National Digital Innovation Profile Technical Workshop: An ecosystem approach to mapping strategies and recommendations for accelerating digital transformation in Mozambique

31 March - 1 April 2025

Maputo, Mozambique

Website: www.itu.int/en/ITU-D/Regional-Presence/Africa/Pages/EVENTS/2025/mozambique-DIP-workshop.aspx

WORKSHOP TAKEAWAYS

Summary

This document summarizes the activities of a two-day co-creation workshop conducted in Maputo, Mozambique on 31 March and 1 April 2025. The technical workshop brought together over 40 stakeholders from across government, private sector, academia, financial institutions, innovators, youth, and entrepreneurial support networks to:

- Review the current state of Mozambique's digital innovation ecosystem.
- Identify gaps and opportunities in the ecosystem to unlock.
- Evaluate the role of different stakeholder groups in supporting the entrepreneurial ecosystem.
- Co-create recommendations that can accelerate innovation.

The workshop was facilitated by ITU Expert, Lucy Antrobus.

1. Introduction

In today's volatile, uncertain, complex, and ambiguous (VUCA) world, countries must build resilient and adaptive innovation ecosystems to stay competitive and respond effectively to rapid technological shifts. Innovation does not happen in isolation—it thrives within ecosystems where public sector, industry leaders, academia, investors, support networks and entrepreneurs collaborate to drive progress. A well-functioning digital innovation ecosystem enables nations to harness emerging technologies, unlock economic opportunities, and foster sustainable development. A systemic and ecosystem-driven approach is essential for identifying gaps, aligning national priorities, and co-creating solutions that support a nation's vision for the digital future.

Mozambique wants to develop a thriving digital innovation ecosystem to support its national goals that include economic diversification, inclusion and participation of different demographics into the economy, sustainability of the environment and infrastructure, and prosperity of the nation. As a key starting point to further digital expansion, an assessment of the current landscape and ecosystem maturity is needed. Mozambique's Digital Innovation Profile for Mozambique is being developed by the International Telecommunication Union in collaboration with the Ministry of Communication and Digital Transformation (MCDT) of Mozambique and local stakeholders of the digital ecosystem.

A Digital Innovation Profile (DIP) is a country-specific report that provides a comprehensive assessment of a nation's digital innovation ecosystem. It evaluates the capacity, maturity, and readiness of a country's innovation landscape, identifying strengths, development areas, and strategic opportunities to accelerate digital transformation. The DIP serves as a key assessment tool to inform

national policies, develop ecosystem initiatives, strengthen ICT industry competitiveness, and drive economic growth through innovation.

2. Workshop overview

A key milestone in the DIP assessment process is the co-creation workshop. The National Digital Innovation Profile Technical Workshop was held in Maputo, on 31 March and 1 April 2025, engaging a total of over 40 stakeholders from across government, private sector, academia, financial institutions, innovators, youth, and entrepreneurial support networks. Hosted and facilitated by ITU in partnership with MCDT, the two-day workshop engaged a diverse group of stakeholders to:

- Review the current state of the country's digital innovation ecosystem.
- Identify critical gaps and opportunities for unlocking ecosystem potential.
- Co-create actionable recommendations to accelerate innovation and ecosystem growth.
- Encourage an ecosystem-thinking approach to impact and accelerate innovation in the country.

The workshop also serves to initiate and inspire capacity-building initiatives that foster innovation and digital transformation in Mozambique. The workshop leveraged a variety of ITU tools including the Ecosystem Assessment Canvas, the Ecosystem Maturity Map, and recommendations for the Strategic Priority Matrix.

3. Opening remarks

The workshop was opened by the Director of Communications in the Ministry of Communications and Digital Transformation, Horacio Parquinio, and by Jesús Laviña, Head of Infrastructure and Investments and Private Sector in the Delegation of the European Union to the Republic of Mozambique. Christine Sund of the ITU Regional Office for Africa provided background to the 'Laying the Foundation for VaMoz Digital!' project under which the two-day workshop was organised.

4. Co-creation findings: Current state of the innovation ecosystem

Below is presented a high-level overview of the current state of the innovation ecosystem, according to perspectives shared by key actors in the ecosystem, for each of the seven pillars of the Ecosystem Assessment Canvas (see **Annex 1**).

1. Vision and Strategy: There is a lack of clarity on what the national vision is with regards to digital innovation, and a perception that there is a strategy, but implementation and accountability needs strengthening: a more explicit direction would unite stakeholders to work together towards a common goal. In addition, key issues needing resolution to enable digital transformation in Mozambique, and potential areas to facilitate this growth, were identified with clear consensus.

2. Infrastructure: There are gaps in overall hard infrastructure such as road connectivity, electricity supply and internet connectivity, especially in rural areas; these should be a key focus for development as well as to enable nationwide inclusion in the digital agenda. There was a wide array of soft infrastructure discussed that supported entrepreneurs, however there was consensus on the opportunity for better coordination to meet collective market needs versus individual mandates.

3. Talent: There is a sense that it is the quantity of opportunities, rather than the availability of talent, which is a rate-limiting factor. More could be done to better serve existing talent active in the digital innovation ecosystem by providing continuous support at all phases of the entrepreneurial life cycle, as well as by assessing gaps and efficiencies of support programmes in the ecosystem.

4. Capital: A variety of contrasting dynamics exist inside the capital flows into innovation in Mozambique which vary based on the sector. This includes a reduced presence of venture capital and other typical entrepreneur financing available, in contrast with a notable presence of international donors, and some restrictors of financial innovation in connection with the requirements and agility of the regulatory body.

5. Markets: Market potential in Mozambique exists, however the low rates of digital literacy, in combination with the difficulties of digital entrepreneurs to scale inside Mozambique (due to a variety

of factors including access to consistent support and capital, and some unclear legislative policies) affect the realisation of this potential in the short-term.

6. Communities: There is a diaspora of different self-organising communities across Mozambique that are motivated and engaged by innovation, however there is a sense that resources are one of the key rate-limiting factors for these communities to thrive. In conjunction with this, further attention should be placed on the inclusion of digital communities outside of key urban hubs.

7. Policy: ICT policies need reform, and in particular data and cybersecurity, however good efforts and progress have already been made towards policy reform by the government, but limited communication is available to sensitize the wider ecosystem on these advancements.

