

Ecosystem Assessment Canvas

Enabling a conducive environment

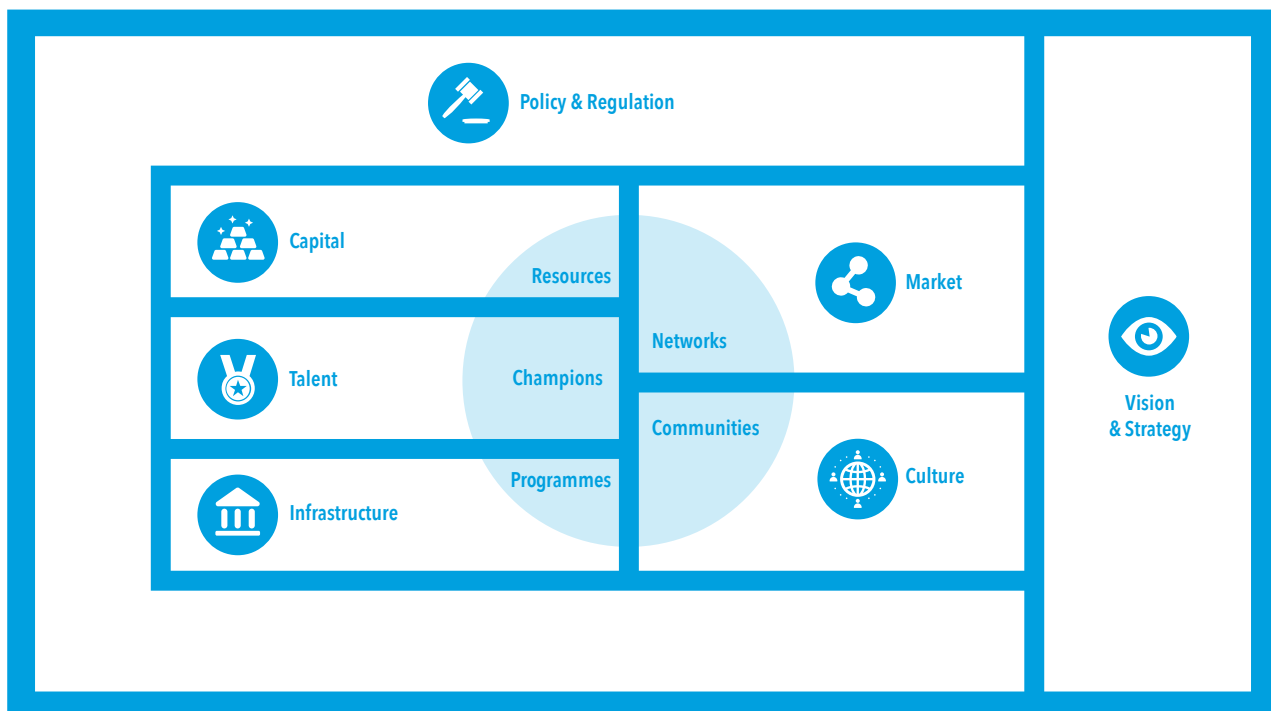
Section A: The Ecosystem Assessment Canvas

Many innovators **struggle to leverage technological changes to address the problems** that they are facing in their community. The key challenge is the inability of their ecosystems to absorb technology.

An ecosystem refers to a system or network of interconnecting and interacting organizations, and stakeholders from multiple sectors,

who come together and address the problems people are facing within their communities.

Traditionally, there are three ecosystems that are the critical growth engines responsible for nurturing ICT innovation from idea to market: the **ICT ecosystem**, the **innovation ecosystem**, and the **entrepreneurial ecosystem**.



