



# Strengthening science, technology and innovation parks as catalysts for fostering entrepreneurship in developing countries

Technical note







# Strengthening science, technology and innovation parks as catalysts for fostering entrepreneurship in developing countries

Technical note





The findings, interpretations and conclusions expressed herein are those of the author(s) and do not necessarily reflect the views of the United Nations or its officials or Member States.

The designations employed and the presentation of material on any map in this work do not imply the expression of any opinion whatsoever on the part of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Mention of any firm or licensed process does not imply the endorsement of the United Nations.

This publication has been edited externally.

UNCTAD/TCS/DTL/INF/2025/7



# Acknowledgements

This technical note was prepared, under the guidance of Angel González Sanz, Head of the Technology, Innovation and Knowledge Development Branch, Division on Technology and Logistics of UNCTAD, by a team led by Liping Zhang (project leader) and including Ruslan Rakhmatullin, Xiahui Xin and Salome Rigaux.

The technical note was prepared under the UNCTAD project Science, Technology and Innovation Parks for Sustainable Development: Building Expertise in Policy and Practice in Selected Asian and African Countries, financed by the 2030 Agenda for Sustainable Development Subfund under the United Nations Peace and Development Fund.

UNCTAD gratefully acknowledges the substantive contributions to the technical note provided by Jakob Lindvall, Senior Adviser, ALDAB Innovation, Sweden.

W. John Rogers edited the document. The cover, overall layout and graphics were carried out by Kathleen Morf.





# Table of contents

Acknowledgements.....	iii
I. Introduction .....	1
II. A practical framework for STI parks to support entrepreneurship ...	2
A. Entrepreneurial activation and venture development.....	2
B. Resources and support .....	2
C. Ecosystem orchestration .....	3
III. Entrepreneurial challenges in developing countries and potential interventions through STI parks .....	4
IV. STI parks as ecosystem orchestrators .....	7
A. Connecting and enabling.....	7
B. Integrating public support .....	8
C. Ecosystem orchestration in action – examples .....	8
V. Policy recommendations.....	11
A. Establish governance for legitimacy and coordination .....	11
B. Develop entrepreneurial capabilities along the start-up journey.....	12
C. Strengthen connectivity to mobilize resources.....	12
D. Expand global connectivity and learning.....	13
E. Provide targeted support to promote inclusive entrepreneurship .....	13
VI. Conclusions.....	15
References.....	16
Figure	
Figure 1: Framework for entrepreneurial growth .....	3
Tables	
Table 1: Key ecosystem barriers and areas STI parks can potentially intervene to coordinate entrepreneurial progress.....	6
Table 2: Examples of STI parks' support of entrepreneurship.....	8







© Adobe Stock

## I. Introduction

This technical note examines how science, technology and innovation (STI) parks can catalyse entrepreneurship, drawing on international evidence and experiences. Applying a structured framework to examine how STI parks can support entrepreneurship in developing countries, it aims to guide policymakers in developing and transition economies in designing and implementing STI park policies that promote sustainable and inclusive entrepreneurship.

In many developing countries, entrepreneurship is constrained by fragmented support systems, limited

institutional trust and uneven access to critical resources. This technical note explores how STI parks can help address these challenges. Drawing on systems thinking and entrepreneurship research, this framework introduces a practical approach to clarify how STI parks can activate entrepreneurial potential, link key resources and coordinate support functions. The framework also informs the subsequent analysis and recommendations, providing a foundation for targeted interventions and capacity-building strategies.





## II. A practical framework for STI parks to support entrepreneurship

STI parks  
can unlock  
entrepreneurial  
potential

A systems approach is applied in structuring this framework, which follows the entrepreneurial growth journey, identifies where support is most needed and explains how ecosystem orchestration can reduce friction and enable progress.

The framework consists of three dimensions:

- 1) Entrepreneurial activation and venture development;
- 2) Resources and support;
- 3) Ecosystem orchestration.

### A. Entrepreneurial activation and venture development

Start-ups evolve through five distinct phases, from early ideation to growth and scale. Each phase presents specific challenges that require targeted support. Before this journey begins, it is essential to foster entrepreneurial mindsets, reduce barriers and encourage individuals to take action.

#### Phase 0. Entrepreneurial activation

Cultivating entrepreneurial mindsets through education, exposure and peer support.

#### Phase 1. Formation

Team-building and early ideation, often driven by experimentation and informal networks.