5. Co-creation findings: Challenges and opportunities

This section presents challenges and opportunities identified by participants, for the ecosystem to tackle. Some elements of these are included below.

Various gaps in the ecosystem have been identified across the different DIP pillars such as:

- An ambiguity around what the government strategy is as regards digital innovation, and accountability of implementation.
- A lack of funding directed towards digital innovation and a lack of venture capital funds available in Mozambique.
- The complexity and cost for startup incorporation in Mozambique.
- The lack of digital infrastructure, maintenance, and know-how to support the infrastructure sustainability and inclusion in rural areas.
- The lack of digital education at all stages of educational curriculum, affecting the overall market size and rate of innovation.

In contrast, strengths and untapped potential in the country have been explored, such as:

- Appetite for innovation, and desire to contribute to the ecosystem's evolution, from actors across all stakeholder groups in the country.
- Self-organising local communities and communities run by youth across the country.
- Best practices coming from private sector entities that upskill young talents to make them job-market fit.
- The national innovation competition soliciting the participation of innovators from across the entire country, at all levels of education.
- Existing new ICT policy reforms that have been put in place, but not yet widely communicated to the ecosystem, so the positive impacts have not yet been felt.
- New momentum building around upcoming tech hubs that aim to foster collaboration between multiple stakeholder groups simultaneously.

The tables displayed during the workshop to identify the Ecosystem Maturity Matrix overview, and the Ecosystem Maturity Map, are included in Annex 2.

6. Co-created recommendations

Recommendations to contribute towards building increased innovation in the country were proposed. These relate to improved innovation dynamics, increased innovation capacity, increased knowledge sharing, talent empowerment, and ecosystem collaborations. Overall, suggestions range from policy reform and dissemination, to capital directed specifically towards digital innovation, to entrepreneurial ecosystem efficiency, and to increased collaborations between academia and the private sector.

On a national level, there is an appetite for receiving a more prescriptive vision on digital innovation from the government, with clear focus areas, clear lines of responsibility, and clarity on the implementation roadmap.

In terms of infrastructure, it was advocated for reinforced hard infrastructure systems, particularly in rural areas, including roads, energy and electricity, and a basis to develop digital infrastructure. Similarly, increased internet accessibility, particularly in rural areas, accompanied by programs that build capacity and awareness around usage of the internet.

On the side of talent, upskilling innovators in critical business and entrepreneurial skills and mindsets would complement existing technical know-how, with academia play a leading role in this. Likewise, more proactive attention should be given to integrating digital education for learners at all ages throughout school, as well as diversifying the range and accessibility of subjects on offer at university, in terms of both technical courses and entrepreneurial or innovation studies.

In parallel, to amplify initiatives related to entrepreneurs, designate one dedicated government agency to be solely responsible for entrepreneurship, at all phases of its lifecycle.

Overall, stakeholders generated a rich range of insights in correspondence with the key pillars addressed and focused discussions around the present state-of-play in the ecosystem, the desired future, and key gaps to address to get there.

7. Workshop outcomes

The workshop successfully advanced Mozambique's DIP by fostering collaboration among key stakeholders. Key outcomes include:

- **Current state mapping:** The co-creation workshop engaged key ecosystem players in developing a holistic assessment of the current state of the innovation ecosystem in Mozambique.
- **Ecosystem maturity assessment:** The discussions laid the groundwork for forming a picture of the ecosystem's current maturity in regards to innovation.
- **Recommendations:** Clear strategic initiatives were identified, with good cohesion across different thematic groups, to build towards the desired future state in the ecosystem.
- **Stakeholder engagement:** The cross-sector and interactive style of the intervention formed new bridges across a diverse range of actors with complimentary streams of work, and made existing innovation efforts more visible.
- **Consensus and mutual understanding:** Clear consensus was built around key themes of digital innovation and what is needed, by reviewing ecosystem needs from a variety of perspectives, which likewise increased mutual understanding between players coming from different sectors.
- **Appetite and momentum building:** Appetite was built for further opportunities for different stakeholder groups to come together and collectively work towards a combined vision.

8. Next steps

An immediate next step in the DIP process includes the elaboration of a high-level view of initial findings that will be presented to the stakeholders during a virtual DIP stakeholders webinar. This will be the opportunity for stakeholders of the digital innovation ecosystem to provide feedback and validate findings. Following the DIP stakeholders webinar, a full detailed DIP draft report will be produced and shared with the Government for detailed review and feedback. After this step, the publication process of the DIP report will be initiated.

8. Additional Resources

Stakeholders can deep dive into the detailed methodology of developing a DIP or choose to take a self-paced, free-of-cost certificate course at ITU Academy.

- **Innovation-related documents:** ITU-D Digital Innovation Ecosystems: Unlock the potential to accelerate digital transformation of society.
- **Detailed methodology:** Bridging the Digital Innovation Divide — A toolkit for developing sustainable ICT-centric ecosystem projects.
- **Training Course:** Innovation Ecosystem 101: Fundamentals on building competitive and innovative ICT-centric ecosystems.