PILLARS	VISION & STRATEGY:	TALENT & CHAMPIONS:	INFRASTRUCTURE & PROGRAMS:	CAPITAL & RESOURCES:	MARKET & NETWORKS:	CULTURE & COMMUNITIES:	POLICY & REGULATION:	CENTRAL SPACE
	Need for one shared vision Agreement on issues Ecosystem working together Support for shared vision;	Technical skills Soft skills Skills moving to innovation Champions leading & being recognized;	Hard Infrastructure Soft Infrastructure (Knowledge) Distribution Competitiveness Programs to support innovators;	Availability of investment Resources for research Possibility for trade & foreign investment Government & International funding Resources to build ecosystem supports;	Domestic markets Ability to export Innovation networks Formal associations Ecosystem mapping & collaborations;	Attitudes towards risk & entrepreneurship Communities & events Spread of entrepreneurial culture Diversity & equality within ecosystem;	Public sector engagement with innovation Public sector connections to ecosystem Intellectual Property and R&D ICTs SMEs Trade Finance	Connections between: Resources, Networks, Champions, Programs, & Communities Collaborative & Community Driven Dedicated elements for fostering innovation

At the nexus of these three growth engines is The ICT-centric ecosystem. It refers to an ecosystem that encompasses:

- The ICT sector,
- The cross-cutting role of ICT innovation, and
- The way innovation nurtures the evolution of other sectors in the economy.

Unfortunately, there is a lack of synergies between the three critical engines of growth; ecosystem stakeholders operate in silos, without aligning their initiatives and building a common vision. As a consequence, not all ecosystems are mature.

The lack of a nurturing environment is a significant challenge to achieve digital transformation. By understanding and assessing the ecosystem, it becomes possible to identify the enablers needed to achieve the vision. Enablers can be programs, policies and initiatives that are in place to foster digital transformation in the ecosystem.

The Ecosystem Assessment Canvas

Since each enabler is one part of a whole, and the function of each enabler is needed to have successful innovation activities, the combined efficiency of the enablers can be taken together to give a sense of the overall efficiency of the ecosystem.

Environments can be assessed by seven key enablers that reflect on the state of an innovation ecosystem.

Vision and strategy:

*Scope and Objectives,
and Aligned digital strategies*

Identifying the current and future states of the ecosystem is a critical component of the environment review. This is **because creating a shared vision helps all ecosystem players to rally around a common goal.**

Setting forth an accompanying strategy helps stakeholders understand their roles, the ones of others and how their activities support the common vision. Often these are laid out in government reports, but the vision for the ecosystem can also come from other sources, such as the private sector or academic networks.

Given that a vision and strategy are co-created, it is critical that they are exhaustive and inclusive of all stakeholder input across sectors.

Infrastructure and programmes:

*Inclusive digital infrastructure,
resilience and secure broadband
infrastructure, and soft infrastructure*

These are the building blocks of an innovation ecosystem. Infrastructure is often categorised as hard or soft.

- Hard infrastructure includes connectivity, roads, electricity and public transportation
- Soft infrastructure includes sharing knowledge such as tech hubs, training resources and research institutions.

Programmes take advantage of this infrastructure, especially the soft infrastructure, to support the ecosystem.

Talent and champions:

Talent appropriateness

Talent refers to the human capital that powers the ecosystem and the resources that enhance that capital.

It encompasses:

- Hard skills such as engineering and programming.
- Soft skills such as management, communications and administration.

In addition to a broad talent pool, every ecosystem needs specific champions to thrive. **A champion is a person who plays a leadership role in the ecosystem by initiating change, building cornerstone institutions, and encouraging the contributions of new actors.**

Capital and resources:

Appropriate demand side resources and continuum of supply side resources

Start-ups need capital to grow and thrive.

In the early stages, risk capital, such as from angel investors, is required.

As companies mature and expand, funding from larger investors such as venture capitalists (VCs) and private equity funds can help drive growth.

Some of this can come from the government or civil society, but ultimately the majority should come from private investors. To complement the work of financing start-ups directly, support networks and other ecosystem-building programmes need resources to operate successfully.

Markets and networks:

Integration of economic sectors and market access domestic and international

Start-ups require markets to serve, which is why it is essential to understand the depth of the market and access it locally, regionally, and internationally. Additionally, the government is often a significant purchaser of products and services and a source of contracts for budding enterprises. As a result, an efficient and transparent public procurement process is useful for start-ups. Networks and clusters are also needed in ecosystems to ensure that innovators have access to all of the resources and connections they need.

