Innovation and Entrepreneurship Alliance for Digital Development

Foresight brief series

Shaping the future of startups and SMEs

A product of the Innovation and Entrepreneurship Alliance for Digital Development initiative under the Telecommunication Development Bureau

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Acknowledgment and disclaimer

- The report, 'Shaping the future of startups and SMEs', is part of the ITU Foresight Brief Series, a product of the Innovation and Entrepreneurship Alliance for Digital Development initiative under the Telecommunication Development Bureau. This report has been produced with support from the South Africa G20 Digital Innovation Ecosystem Development Working Group, led by the Department of Communications and Digital Technologies (DCDT) of South Africa.
- 'Shaping the future of startups and SMEs' was prepared employing the methodology outlined in the ITU Playbook on Strategic Foresight developed by the Digital Transformation Lab, one of the vehicles of the Innovation and Entrepreneurship Alliance for Digital Development. This methodology aims to strengthen futures thinking capabilities within the Alliance and the ITU Membership.
- The research report was led and written by Ms Elaine France, under the supervision of Mohamed Ba, Head of the Digital Transformation Lab of the Alliance, with support from ITU consultants Udita Chaturvedi and Sarra Kouada-Lakdhar.
- The team would like to thank Mr Jim Paterson, Ms Jeanette Morwane, and Mr Craig Meyer from DCDT for their valuable support. We would also like to extend our gratitude to members of the G20 members for their inputs, who have contributed to the development of this report. In addition, the team extends special appreciation to the Government of South Africa for providing the opportunity to make this report possible.
- The information presented in this profile reflects inputs collected through surveys, stakeholder engagements, and workshops. These were further validated through a structured literature review as part of the profile development process. The report has also been peer reviewed by the G20 Membership and Strategic Foresight thematic group of the Expert Network of the Alliance.
- The report draws on a range of strategic foresight tools and frameworks from the ITU Playbook to guide its analysis. This presentation provides an overview of the key findings from the foresight study.
- The report contributes to the ITU-D priority of Digital Transformation and supports the outcome of strengthening Member States' capacity to integrate ICT innovation into their national development agendas.

Foreword

Startups and small and medium-sized enterprises (SMEs) are the lifeblood of innovation and economic resilience. They drive job creation, fuel competitiveness, and bring forward the bold ideas that shape the future of our societies. As the world undergoes profound economic and technological shifts, it is increasingly evident that unlocking the full potential of startups and SMEs requires more than traditional approaches to enterprise development. New models of support, financing, and collaboration are needed to keep pace with the speed of change.

This foresight brief, "Shaping the future of startups and SMEs", invites us to reimagine entrepreneurial ecosystems through the lens of digital transformation and innovation. The brief is a product of the Innovation and Entrepreneurship Alliance for Digital Development. This series envisions equitable futures and inspires countries to shape digital ecosystems that can thrive in an evolving world.

Harnessing ICTs and emerging technologies can empower entrepreneurs to scale faster, access global markets, and build resilience against future uncertainties.

Digital platforms, artificial intelligence, advanced connectivity, and cross-border and cross-sectoral innovation are already redefining how enterprises operate, compete, and grow across borders.

At the same time, fostering innovation is not only about technology. It is about inclusivity, ensuring that entrepreneurs from all communities—whether women, youth, or those in underserved regions—can access the resources, networks, and skills needed to thrive. It is about building trust between the public and private sectors, encouraging cross-border and cross-sector partnerships, and nurturing entrepreneurial cultures that value creativity, adaptability, and shared prosperity.

Foresight provides a unique opportunity to explore different futures for startups and SMEs, helping policymakers and ecosystem actors to anticipate risks, seize emerging opportunities, and design policies and programmes that remain agile in a changing world. By bringing diverse stakeholders together to co-create strategies, foresight strengthens our collective capacity to shape innovation ecosystems that are inclusive, future-oriented, and globally connected.

The International Telecommunication Union Development Bureau remains committed to supporting our Membership in this transformation journey. I look forward to seeing how this foresight report will inform national priorities and inspire bold action. ITU stands ready to work with our Membership to put these insights into practice and to build startup and SME ecosystems that are inclusive, innovative, technology proof, and future-ready.