Annex 1: Ecosystem Assessment Canvas

Image: Ecosystem Assessment Canvas Activity I: Current State Mapping

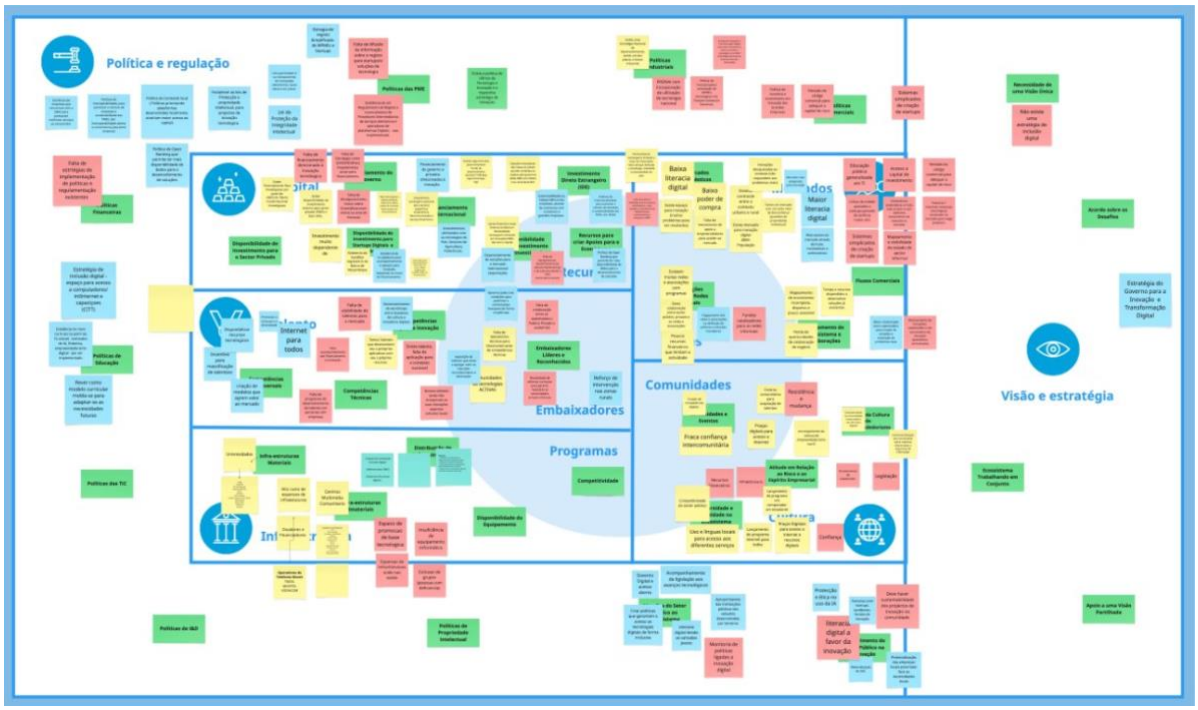


Image: Ecosystem Assessment Canvas Activity II: Identification of Gaps and Recommendations

Annex 2: Ecosystem Maturity Map

Image: Ecosystem Maturity Map: overview

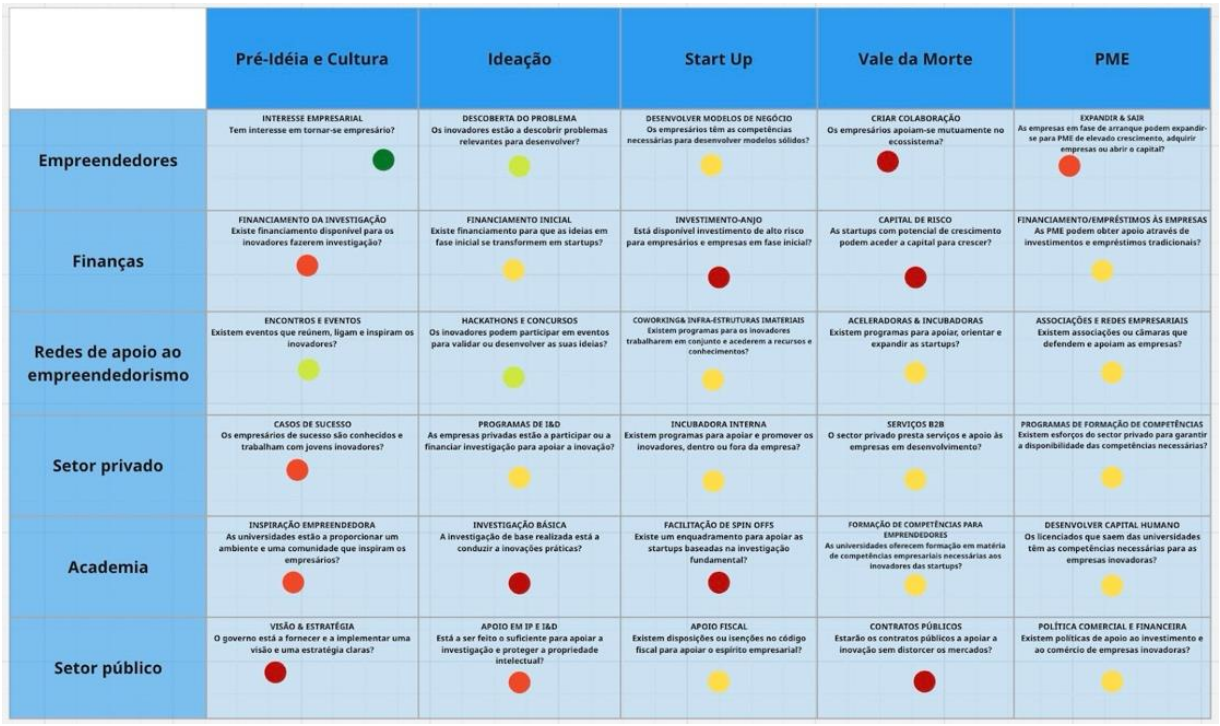
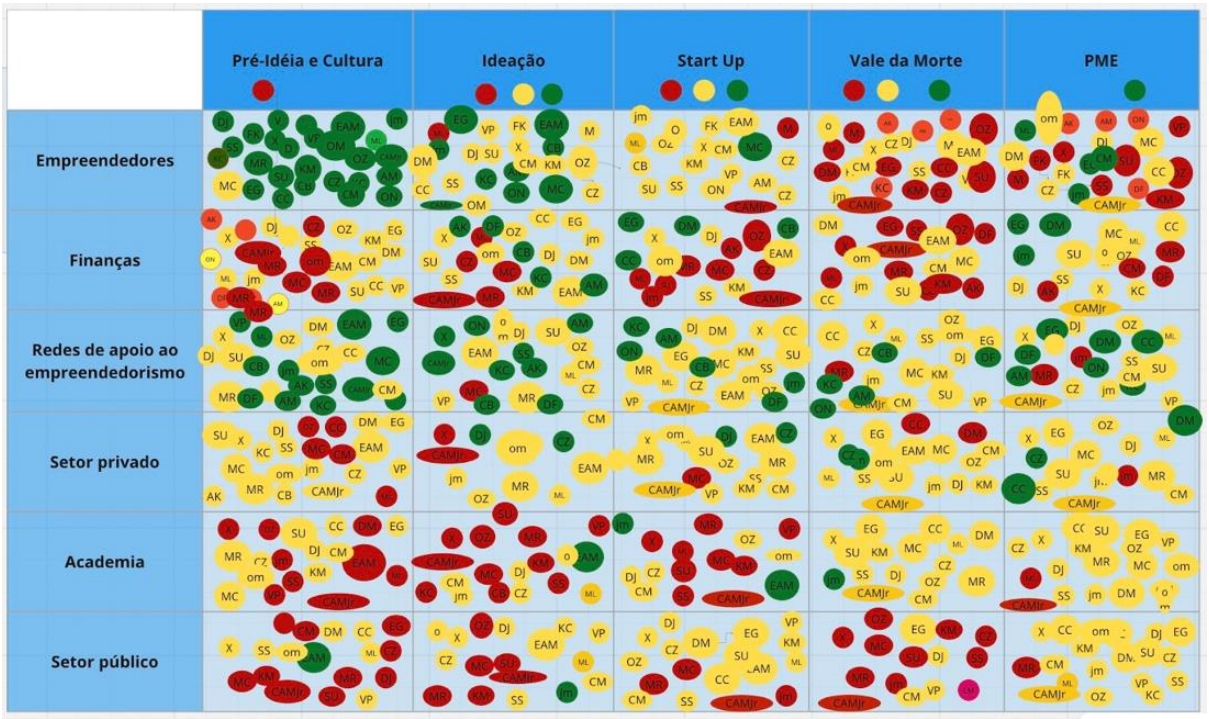