Culture and communities:

Sustainable culture of entrepreneurship and innovation, and communities

Cultivating an innovative, entrepreneurial culture involves sharing fundamental values such as risk-taking, an appreciation for failure, and a willingness to iterate and learn. These values create a blueprint for behaviour across the ecosystem, shared by communities of innovators and champions through events and activities.

Regulation and policy:

Comprehensive and grassroots innovation policies and programmes and legal frameworks

Supportive policies and regulations can provide fertile ground for the efforts of entrepreneurs and innovators.

Poorly developed policies can stifle innovation.

There are many areas of policy and regulation that are critical to the success of the innovation ecosystem, including taxation, trade policy, intellectual property law, financial regulation and business regulation, among others.

Central elements

Amongst the other enablers there is a central space.

This space encompasses activities focused on advancing the work of stakeholders in the ecosystem specifically, such as communities sharing entrepreneurial culture, rather than actions that broadly support the economy, such as influencing national culture.

Infobox

Understanding Digital Transformation Capabilities

PILLARS	Vision & Strategy	Capital	Market	Infrastructure	Talent	Culture	Policy
ISSUES	Scope and objectives	Appropriate Demand side resources	Integration of economic sectors	Inclusive digital infrastructure	Talent appropriateness	Sustainable culture of entrepreneurship and innovation	Comprehensive and grassroots innovation policies & programs
	Aligned Digital strategies	Continuum of Supply side resources	Market access domestic and international	Resilient & secure broadband Infrastructure Soft infrastructure	Champions	Communities	Legal frameworks

Digital transformation is what happens when innovation is applied to solve problems through the use of ICT/Telecommunication. The benefits to a country and its people are immense - significantly increased productivity, economic growth and increased employment opportunity. The degree to which these benefits are within reach depends on the vibrancy of the ICT-centric ecosystem and a corresponding long-term vision and strategy that supports it.

All stakeholders in the ecosystem need to understand their potential for making a difference, as well as their very real capabilities - as they engage in transformation. The ITU Digital Innovation Framework not only helps transfer this understanding but also clearly sets out what enablers can achieve - as well as identifying the barriers they will encounter along the journey of change. Key factors and components that enhance, foster and facilitate digital transformation are clearly clustered and helpfully organized in the diagram above.

Section B: How to use the Ecosystem Assessment Canvas



Time

Up to 4 hours



What you will need

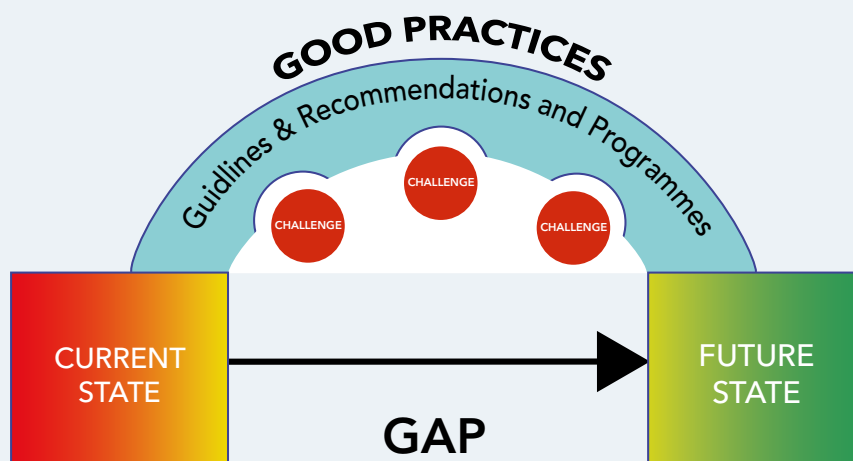
- A3 paper
- Sticky notes (red, yellow and blue)
- Markers (assorted colours)



Steps

Infobox

Analytical framework



A gap between the current and future states can be closed by eliminating the relevant challenges through good practices.

Agree upon a desired future. The primary stakeholders in the innovation ecosystem—innovators, investors, academicians, policy-makers, etc.—come together to decide how the ecosystem should evolve.

Understand the current state. Stakeholders engage in identifying the strengths and weaknesses of their ecosystem.