#### Phase 2. Problem–solution fit

Testing value propositions with users and refining through feedback.

#### Phase 3. Product–market fit

Developing and validating a viable business model while gaining market traction.

#### Phase 4. Efficiency

Improving operations, managing costs and streamlining for scale.

#### Phase 5. Scale

Expanding markets, growing capacity and building a team for long-term growth.

This progression helps STI parks target support more effectively, avoid fragmentation and build continuity along the start-up journey.

### B. Resources and support

Entrepreneurs require more than ideas and motivation. They depend on timely access to a combination of resources aligned with each stage of venture development. These include skills, financing, infrastructure, customer relationships and networks.

- **Competence**

Entrepreneurial and technical skills gained through education, training, mentoring and peer learning.

- **Capital**

Financial support matched to the different stages, from early testing to scaling.

- **Innovation infrastructure**

Shared labs, development facilities and digital tools that enable experimentation and reduce costs.

- **Channels to customers**

Channels that support customer engagement, feedback and revenue generation.

- **Customers**

Real-world users and partners who provide input and accelerate learning.

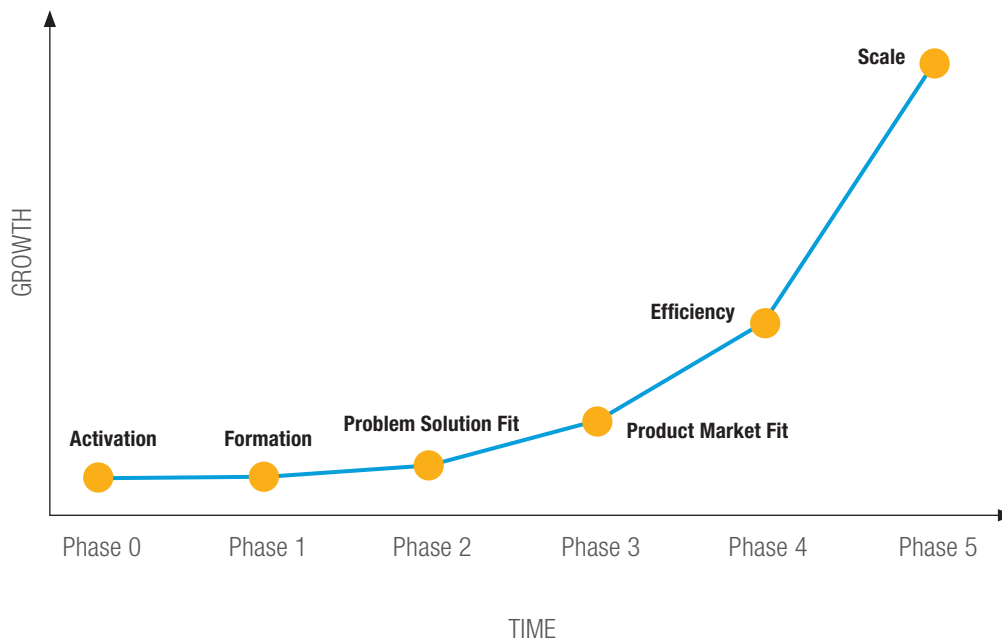
- **Partners and value networks**

Relationships with mentors, peers, institutions and industry that open doors and build resilience.

Entrepreneurs  
need more  
than just  
good ideas



**Figure 1**  
**Framework for entrepreneurial growth**



Source: Adapted from the five-phase model (Närfelt, 2024).

## C. Ecosystem orchestration

In many developing countries, entrepreneurial ecosystems are incomplete and fragmented. Rather than depending on isolated inputs, they rely on interaction and collaboration across different actors and institutions. Ecosystem orchestration refers to the ability to connect people, coordinate support and bring together resources across institutional boundaries, helping entrepreneurs manage gaps and obstacles in the system (Närfelt, 2024).

It is not a top-down function. It relies on responsiveness, proximity and a deep understanding of system dynamics. When

effectively applied, orchestration enables multiplier effects by linking people and resources in ways that generate outcomes greater than the sum of their parts.

In a policy context, orchestration is both relational and strategic. It provides direction by aligning ecosystem efforts with national development priorities and local needs. Effective orchestration reduces fragmentation, builds trust and mobilizes resources towards shared goals, transforming distributed assets into adaptive systems capable of delivering long-term impact.