Image: Ecosystem Maturity Map: consensus building



Annex 3: Workshop presentation

Harnessing human centric digital transformation for sustainable development and inclusive growth in Mozambique

'Estabelecendo as bases para o VaMoz Digital!'

'Laying the foundation for VaMoz Digital!'

National Digital Innovation Profile Technical Workshop

31 March – 1 April 2025

DIP Technical workshop Website

https://www.itu.int/en/ITU-D/Regional-Presence/Africa/Pages/EVENTS/2025/mozambique-DIP-workshop.aspx

Two-day co-creation workshop | DIP Objectives

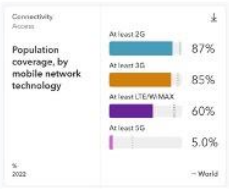
1. CO-DEFINE: an accurate assessment of the digital innovation ecosystem in Mozambique, across core pillars and actors
2. BUILD CONSENSUS: on current state, gaps, and opportunities, to define collective pathways forward
3. IDENTIFY: key gaps in the ecosystem to co-create pathways for development

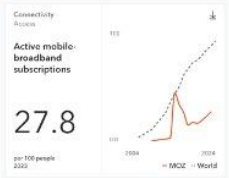
Understanding the big picture | Innovation Journey

Yet.. how to get everybody aligned and moving in the same direction at the same speed...

Mozambique's connectivity at a glance

Mozambique, located in southeastern Africa, is strategically positioned along the Indian Ocean, bordering several key regional players. It is a developing, low-income country with a population of approximately 33 million.





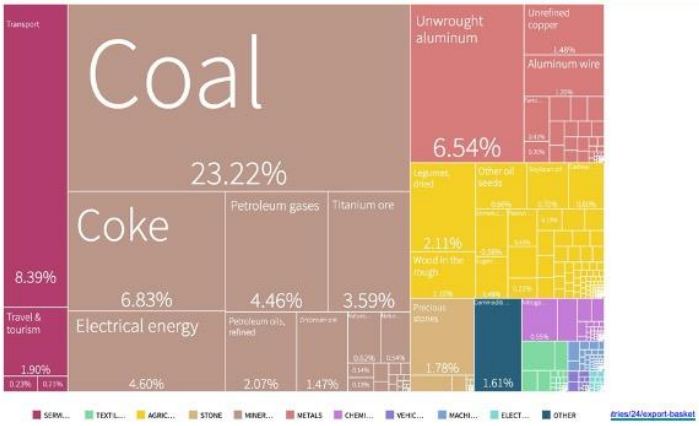
Individuals using the Internet	19.8%
Households with Internet access at home	10.8%
Mobile broadband subscriptions per 100 inhabitants	27.8

ITU Development Index [2024]	Score: 32/100
Global Innovation Index [2024]	Rank: 128/133
Human Development Index [2024]	Rank: 41/193

Let's take a comparative look at innovation capacities

	South Africa	Zimbabwe	Zambia	Mozambique	UK	Canada	USA	Singapore
ITU Development Index (2024) Profiled among 170 countries	84	48	56	32	94	89	97	98
Global Innovation Index (2024) Ranked among 133 countries	69	118	116	128	05	15	03	04
Human Development Index (2024) Ranked among 193 countries	110	159	153	183	15	18	20	09
Global Entrepreneurship Index (2024) Profiled among 137 countries	04	-	-	–	05	05	05	-
Global Gender Gap (2024) Ranked among 146 countries	18	52	92	27	14	36	43	02

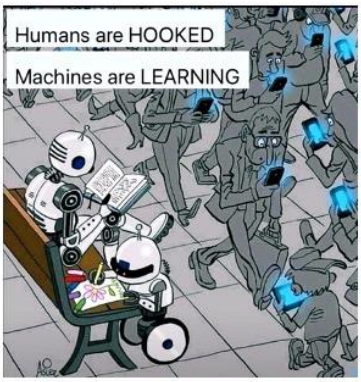
Futures key sectors are missing from exports



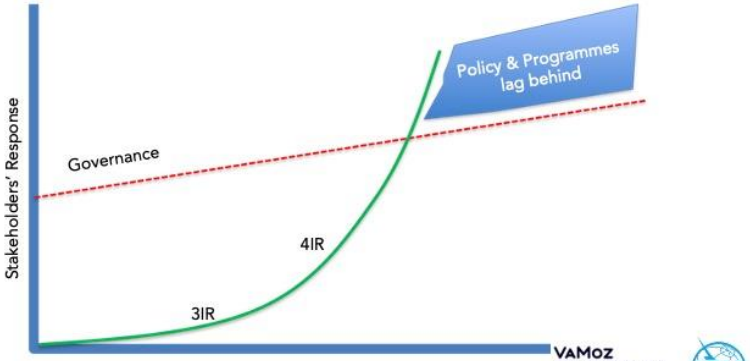
Mozambique's journey to being innovation-driven