Dr Cosmas Luckyson Zavazava
Director
Telecommunication Development Bureau (BDT)
International Telecommunication Union

Foreword

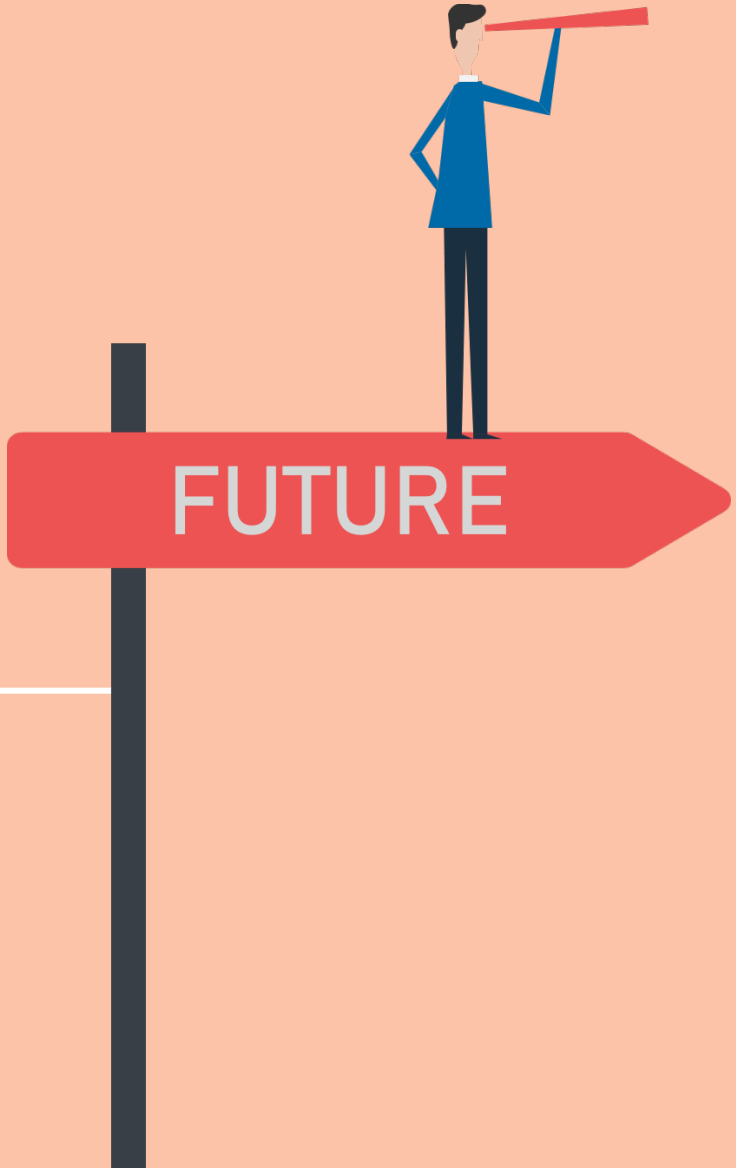
Startups and small and medium-sized enterprises (SMEs) are central to building inclusive, resilient, and sustainable economies. They drive innovation, create jobs, and bring forward the ideas that transform societies. In a rapidly evolving world marked by volatility and uncertainty, equipping these enterprises with the capabilities to thrive is not only an economic necessity but also a social imperative.

This foresight brief, "Shaping the future of startups and SMEs", highlights how digital transformation and strategic foresight can guide policymakers, entrepreneurs, and ecosystem actors in navigating change. It explores how emerging technologies—from advanced connectivity and artificial intelligence to cross-border platforms—can unlock new opportunities while ensuring that women, youth, and underserved communities are not left behind.

As Co-Chair of the ITU Digital Innovation Board, I welcome this report as a valuable contribution to the global dialogue on future-ready innovation ecosystems. I trust that its insights will inspire governments, industry, and civil society to work together in strengthening startup and SME ecosystems as engines of sustainable development and inclusive prosperity.

Dr. Neeraj Mittal
Secretary (Telecom), Government of India
Co-Chair, Digital Innovation Board

1. Introduction



1.1 Futures thinking and strategic foresight

An approach to navigate uncertainty and shape desired futures

Futures thinking is the practice of exploring how different futures might unfold by identifying trends, emerging issues, and critical uncertainties. It challenges linear thinking and invites us to imagine a range of plausible futures rather than rely solely on past patterns.

Strategic foresight is the structured application of this approach to inform present-day decisions. It blends trend analysis with creative exploration, helping us prepare for multiple possibilities, anticipate disruptions and build more resilient systems.