### III. Entrepreneurial challenges in developing countries and potential interventions through STI parks

**This section describes the main challenges and frictions along the entrepreneurial journey in developing countries and proposes potential interventional measures by STI parks to address them.**

Entrepreneurs in developing countries often encounter fragmented support ecosystems, weak institutional coordination and limited trust. These patterns are reflected in recent UNCTAD Science, Technology and Innovation Policy Reviews, which highlight how overlapping mandates, poor collaboration and weak legitimacy of intermediary institutions constrain entrepreneurial development in

countries such as Mozambique (UNCTAD, 2024a) and Ghana (UNCTAD, 2024b). The Economic Commission for Europe (2022) reaches the same conclusion for transition economies: its *Interim Sub-regional Innovation Policy Outlook 2022* identifies “weak science–business linkages and limited early-stage finance” as persistent bottlenecks to market-ready innovation in Eastern Europe and the South





Caucasus. These challenges are particularly pronounced during the early stages and growth phases of start-up development.

Structural barriers such as regulatory complexity, policy unpredictability and inadequate legal protections result in hidden costs and discourage formalization. A lack of trust in intermediary organizations further limits collaboration and restricts access to support services.

Access to infrastructure is also a widespread concern. Many start-ups, particularly those led by young entrepreneurs, do not have the resources to utilize prototyping tools, testing environments or advanced digital platforms. Shared access models can help reduce costs, but these models require effective coordination and sustained institutional commitment.

However, infrastructure alone does not create an environment that enables entrepreneurship. Many founders lack the practical skills necessary to make full use of available resources. Deficits in entrepreneurial discovery, innovation management and venture development reveal deeper capability gaps that hinder progress. These challenges are especially acute for women and youth who face distinct structural and social barriers in pursuing entrepreneurial pathways. Young entrepreneurs often lack access to resources

due to limited savings, constrained credit histories and reduced investor trust. For women, challenges are compounded by social expectations, stereotypes, and underrepresentation in the tech and entrepreneurship ecosystem. For example, only 13 per cent of technology entrepreneurs in Ghana are women, and research has shown that gendered assumptions, such as the belief that technology is too difficult or incompatible with their family responsibilities, continue to limit women's participation in STI ventures (UNCTAD, 2025). In Uzbekistan, for example, only 23 per cent of women and 36 per cent of men believe that girls and women are suited for studying science or technical professions (United Nations Development Programme, 2023), highlighting the persistence of cultural norms that restrict entry into entrepreneurial careers. These intersecting barriers – limited entrepreneurial skills, financing gaps and cultural constraints – underscore the importance of designing inclusive capacity-building programmes that enable underrepresented groups to initiate, sustain and scale entrepreneurial ventures.

Table 1 summarizes key ecosystem barriers along the start-up journey and highlights areas where STI parks can play a more active and coordinating role in supporting entrepreneurial progress.

**Skills matter  
as much as  
infrastructure**







**Table 1**  
**Key ecosystem barriers and areas STI parks can potentially intervene to coordinate entrepreneurial progress**