Source: M. Porter Competitive Strategy for Countries & WEF classification

A key challenge is the inability to absorb tech

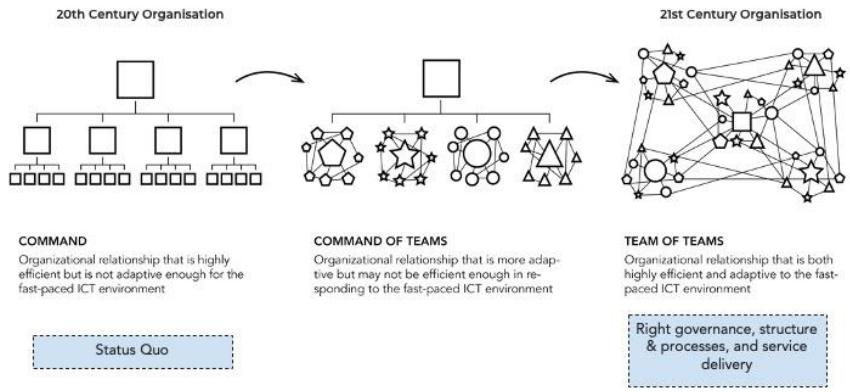


Policies and programmes lag behind

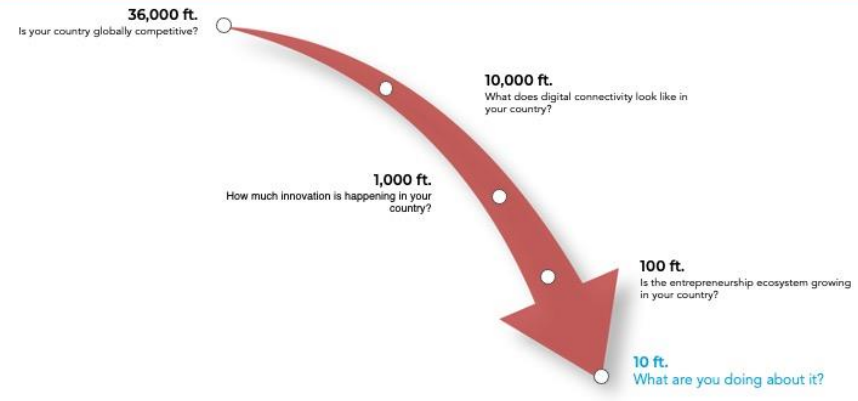


IR = Industrial Revolution

Institutions need to adopt and evolve

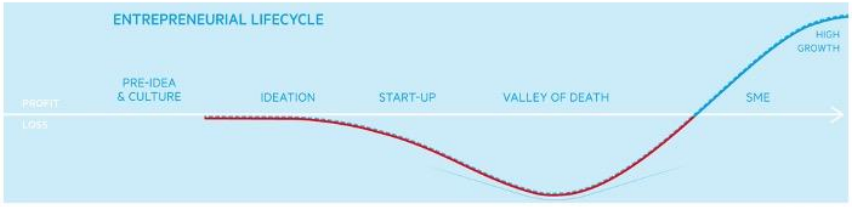


As stakeholders, what are we doing at 10ft?

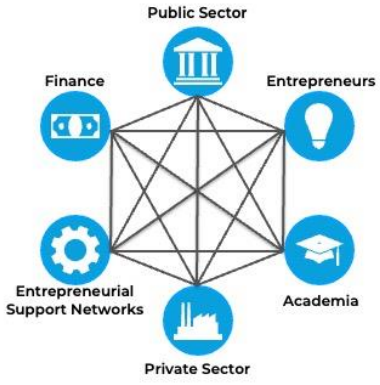


An innovation-driven journey towards high growth

Our biggest failure in digital transformation is the failure of our innovation ecosystems in creating social and economic impact.



Challenge 1: Lack of collaboration in the ecosystem.



Challenge 2: Scarcity of appropriate support

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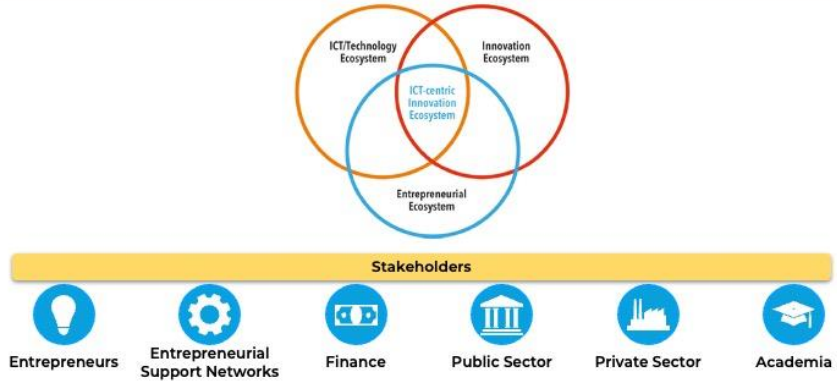
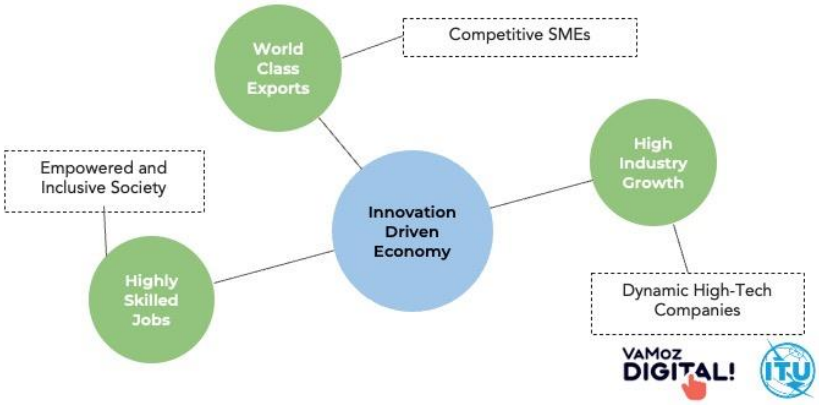
Three engines of growth are not working together



Challenge 3: There are missed opportunities



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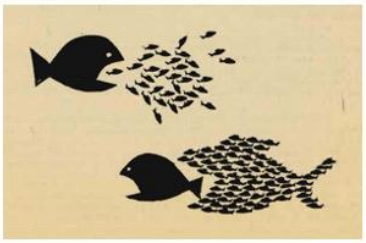
Problem is amplified by global economies

Your ecosystem

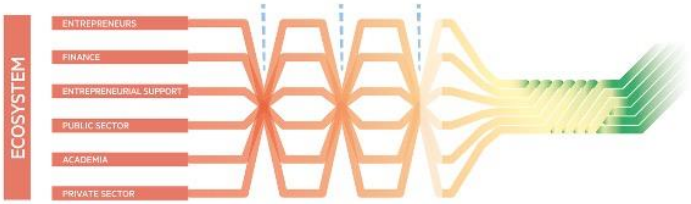


A stronger connected ecosystem

An ecosystem is composed of stakeholders, their environment and their relationships with initiatives, strategies, policies and programmes.