Analyse gaps. Based on the current situation and the desired future state, stakeholders identify key needs that should be prioritized in developing the ecosystem.

Good practices. Irrespective of where the gaps and opportunities are, key actors in an ecosystem discover good practices that should be shared and replicated, and look for international good practices which may serve as a model for addressing the issues. ITU is continuously developing a database of good practices for use in this process.

Identify challenges. Specific areas of action and good practices to be amplified are laid out to become the basis of recommendations for activities going forward.

Develop guidelines and recommendations. Based on a shared vision and understanding of the current landscape, recommendations for how to address challenges and exploit opportunities can be produced.

Build programmes. In order to advance meaningful change in the ecosystem, recommendations and policies must be translated into programmes.

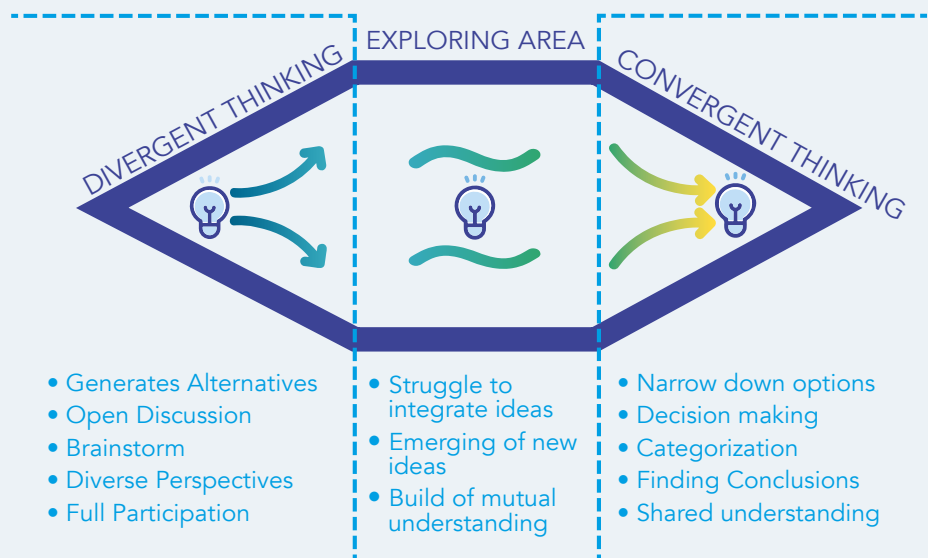
1 Future State Analysis

Brainstorm the future state of each pillar on the tool, using the key elements of the corresponding pillars (see *info box on page 8*). Go through each one of the pillars and get the participants to describe it.



Tip 1 - Divergent and Convergent Thinking

It is recommended to use divergent and convergent thinking to gather the necessary information. The thinking mode is the way the participants are encouraged to reflect throughout the process. Divergent thinking is similar to 'brainstorming', exploring as many ideas as possible without shutting them down. Convergent thinking is when thinking is narrowed down to a few answers.



Participants must write down one idea per yellow sticky note and each group has to place their idea on the tool.

Enable an open discussion, get one of the groups to share their ideas, and compare them with the other groups. Reduce the number of ideas and place them on the knowledge wall. Do this through affinity groups and similarity; the participants can create new ones consolidating the information from before.

Infobox

Key Elements of the 7 pillars

VISION & STRATEGY:

Need for one shared vision
Agreement on issues
Ecosystem working together
Support for shared vision;

TALENT & CHAMPIONS:

Technical skills
Soft skills
Skills moving to innovation
Champions leading &
being recognized;

INFRASTRUCTURE & PROGRAMS:

Hard Infrastructure
Soft Infrastructure (Knowledge)
Distribution
Competitiveness
Programs to support innovators;

CAPITAL & RESOURCES:

Availability of investment
Resources for research
Possibility for trade & foreign investment
Government & International funding
Resources to build ecosystem supports;

MARKET & NETWORKS:

Domestic markets
Ability to export
Innovation networks
Formal associations
Ecosystem mapping & collaborations;

CULTURE & COMMUNITIES:

Attitudes towards risk & entrepreneurship
Communities & events
Spread of entrepreneurial culture
Diversity & equality within ecosystem;