Phase	Ecosystem barriers	Potential interventions by STI parks
<b>0. Entrepreneurial activation</b>	<ul style="list-style-type: none"> <li>A) Low confidence and under-representation among youth, women and marginalized groups</li> <li>B) Unclear access to ecosystem entry points and early guidance</li> <li>C) Limited exposure to entrepreneurship and innovation practices</li> </ul>	<ul style="list-style-type: none"> <li>a) Promote entrepreneurship education, outreach and relatable role models</li> <li>b) Create one-stop entry points through hubs or trusted intermediaries</li> <li>c) Support community-based mentorship and peer learning</li> <li>d) Offer basic innovation training to support early exploration and entrepreneurial motivation</li> </ul>
<b>1. Formation</b>	<ul style="list-style-type: none"> <li>A) Limited access to structured support for early ideation and validation</li> <li>B) Weak co-founder networks and team-building mechanisms</li> <li>C) Limited access to expert input on business concepts and feasibility</li> </ul>	<ul style="list-style-type: none"> <li>a) Offer hands-on formats such as boot camps, idea challenges and short pre-incubation tracks</li> <li>b) Support team formation through start-up events, co-working spaces and founder meetups</li> <li>c) Provide early-stage mentoring and feedback from sector-specific experts</li> </ul>
<b>2. Problem-solution fit</b>	<ul style="list-style-type: none"> <li>A) Limited access to real users and early adopters</li> <li>B) Lack of infrastructure for prototyping and testing</li> <li>C) No funding for early validation</li> </ul>	<ul style="list-style-type: none"> <li>a) Facilitate user validation through partnerships with companies and public agencies</li> <li>b) Provide shared access to labs, test facilities and digital tools, including software and computing resources</li> <li>c) Offer microgrants and pilot funding to support initial product testing</li> </ul>
<b>3. Product-market fit</b>	<ul style="list-style-type: none"> <li>A) Limited access to early customers and sales channels</li> <li>B) Lack of capital for commercial testing</li> <li>C) Limited ability to adapt based on data and customer feedback</li> </ul>	<ul style="list-style-type: none"> <li>a) Facilitate early customer engagement through pilot programmes, buyer partnerships and structured matchmaking in both public and private sectors</li> <li>b) Provide seed grants and milestone-based funding tailored to market entry</li> <li>c) Offer coaching in data-driven product refinement, pricing and go-to-market strategy</li> </ul>
<b>4. Efficiency</b>	<ul style="list-style-type: none"> <li>A) Limited insight into cost drivers and customer acquisition efficiency</li> <li>B) Lack of access to finance, legal and human-resources expertise</li> <li>C) Fragmented links to production and logistics</li> </ul>	<ul style="list-style-type: none"> <li>a) Provide tools and coaching to improve cost control, conversion and customer retention</li> <li>b) Offer shared access to legal, finance and human-resources support through expert networks or service hubs</li> <li>c) Connect start-ups to partners with expertise in manufacturing, logistics and operational scaling</li> </ul>
<b>5. Scale</b>	<ul style="list-style-type: none"> <li>A) Limited access to growth capital and international investors</li> <li>B) Weak links to strategic partners for market expansion</li> <li>C) Uncoordinated support for export and international operations</li> </ul>	<ul style="list-style-type: none"> <li>a) Facilitate investor access through trade missions, demo days and curated matchmaking</li> <li>b) Support partnerships with corporates, venture funds and innovation networks that enable international expansion</li> <li>c) Connect scale-ups to export services, landing platforms and international STI parks</li> </ul>







© Adobe Stock

## IV. STI parks as ecosystem orchestrators

While the role of ecosystem orchestrator can be taken by a range of actors, including universities, public agencies or industry associations, a well-designed and managed STI park is particularly well placed to perform this function. In many developing countries, entrepreneurial ecosystems are fragmented and lack coordination. STI parks can help address these challenges by enhancing connectedness across actors, resources and phases of the entrepreneurial journey. Their potential to function as neutral coordination platforms has also been recognized in previous work by UNCTAD that highlights the role of STI parks in promoting collaboration among firms, universities and public agencies (UNCTAD, 2015).

### A. Connecting and enabling

STI parks can act as platforms that link entrepreneurs, start-ups, researchers, corporations, public agencies and investors. They facilitate collaboration through joint initiatives, thematic platforms and structured matchmaking efforts. By coordinating shared infrastructure such as laboratories, co-working spaces and expert networks, STI parks reduce entry barriers and support venture development at various stages.

STI parks bring people and ideas together





## B. Integrating public support

In contexts where public support is fragmented and trust is limited, STI parks can contribute to restoring confidence and improving alignment across the innovation ecosystem. This role has been noted in UNCTAD's review of Uzbekistan, which identifies a disconnect between national STI strategies and the practical mechanisms needed for coordination, funding and long-term legitimacy at the local level (UNCTAD, 2024c). To function effectively, STI parks must be perceived as neutral and aligned with both local and national priorities. Their ability to coordinate depends on transparency, stakeholder trust and institutional continuity.

Orchestration  
builds trust  
and enables  
progress

## C. Ecosystem orchestration in action – examples

Ecosystem orchestration by STI parks is not a merely technical function. It is relational, adaptive and built on trust, although it also calls for specific knowledge and skills. STI parks that can assume this role will help transform dispersed resources into coherent systems, thereby fostering innovation and inclusive growth.

The examples contained in table 2 illustrate how STI parks can support entrepreneurship by facilitating coordinated access to resources and reducing system fragmentation. Each case demonstrates how different models are adapted to local contexts while enabling start-ups to progress from early-stage ideation to market entry and expansion.