The next frontier is all about nurturing ecosystems

All Stakeholders need to understand their roles and their real capabilities



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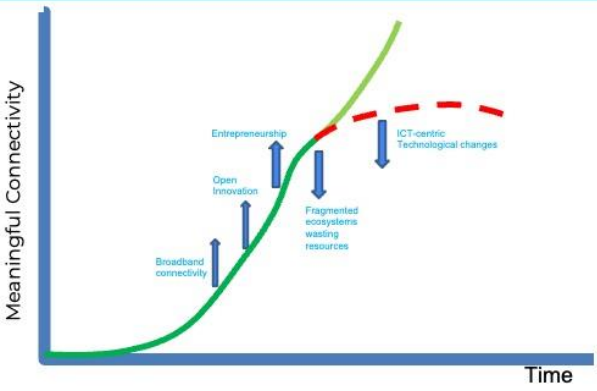
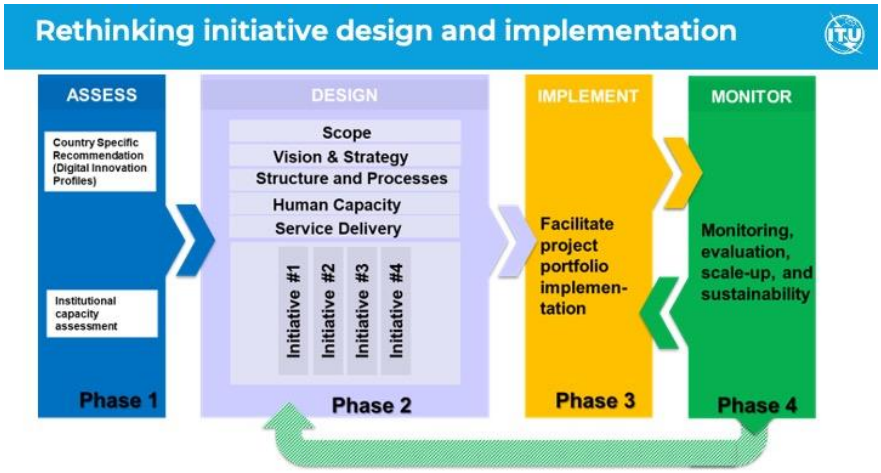
Navigating change towards national goals



Mozambique's vision:

To promote a prosperous, competitive, sustainable, secure and inclusive country


Rethinking initiative design and implementation
ASSESS
Country Specific Recommendation (Digital Innovation Profiles)
Institutional capacity assessment
Phase 1
DESIGN
Scope
Vision & Strategy
Structure and Processes
Human Capacity
Service Delivery
Initiative #1
Initiative #2
Initiative #3
Initiative #4
Phase 2
IMPLEMENT
Facilitate project portfolio implemen-tation
Phase 3
MONITOR
Monitoring, evaluation, scale-up, and sustainability
Phase 4


ITU approach to DIP | Methodology
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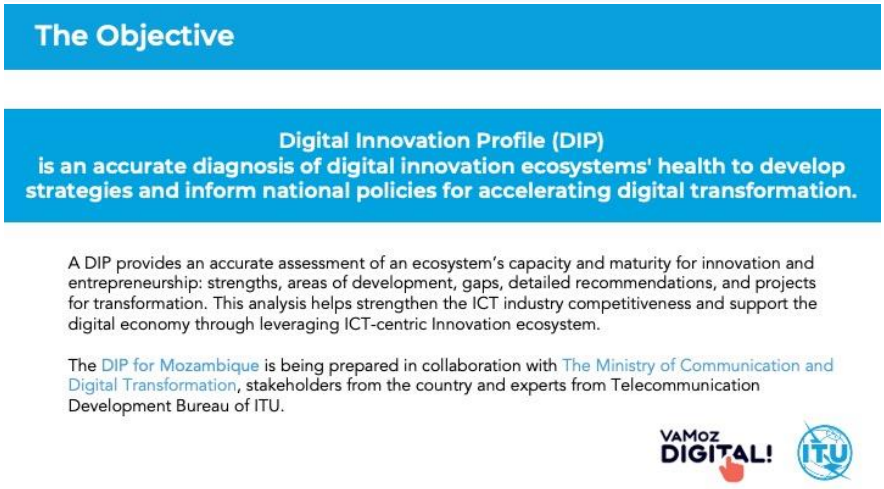
The Objective
Digital Innovation Profile (DIP)
is an accurate diagnosis of digital innovation ecosystems' health to develop strategies and inform national policies for accelerating digital transformation.
A DIP provides an accurate assessment of an ecosystem's capacity and maturity for innovation and entrepreneurship: strengths, areas of development, gaps, detailed recommendations, and projects for transformation. This analysis helps strengthen the ICT industry competitiveness and support the digital economy through leveraging ICT-centric Innovation ecosystem.
The DIP for Mozambique is being prepared in collaboration with The Ministry of Communication and Digital Transformation, stakeholders from the country and experts from Telecommunication Development Bureau of ITU.
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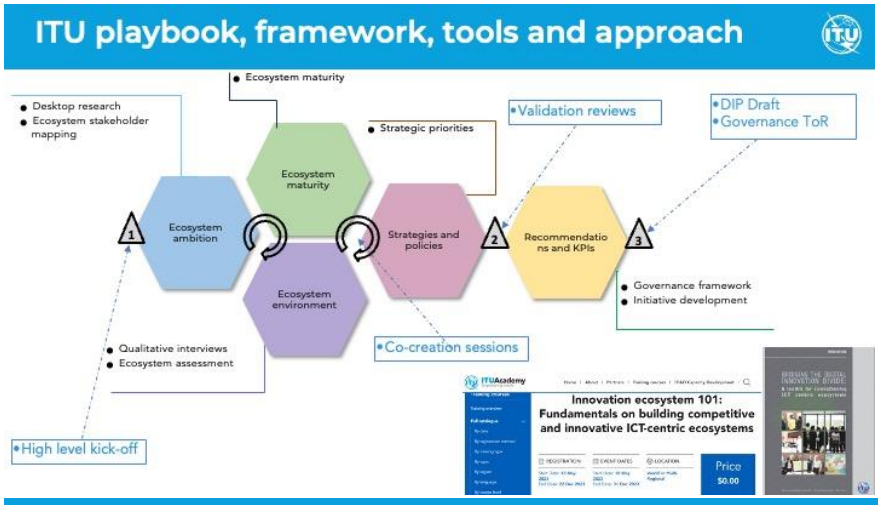
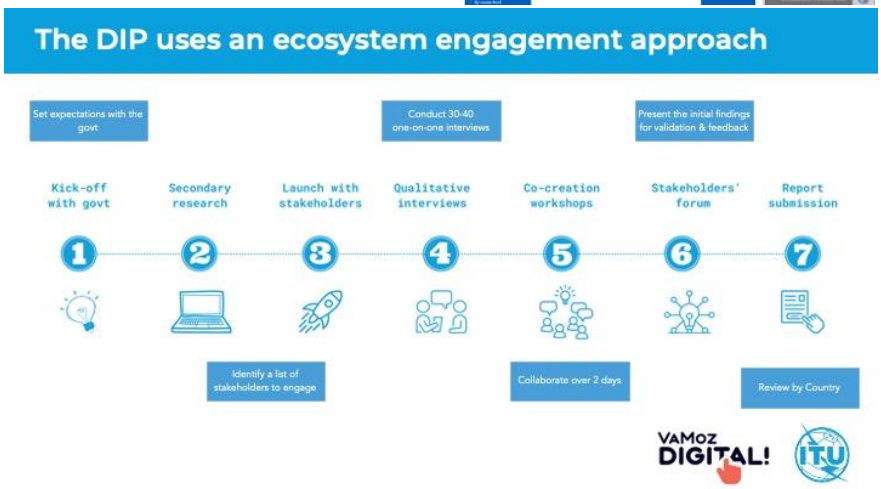
Completed and ongoing DIPs
Albania
Bahrain
Benin
Bosnia and Herzegovina
Brunei Darussalam
Georgia
Jordan
Kenya
Mali
Moldova
Montenegro
Mozambique
Niger
North Macedonia
Oman
Qatar
Rwanda
Serbia
South Africa
The Philippines
Trinidad and Tobago
Zambia
Zimbabwe


