglas Haggstrom
Executive Committee member	Local youth/innovator	Esther Mbwambo
	Chair of the Executive Committee	Omar Bakari
Government of Tanzania representatives	Small Industries Development Organization (SIDO)	Grace Makoye
Product Development Partnership members	BongoTech	Paul Nyake
	RoboTech	Shaukatali Hussein
		Abdullah - GM Robotech Labs
		Winnie Wangari
		Wambui Gachiengo
	Villgro Africa	Wilfred Njagi
Start-ups Ifakara Rural Livelihood Portfolio	Mushroom Growers	Juliana Njombo
	Dada Lead	Getrude Mollel
	Mkaa Safi	Upendo Ngusa
	Rice Wine and Yogurt	William Mbaguli
	Pamoto Poa	Jacqueline Mushi
	Aquaponics - Soilless Cultivation	Lugendo Goda
Start -ups PDP Portfolio	Pluslife CPAP (Bubble CPAP)	Sandra Somi
	Neohealth Innovation (Infant Radiant Warmer)	Rehema Saadani
	Mama Check	Amina Nyuri
	Dead body Lifter (DBL)	Joshua Joasi

	Dental Crowns	Abbas Mshinda
Additional stakeholders	Tanzania Training Center for International Health (TTCIH)	Dr. Fabian Mghanga
	St. Francis Referral Hospital (SFRH)	Fr. Godfrey Hongo

## Annex 4 | Innovation landscape in East Africa

The innovation landscape in East Africa has been growing fast as it keeps up with the dynamic nature of technology and innovation. The table below presents a snapshot of the funding partners working in East Africa to support startups and innovators with early stage funding and technical support.

Table 6: High level overview of funders in East Africa's innovation landscape

Investors	Thematic interest	Type of funding/support
<b>Impact investors for startups</b>		
Eleos Social Venture Fund	The Global Partnerships/Eleos Social Venture Fund, LLC (SVF) is an impact-first fund investing in early-stage social enterprises to expand opportunities for people living in poverty in Eastern Africa.	Investment capital, board-level advisory support
Montpelier Foundation UK	Supports organisations that offer sustainable and scalable solutions for low-income groups in sectors such as education, agriculture, and energy	Grants, investments, and debt capital
Fondazione Opes	<p>An Italian-based impact investor focused on businesses that can achieve significant and lasting social impact through economically viable business models across sectors including waste management, access to electricity, small-scale agriculture, water, education, and health.</p> <p>Opes-Lcef, through Restart East Africa, supports East African impact SMEs affected by the Covid-19 emergency by injecting patient capital, recoverable grants, structured as zero-interest loans with flexible and customised repayment terms. The fund targets four key sectors: clean energy, sustainable agriculture, education/skilling, mobility/transportation.</p>	Patient capital, recoverable grants structured as a 0% interest loan
Sorenson Impact Foundation	The Sorenson Impact Foundation invests around the world in companies that have developed scalable, innovative and potentially disruptive solutions to the world's most pressing needs including access to quality healthcare and education, workforce development, sanitation, water, and clean energy.	Program related investments, grants
GrowthAfrica	Early-stage ventures with high growth	Acceleration, strategic

	potential	support
Seedstars Africa Ventures	Seedstars Africa Ventures is an early-stage venture capital fund investing in high-growth companies active across Sub-Saharan Africa.	Equity investment, grants, and acceleration program
Janngo Capital	Janngo is the first African Social Start-up Studio that leverages technology and capital to build digital ecosystems in high growth sectors by developing customer-centric and value-added services for African customers, enabling African SMEs to scale their enterprises, while creating jobs and empowerment opportunities for youth and women.	Early Stage Venture, Late Stage Venture, Seed
Norrskén	Norrskén22 is a tech growth fund, backed by an international network of tech founders, partnering with exceptional entrepreneurs in scaling disruptive businesses. They provide growth capital and deep strategic value to founders in Africa, while positioning them for international expansion and impact. One of their focus areas is medtech.	Series funding
Delta40	Delta40 is a Venture Studio & VC fund investing in, building & scaling innovative ventures led by founders on the frontlines in Africa. Beyond capital, they provide hands-on support from experienced operators & investors to drive growth from idea to pan-African scale.	Series funding
Factor[e] Ventures	Uses a thesis-based investment strategy to identify critical market needs in energy, agriculture, mobility, and water. They then use a technology-forward analysis coupled with a deep understanding of the economic contexts in which they work to identify investment opportunities. Where they don't find solutions to the identified problems, they pull together world-class talent with technologies to incubate and then scale internal concepts.	Seed funding, access to a network of fellow founders
Grand Challenges Africa	The Grand Challenges Africa (GC Africa) initiative seeks to promote Africa-led scientific innovations to help countries better achieve the Sustainable Development Goals by awarding seed and scale-up grants to the continent's most impressive solutions. GC Africa supports big, bold impactful innovative ideas that have a potential for impact, scale	Seed, scale-up grants

	and sustainability.	
Founders Factory Africa	This is a pan-African company investing in transformative early-stage venturers, from founders with an idea to ventures raising a seed round.	Equity capital (ideation, pre-seed, seed), catalytic capital
<b>Networking support and philanthropic partnerships</b>		
HealthXL	Connects corporations, startups, and investors in the digital health space for partnership and innovation growth.	Global digital health community, networking, and collaboration
J&J Impact Ventures	J&J Impact Ventures supports a global portfolio of early-stage companies and partners working to accelerate access to affordable and quality healthcare for all. They are fueled by the potential of impact entrepreneurs to create new market-based solutions to address health inequities. Because when social impact is at the core of the business model, if the company is sustainable, then the impact is sustainable.	Impact partner supporting ventures such as Penda Health in Kenya, Villgro Africa and Village Capital
Village Capital	Fuel the growth of sustainable and impactful businesses by unlocking capital for early-stage entrepreneurs who are building emergent solutions for social, economic, and environmental challenges around the world.	Fund management, sourcing and due diligence
Rockefeller Foundation	RF Catalytic Capital is a charitable offshoot of The Rockefeller Foundation. RF Catalytic Capital (RFCC) enables foundations, impact investors, businesses, governments, and other like-minded funders to combine their resources to build funding solutions for social impact and bring about transformational change. Incorporated in September 2020, RFCC is a critical new tool designed to scale up solutions across a range of key commitments: Food, Health, Power & Climate and Reframing the Global Financial System.	Grant capital
USAID	USAID is leveraging the promise of innovation, technology and research to bring about positive change and solve some of the world's most pressing challenges. USAID partners with USAID missions, entrepreneurs, small businesses, researchers, universities, technology companies, government, civil society, faith-based organisations, and	Grants, cooperative agreements, contracts

	development professionals to keep the Agency on the forefront of science and technology, incorporate breakthrough innovations, and apply the best tools to emerging priorities.	
Bill and Melinda Gates Foundation	The Foundation works in agriculture and nutrition, healthcare delivery, life sciences, inclusive financial systems and women's innovation. For example, the Foundation scales next-generation public health products that bridge the health equity gap for those who need it most. Their investments in health-tech and health channel solutions aim to improve delivery of affordable, high-quality healthcare in developing countries.	Grants, program-related investments
MillerCentre for Entrepreneurship	Invests in catalysing the growth of women-led and locally led social enterprises.	Full spectrum of capital, and uses a variety of funding instrument that fit the needs of early-stage founders
PATH	Like the IIH, PATH's medical devices and health technologies program leads the vanguard in translating innovative ideas into breakthrough health solutions. They accelerate access to affordable, appropriate health solutions to protect and treat the communities that need them most.	Grants, partnerships



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