**Table 2**  
**Examples of STI parks' support of entrepreneurship**

STI park / Initiative	Country	Barrier tackled	Orchestration response
<b>Startup Thailand – a national platform led by the National Innovation Agency (NIA)</b>	Thailand	<b>Phase 0–1:</b> Low confidence and underrepresentation outside Bangkok; limited access to structured support for early ideation and validation	Startup Thailand (launched 2016) links five regional hubs (Bangkok, Chiang Mai, Khon Kaen, Songkhla and the Eastern Economic Corridor) under one digital entry point. Activities include: <ul style="list-style-type: none"> <li>– Campus and community roadshows (&gt;400 since 2016)</li> <li>– NIA offers seed grants up to THB 5 million per project (~US\$150K)</li> <li>– Multiple regional pre-acceleration and business development cohorts</li> <li>– Annual Startup Thailand X Techsauce showcase (&gt;10,000 visitors)</li> </ul> <b>Impact:</b> Engaged thousands of entrepreneurs and supported over 1,000 start-ups nationwide through training, incubation, and funding. (NIA, 2022)





Table continued

STI park / Initiative	Country	Barrier tackled	Orchestration response
<b>Cyberjaya Science Park – Living Lab Accelerator</b>	Malaysia	<b>Phase 1–2:</b> Limited structured support for early ideation, lack of prototyping infrastructure and no funding for early validation	<p>One-stop Living Lab Accelerator (5-month cohorts) replaces three legacy programmes. A single online application unlocks:</p> <ul style="list-style-type: none"> <li>– Free co-working at Cyberview Hub</li> <li>– Dedicated mentor pool &amp; design-thinking workshops</li> <li>– Up to RM 100K (~US\$24K) in cloud credits (AWS, Google, Microsoft)</li> <li>– FabLab prototyping hours and Internet of things test beds</li> <li>– RM 150K (~US\$36K) seed co-investment via Cyberview–Malaysia Digital Economy Corporation fund</li> <li>– Pilot-project brokerage with park anchor corporates</li> </ul> <p><b>Impact:</b> 129 alumni; RM 264M (~US\$58M) follow-on capital; over RM 837M (~US\$186M) revenue generated (Cyberview Sdn Bhd, 2025)</p>
<b>Tehnopol Science and Business Park – “Tallinnovation” Urban Pilot and Grant Scheme</b>	Estonia	<b>Phase 2–3:</b> Limited access to real users and early adopters; no funding for early validation	<p>The Tallinnovation competition, run jointly by the City of Tallinn and Tehnopol Science and Business Park, tackles urban challenges:</p> <ul style="list-style-type: none"> <li>– Tallinnovation Fund provides up to €145,000 per funding round to finance first prototypes and city pilots</li> <li>– Fast-track permits and municipal brokerage open Tallinn’s streets, bike lanes and digital-twin data for real-world tests</li> <li>– Founders tap Tehnopol’s labs, 200 resident firms and 11,000 students for rapid feedback</li> </ul> <p><b>Impact:</b> Over 5 calls (2020–2024) the programme financed 20 prototypes; by July 2025, 13 had reached market launch – a 65 per cent commercialization rate (Tehnopol Science and Business Park, 2025)</p>





Table continued

STI park / Initiative	Country	Barrier tackled	Orchestration response
<b>São José dos Campos Technology Park – Nexus Supplier-Development Programme</b>	Brazil	<b>Phase 3–4:</b> Fragmented links to production and logistics; high certification costs	Nexus innovation hub connects start-ups and small and medium-sized enterprises (SMEs) to regional industry clusters such as aerospace and ICT through structured business support and collaborative R&D: <ul style="list-style-type: none"> <li>– Incubation and acceleration programmes from ideation to scale</li> <li>– Shared labs and technical infrastructure for prototyping</li> <li>– Open innovation and mentoring via Nexus Circle and partner network</li> <li>– Direct links to Embraer and other anchor firms for pilot collaboration</li> </ul> <b>Impact:</b> 196 firms active; 71 start-ups matured; R\$101M (~US\$20M) in tax revenue; R\$231M (~US\$46M) in grants; R\$37.9M (~US\$8M) in private investment (Parque Tecnológico São José dos Campos, 2023)
<b>Swedish Scaleups (led by Linköping Science Park)</b>	Sweden	<b>Phase 4–5:</b> Fragmented links to production and logistics; limited access to growth capital and international investors; weak links to strategic partners for market expansion	A consortium of nine incubators and science parks across six cities, working through the one-stop Swedish Scaleups platform. Participating firms receive: <ul style="list-style-type: none"> <li>– A dedicated scale-up coach and peer board</li> <li>– Investor matchmaking and capital-raising support</li> <li>– Internationalization missions (e.g., Slush, Silicon Saxony)</li> <li>– Boot camps on sustainability and cybersecurity</li> </ul> <b>Impact:</b> 415 companies supported to date; programme reports revenue growth and new jobs across the six-city region (Linköping Science Park, 2023)