ITU playbook, framework, tools and approach
Ecosystem maturity
Desktop research
Ecosystem stakeholder mapping
Strategic priorities
Validation reviews
DIP Draft
Governance ToR
Ecosystem maturity
Ecosystem ambition
Strategies and policies
Recommendations and KPIs
Ecosystem environment
Governance framework
Initiative development
Qualitative interviews
Ecosystem assessment
Co-creation sessions
High level kick-off
Innovation ecosystem 101: Fundamentals on building competitive and innovative ICT-centric ecosystems
Price
$0.00


The DIP uses an ecosystem engagement approach
Set expectations with the govt
Conduct 30-40 one-on-one interviews
Present the initial findings for validation & feedback
Kick-off with govt
Secondary research
Launch with stakeholders
Qualitative interviews
Co-creation workshops
Stakeholders' forum
Report submission
1
2
3
4
5
6
7
Identify a list of stakeholders to engage
Collaborate over 2 days
Review by Country
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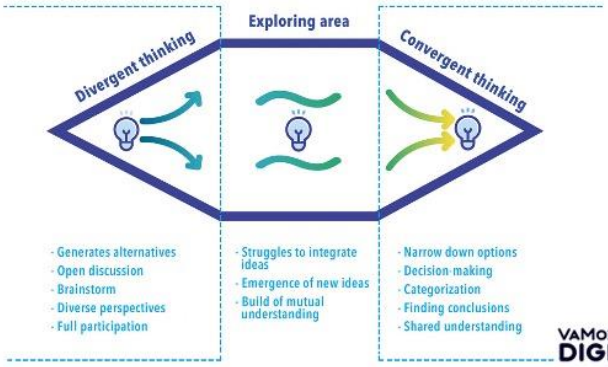
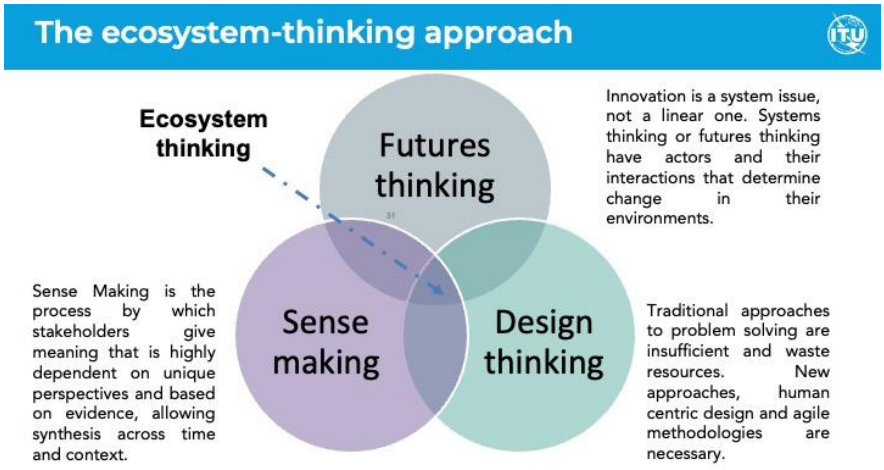
Our approach to the analysis

Our approach to ideation and problem solving



Our journey to diagnose and build capabilities


The ecosystem-thinking approach
Ecosystem thinking
Futures thinking
Sense making
Design thinking
Innovation is a system issue, not a linear one. Systems thinking or futures thinking have actors and their interactions that determine change in their environments.
Sense Making is the process by which stakeholders give meaning that is highly dependent on unique perspectives and based on evidence, allowing synthesis across time and context.
Traditional approaches to problem solving are insufficient and waste resources. New approaches, human centric design and agile methodologies are necessary.