Together, futures thinking and strategic foresight provide a powerful toolkit for navigating change.

Instead of predicting a single outcome, they prompt us to ask deeper questions: *What might happen? What should we be prepared for? And what future do we want to create?* In doing so, these approaches shift the focus from reacting to events as they arise to proactively engaging with the forces shaping tomorrow.

Strategic foresight equips institutions, governments and communities with the agility to adapt—and the imagination to innovate. Ultimately, it expands our field of vision so we can move forward with clarity and purpose, even when the road ahead is uncertain.

1.2 The importance of futures thinking

Addressing complexity and disruption in a VUCA world

Need for futures thinking in today's world

We live in an era of accelerating technological advancement, climate uncertainty, demographic shifts, and geopolitical turbulence. This environment, often described as VUCA—volatile, uncertain, complex, and ambiguous—demands new ways of thinking.

Futures thinking is essential because it shifts the focus from short-term fixes to long-term preparedness. It enables policymakers, innovators, and communities to anticipate disruptions and harness emerging opportunities. In doing so, it fosters a mindset of resilience and adaptability. Futures thinking is not only about survival—it is about shaping the kind of future we wish to inhabit.

It compels us to look beyond immediate pressures and engage in deeper questions: What kind of society are we building? Who benefits? Who might be left behind? In answering these, futures thinking becomes an essential compass for navigating uncertainty—an invaluable tool for building more inclusive, sustainable, and forward-looking systems.

Futures thinking to enhance long-term planning

Long-term planning often struggles to keep pace with the rate of change in today's world. Futures thinking reinvigorates the planning process by anchoring it in possibility rather than assumption. Through structured scenario development, horizon scanning, and the identification of key drivers of change, it challenges existing mental models and opens new strategic options.

Futures thinking allows organisations and governments to test the resilience of their plans under multiple future conditions. It brings clarity to complex environments by highlighting not just what might happen, but what could be done in response. As a result, decision-makers can allocate resources more effectively, prioritise innovation, and align initiatives with emerging needs.

By integrating futures thinking, planning becomes a dynamic, iterative process—better equipped to handle shocks, adapt to transitions, and pursue transformational outcomes. Ultimately, it strengthens our ability to act with foresight today for a more equitable tomorrow.

V Volatile: The environment is marked by rapid, unpredictable shifts that require swift and adaptive responses.

U Uncertain: The environment forces decision-making in the absence of clear or complete information.

C Complex: The environment involves multiple interconnected factors and moving parts, making it difficult to isolate cause and effect.

A Ambiguous: The environment presents unfamiliar situations that may lack precedent or clear interpretation, challenging existing expertise.

1.3 Introducing the foresight brief series

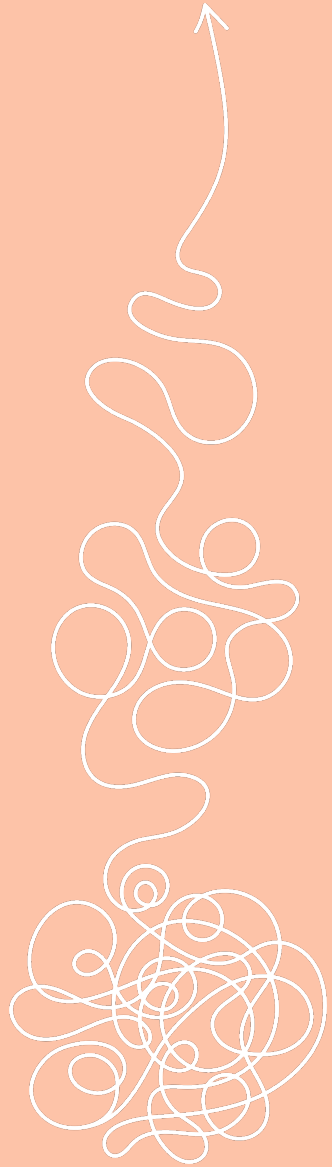
Helping members stay ahead of the curve

The Foresight Brief Series is a collection of research reports created to support ITU membership in navigating the uncertainties of an increasingly digital future. Developed by using strategic foresight methodologies and presented in an easy-to-consume format, the Series helps stakeholders stay ahead of the curve by identifying weak signals, analysing trends, and exploring emerging disruptions that could reshape key sectors.