Connectivity,  
not concrete,  
drives park  
success

As can be seen from these examples, across different income levels and policy contexts, the STI parks that succeed are the ones that bundle services into a single-entry point and anchor them in trusted relationships. Whether the goal is to activate first-time founders in Thailand or connect Brazilian SMEs to Embraer's supply chain, the common denominator is orchestration: each park convenes multiple actors, aligns resources and shortens time-to-result for entrepreneurs.

The figures speak for themselves: 94 alumni have raised RM 220 million in Cyberjaya, 76 Brazilian SMEs have won export contracts and 415 Swedish firms have scaled with regional support. This underscores that park performance hinges on system connectivity, not on any single facility or grant instrument. Policymakers who want similar outcomes should therefore invest in STI parks' coordinating mandate, long-term legitimacy and global linkages, as detailed in the following section's recommendations.







## V. Policy recommendations

To realize their potential as ecosystem orchestrators, STI parks require policy support that extends beyond infrastructure development and isolated support programmes. Many remain constrained by fragmented mandates, short-term funding and weak integration into national innovation systems. This section outlines four strategic areas through which STI parks can connect actors, align resources and coordinate support in line with their ecosystem role.

These recommendations are informed by the challenges identified earlier, as well as insights from successful STI park models. They focus on fostering institutional conditions, capabilities and partnerships that enable STI parks to support sustained entrepreneurial growth across different contexts.

### A. Establish governance for legitimacy and coordination

STI parks cannot fulfil their role as ecosystem orchestrators without institutional legitimacy and clearly defined mandates. In many developing countries, STI parks operate in policy grey zones, without formal recognition, stable support or alignment with national priorities. To become trusted conveners they require governance models that are inclusive, transparent and focused on coordination rather than control:

- Assign STI parks clear mandates as regional innovation coordinators, responsible for aligning academic, public and private actors;

Trust starts with clear mandates and shared goals





- Embed STI parks into national innovation strategies and regional development plans to ensure policy coherence and continuity;
- Establish impartial and transparent governance structures, such as advisory boards or public–private steering groups, to enhance legitimacy and prevent capture by narrow interests;
- Promote accountability through frameworks that value collaboration, continuity and ecosystem health over short-term outputs.

Effective governance is not merely a matter of administration; it is a precondition for trust. Only when STI parks are perceived as credible and impartial can they mobilize stakeholders around shared goals and coordinate the collective effort required for entrepreneurship to thrive.

## **B. Develop entrepreneurial capabilities along the start-up journey**

Innovation ecosystems are only as strong as the people who drive them. In many developing countries, entrepreneurs face not only limited access to infrastructure and capital, but also a lack of the skills, confidence and support required to manage uncertainty, build viable ventures and scale effectively. Persistent gaps in entrepreneurial discovery, innovation management and venture development have been identified in several STI park gap analysis reports, including that of Mongolia, where limited institutional capacity constrains effective support for start-ups (UNCTAD, 2025).

STI parks can play a central role in addressing these challenges by supporting both early-stage activation and the development of advanced entrepreneurial capabilities:

- Fund practical learning formats that stimulate entrepreneurial intent, including hackathons, boot camps and pre-incubation;
- Support the development of competencies in entrepreneurial discovery, innovation management, financial strategy, venture development and scaling;
- Facilitate peer learning and role modelling through founder communities, mentoring networks and alumni groups;
- Partner with education and training institutions to embed entrepreneurship skills, combining technical and business expertise with innovation readiness;
- Introduce targeted mechanisms for underrepresented groups, including scholarships, inclusive incubation and tailored mentoring;
- Tailor capability-building to different phases, from ideation to scaling.

Developing capacity is not only about teaching skills. It is about enabling individuals to take action. STI parks can support this by ensuring that learning is accessible, continuous and directly connected to real-world challenges and opportunities.