Ecosystem Assessment Canvas | The enabling pillars
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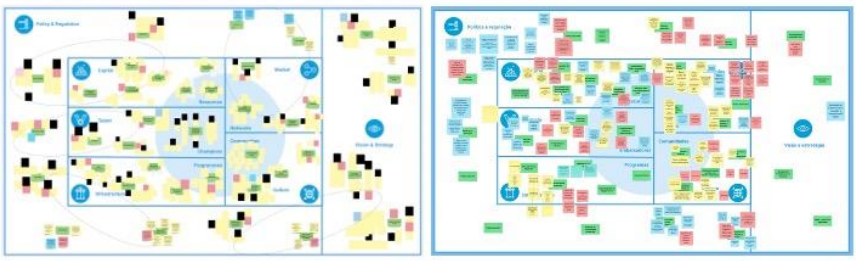
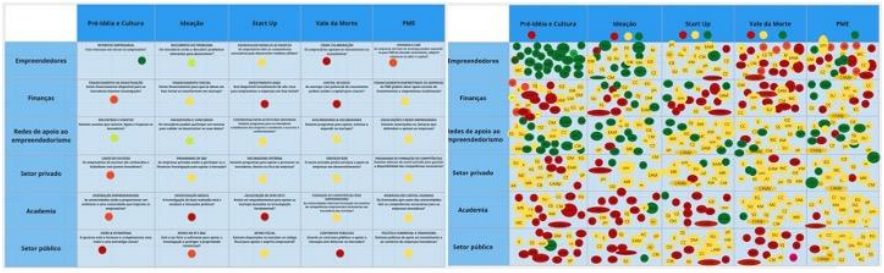
Mozambique Ecosystem Assessment



Mozambique Ecosystem Maturity



Mozambique Strategic Priorities - Development

Vision towards inclusion and prosperity

BOLETIM DA REPÚBLICA

PUBLICAÇÃO OFICIAL DA REPÚBLICA DE MOÇAMBIQUE

IMPRENSA NACIONAL DE MOÇAMBIQUE, E.P.

AVISO

A matéria a publicar no «Boletim da República» deve ser remetida em cópia devidamente autenticada, uma por cada assunto, donde conste, além das indicações necessárias para esse efeito, o averbamento seguinte, assinado e autenticado: **Para publicação no «Boletim da República»**.

Política de Ciência, Tecnologia e Inovacão e a Estratégia de Implementacão

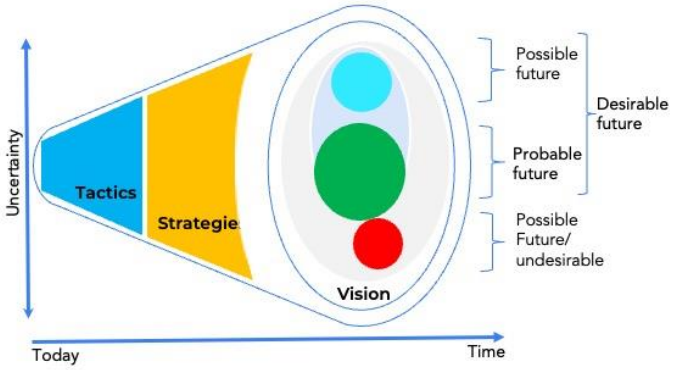
1. Introdução

A Ciência, Tecnologia e Inovação tem acelerado o desenvolvimento científico e tecnológico a nível global e Moçambique não pode ser uma excepção a esse processo. Ciente da importância e do impacto económico e social da Ciência, Tecnologia e Inovação (CTI), o Governo de Moçambique aprovou, no ano de 2003, a Política de Ciência e Tecnologia (PCT) e, em 2006, a Estratégia de Ciência,

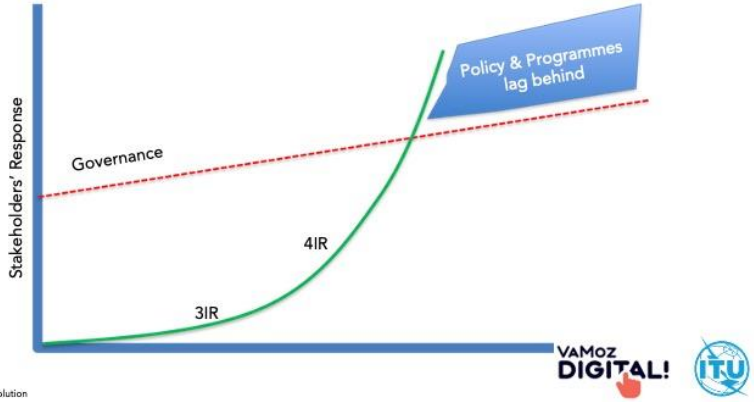
Is your ecosystem fit for the futures you want?

Is your ecosystem fit-for-futures to deliver your national ambition?

Do you have clear and measurable milestones to get there in our VUCA world ?



Policies and programmes lag behind



IR = Industrial Revolution

VAMOZ DIGITAL!

Developing and maturing your ecosystem

VAMOZ DIGITAL!

Need to fast-track five new capabilities

WHAT	WHY
Trends research readiness	Enables countries to be ahead of the curve and make sense of the evolution of technology, policy and innovation dynamics.
Open technology innovation	Harnesses technological know-how into global goods through open innovation and multistakeholder mechanisms, accelerating access to emerging technology for all.
Entrepreneurship and SMEs growth	Accelerates the uptake of digital innovation-driven entrepreneurship and opportunities for talent to achieve socio-economic inclusion in their communities.
Policy experimentation	Develops agile policies that provide stakeholders with safe space for experimentation, encouraging innovation and attracting investment in the digital ecosystem.
Ecosystem initiatives acceleration	Promotes collaboration and synergies that scale digital innovations and achieve cross-cutting sectoral value for a competitive digital economy.

Additional resources

Stakeholders can deep dive into the detailed methodology of developing a DIP or choose to take a self-paced, free-of-cost certificate course at ITU Academy.

INNOVATION-RELATED DOCUMENTS

ITU-D Digital Innovation Ecosystems: Unlock the potential to accelerate digital transformation of society

DETAILED METHODOLOGY

Bridging the Digital Innovation Divide — A toolkit for developing sustainable ICT-centric ecosystem projects

TRAINING COURSE

Innovation Ecosystem 101: Fundamentals on building competitive and innovative ICT-centric ecosystems

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Thank you

ITU VaMoz Digital! team