POLICY & REGULATION:

Public sector engagement with innovation
Public sector connections to ecosystem
Intellectual Property and R&D
ICTs
SMEs
Trade
Finance

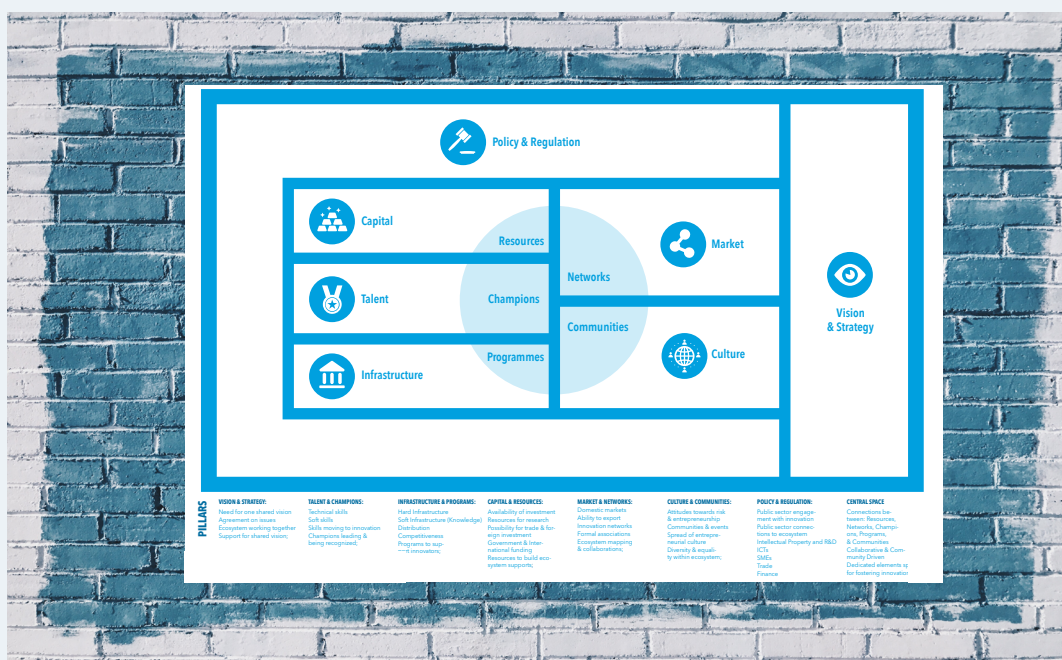
CENTRAL SPACE

Connections between: Resources, Networks, Champions, Programs, & Communities
Collaborative & Community Driven
Dedicated elements for fostering innovator



Tip 2 - Large group structure and knowledge wall

In a knowledge wall, consolidate one common **Ecosystem Assessment Canvas** between all group. It is recommended that large group are split in manageable size, but the facilitator will need to consolidate all groups information into one canvas through active moderation when all groups finish their work. Note that correct representation of all stakeholders groups are needed to bring empathy in the exercise because they can more accurately share the status of each indicator.



This can be turned into a manifesto of the ecosystem

2 Current State analysis

Brainstorm the future state of each pillar on the tool, using the key elements of the corresponding pillars (see info box on page 8).

Go through each one of the pillars and get the participants to describe it.

Participants must write down one idea per yellow sticky note and each group has to place their idea on the tool.

Enable an open discussion, get one of the groups to share their ideas, and compare them with the other groups. Reduce the number of ideas and place them on the knowledge wall. Do this through affinity groups and similarity; the participants can create new ones consolidating the information from before.

***Tip 1 and 2** may come in handy, for this exercise

3 Gap

Based on the information gathered from the future and current states, identify the "jobs-to be-done" so as to close the gap and realize the desired future.



Outcome

An assessment of a current ecosystem's situation and identification of gaps/jobs-to-be-done to realize the desired future state.



Key takeaways

- Through this tool, stakeholders will have a better comprehension of the problems they are facing and the solutions to address their challenges.
- The **Ecosystem Assessment Canvas** will give an overview of the future of the ecosystem and act as an enabler by offering the required resources to its success.