## **C. Strengthen connectivity to mobilize resources**

Effective innovation ecosystems are not only well resourced but also well connected. Fragmentation among institutions, support functions and resource flows is a key barrier in many developing countries. STI parks must be equipped and empowered to coordinate, align and connect critical components of the ecosystem to unlock the full potential of available resources:

- Fund activities that build connectivity among ecosystem actors, including shared infrastructure, co-location and neutral platforms for collaboration;

Entrepreneurship  
grows where  
learning meets  
real action





- Support STI parks in integrating fragmented support, such as training, finance, incubation and market access, into coherent journeys;
- Invest in tools that enable dynamic resource flows, including digital platforms, mentorship and multi-use infrastructure;
- Align public support instruments to reduce redundancy and improve coordination.
- Mobilize diaspora communities as mentors, investors and ecosystem ambassadors;
- Align STI parks with international standards and partnerships that support scaling, collaborative development and cross-border collaboration;
- Promote thematic international positioning to build visibility and relevance in selected innovation fields.

STI parks must think locally and connect globally

Without strong connections among actors, phases and support structures, even well-designed interventions risk becoming isolated and ineffective. The value of an ecosystem lies not only in its individual components, but in the strength and quality of their interconnections.

## **D. Expand global connectivity and learning**

To thrive in the global economy, STI parks must operate as more than local platforms. They require structured connections to international markets, capital flows and learning environments. For many developing countries, this means not only exporting solutions, but also importing knowledge, partnerships and institutional legitimacy. Policymakers should support STI parks in building these connections in a deliberate and strategic manner:

- Support access to global markets and capital by working closely with trade and investment promotion agencies (for example, by helping start-ups prepare for international expansion), connect with potential buyers and participate in international demo days;
- Strengthen peer learning among STI parks through exchanges, training and collaborative innovation initiatives;

Global connectivity is not solely about scaling ventures internationally. It also enriches local ecosystems through continuous learning, knowledge exchange and strategic engagement with the global innovation landscape.

## **E. Provide targeted support to promote inclusive entrepreneurship**

Women and youth who are underrepresented in many developing countries' entrepreneurial ecosystems, have great potential to contribute to the flourishing of entrepreneurship in these countries, which will be conducive to the advancement of inclusive and sustainable development.

To this end, targeted measures are required to support them:

- Encourage government agencies responsible for gender and youth affairs to integrate entrepreneurship development into their work programmes, including awareness campaigns, and targeted training and mentoring initiatives;
- Set up centres of innovation and entrepreneurship at higher education institutions to provide early entrepreneurship education and mentoring for students to build their confidence in undertaking post-graduation ventures;





**Strengthening science, technology and innovation parks  
as catalysts for fostering entrepreneurship in developing countries**

- Launch scholarships and targeted training initiatives in entrepreneurial disciplines for women and youth to build practical skills and confidence in business development;
- Promote structured collaboration between higher education institutions and the private sector to deliver experiential entrepreneurship training and support student ventures, especially for young entrepreneurs;
- Establish youth-dedicated innovation zones or technology parks, as piloted in Uzbekistan (Uzbekistan, Ministry of Higher Education, Science and Innovations, 2025), to address the particular constraints faced by young entrepreneurs;
- Organize targeted innovation competitions to identify and support promising women and youth entrepreneurs and raise the visibility of inclusive entrepreneurship;
- Develop peer-learning networks to support both women and youth entrepreneurs, building role models and support systems;
- Create dedicated financial instruments, such as micro-grants, seed funds, and soft loans, aimed at reducing capital barriers for women- and youth-led ventures.

Promoting inclusive entrepreneurship not only expands access to opportunity for women and youth but also widens the pool of potential entrepreneurs for local STI parks.







## VI. Conclusions

STI parks hold significant, yet often untapped, potential to catalyse innovation-driven entrepreneurship in developing countries. This potential depends not on any single input, but on the strength of connections among actors, resources and stages of the entrepreneurial journey. In environments where support systems are fragmented and trust is limited, STI parks can offer the coordination, continuity and relational infrastructure needed to transform isolated initiatives into functioning innovation ecosystems.

Policymakers should recognize STI parks not merely as passive service providers, but as active orchestrators of innovation ecosystems. To fulfil this role, STI parks require clear mandates, outcome-oriented funding and access to international partnerships and learning networks. With the right policy support, they can effectively connect talent, capital, infrastructure and markets, unlocking entrepreneurship as a powerful driver of inclusive and sustainable development.

STI parks thrive on connection, not isolation





## References

- Cyberview Sdn Bhd (2025). Cyberview Living Lab. Cyberjaya. Malaysia. Available at <https://www.cyberview.com.my/business/cyberview-living-lab>.
- Economic Commission for Europe (2022). *Interim Sub-regional Innovation Policy Outlook 2022: Eastern Europe and the South Caucasus*. United Nations publication. Sales No. E.22.II.E.41. New York and Geneva: xviii.
- Linköping Science Park (2023). New round of the growth program Swedish Scaleups. 7 September. Available at <https://linkopingsciencepark.se/new-round-of-the-growth-program-swedish-scaleups>.
- Närfelt KH (2024). Keystone-organisering för utveckling av innovationsekosystem. Vinnova internal document. Keystone PM v4. August.
- NIA (2022). Startup Guide Thailand. Bangkok. Available at [nia.or.th/frontend/bookshelf/5XkSyPbapQ0fv/638896eda62c9.pdf](https://nia.or.th/frontend/bookshelf/5XkSyPbapQ0fv/638896eda62c9.pdf).
- Parque Tecnológico São José dos Campos (2023). Relatório de Atividades da Associação Parque Tecnológico de São José dos Campos. São José dos Campos, Brazil. Available at <https://pitsjc.org.br/institucional/relatorio-de-atividades>.
- Tehnopol Science and Business Park (2025). See <https://innovatsioonifond.tehnopol.ee/en/home>.
- UNCTAD (2015). Policies to promote collaboration in science, technology and innovation for development: The role of science, technology and innovation parks. TD/B/C.II/30. Geneva. 9 February.
- UNCTAD (2024a). *Science, technology and innovation parks in Mozambique: Assessment and policy issues*. Geneva. Available at [https://unctad.org/system/files/official-document/tcsdtlinf2024d3\\_en.pdf](https://unctad.org/system/files/official-document/tcsdtlinf2024d3_en.pdf).
- UNCTAD (2024b). *Science, Technology and Innovation Parks Development in Ghana: Assessment and Policy Issues*. Geneva. Available at [https://unctad.org/system/files/official-document/tcsdtlinf2024d4\\_en.pdf](https://unctad.org/system/files/official-document/tcsdtlinf2024d4_en.pdf).
- UNCTAD (2024c). *Science, Technology and Innovation Parks in Uzbekistan: Assessment and Policy Issues*. Geneva. Available at [https://unctad.org/system/files/official-document/tcsdtlinf2024d7\\_en.pdf](https://unctad.org/system/files/official-document/tcsdtlinf2024d7_en.pdf).
- UNCTAD (2025). *Science, Technology and Innovation Parks Development in Mongolia: Assessment and Policy Issues*. Geneva. Available at [https://unctad.org/system/files/official-document/tcsdtlinf2025d1\\_en.pdf](https://unctad.org/system/files/official-document/tcsdtlinf2025d1_en.pdf).
- United Nations Development Programme (2023). *Gender Digital Divide Assessment: Uzbekistan. Analytical review "Gender Digital Divide: Uzbekistan"*. Available at [www.undp.org/sites/g/files/zskgke326/files/2023-03/Final\\_Gender%20Digital%20Divide%20in%20Uzbekistan\\_d.pdf](https://www.undp.org/sites/g/files/zskgke326/files/2023-03/Final_Gender%20Digital%20Divide%20in%20Uzbekistan_d.pdf).
- Uzbekistan, Ministry of Higher Education, Science and Innovations (2025). Modern youth technopark launched in Karshi. See [https://www.linkedin.com/posts/kongratbay-sharipov-89a655227\\_openingabrceremony-technopark-highereducation-activity-7342722393439625218-duf1/?utm\\_source=share&utm\\_medium=member\\_desktop&rcm=ACoAACV6CIQBxeWqqOuJeWk05j9k9enutxVUov8zzzzz](https://www.linkedin.com/posts/kongratbay-sharipov-89a655227_openingabrceremony-technopark-highereducation-activity-7342722393439625218-duf1/?utm_source=share&utm_medium=member_desktop&rcm=ACoAACV6CIQBxeWqqOuJeWk05j9k9enutxVUov8zzzzz).











[unctad.org](https://unctad.org)













[unctad.org](https://unctad.org)