Each report offers scenario-based insights, enabling policymakers and ecosystem actors to consider diverse futures and design forward-looking strategies that are both resilient and inclusive.

Far from predicting the future, the Foresight Brief Series invites a shift in mindset—from short-term reaction to long-term preparedness.

By presenting carefully curated futures intelligence, it empowers members to engage in trends-based foresight and make informed decisions in a rapidly evolving environment. The Series is designed not as an endpoint, but as a starting point for dialogue, collaboration, and co-creation among stakeholders.



1.4 ITU’s approach to foresight

A structured and collaborative methodology to anticipate change

ITU’s Strategic Foresight methodology provides a structured yet flexible approach to help stakeholders anticipate change, navigate uncertainty, and accelerate digital transformation. By integrating systems thinking, design thinking, and futures thinking, ITU’s ecosystem-based approach fosters collaboration and co-creation, while remaining aligned with national, regional, and global development goals. This empowers countries and communities to shape inclusive, resilient, and future-ready societies.

The methodology underpinning this research brief is drawn from ITU’s Playbook on Strategic Foresight, a step-by-step, tool-based guide that supports each stage of the foresight journey. The process aims to democratise foresight knowledge and practice, making these powerful tools accessible to a wide range of actors.

The foresight journey unfolds across several key stages. It begins with framing and scanning environmental signals and trends to identify early drivers of change. These drivers are then analysed and mapped to assess their potential impact and uncertainty, laying the groundwork for exploring future possibilities. By pairing impactful and uncertain drivers, a range of plausible scenarios are created to highlight emerging opportunities and challenges. From these, a preferred scenario is chosen and shaped through the creation of a forward-looking action roadmap, which is further reinforced by mechanisms that help keep recommendations responsive, relevant, and managed by the ecosystem over time.

This ecosystem-driven methodology reflects the principles of ITU’s innovation framework, empowering countries and communities to shape inclusive, resilient, and future-ready communities.

Check out the
Strategic Foresight 101 course
on ITU Academy
to learn more

1.5 Objectives of the foresight study

Unlocking the potential of startups and SMEs

Startups and small and medium-sized enterprises (SMEs) are central to building inclusive, resilient and sustainable economies. These enterprises serve as critical levers for employment, innovation and social transformation. Yet persistent barriers—ranging from limited access to finance and markets to regulatory and capacity constraints—continue to limit their potential impact.

This foresight brief responds to these challenges by exploring how startup and SME ecosystems can be strengthened to advance solidarity, equality and sustainability. The research focuses on four interlinked objectives:

Inclusive engines: Position startups and SMEs as engines of job creation, youth empowerment, inter-generational and gender equity, for inclusive economic growth.

Market opportunities: Expand access to global, regional local markets for startups and SMEs, especially those in developing economies and emerging industries, to promote global trade integration.

Open technology collaboration: Promote inclusive, responsible and innovative cross-border technology development that enables digital transformation across the enterprise ecosystem.

Access to global resources: Ensure equitable and sustainable access to financial, knowledge and innovation resources for all G20 members and their partners, fostering meaningful global collaboration.

By drawing on strategic foresight, this brief calls for collective action to strengthen the ecosystems that enable startups and SMEs to thrive. It advocates for policies that foster entrepreneurial ambition, promote responsible use of emerging technologies and support knowledge exchange and equitable access to global resources – across G20 economies and beyond.

Inclusive engines

Market opportunities

Open technology collaboration

Access to global resources

1.6 The case for startups and SMEs

From local resilience to global impact

Startups and SMEs are widely recognised as the backbone of global economies—driving employment, economic productivity innovation. Startups are young, innovation-driven ventures focused on building and testing new ideas with the goal of rapid growth and scale. SMEs, on the other hand, are established businesses that may grow steadily over time. Representing 90% of all businesses and accounting, on average, for 70% of total employment and 50% of GDP worldwide (United Nations, 2025; IFC World Bank Group, n.d.), SMEs are essential to inclusive and sustainable growth. Informal micro and small enterprises also play a critical role, employing nearly 60% of people globally and up to 90% in the world's lowest-income regions (UNDP, 2023; Bayraktar & Algan, 2019; Burger & Fourie, 2019).

As the digital economy expands, the relevance of startups and SMEs continues to grow. Telecommunication/ICT digital technologies and platforms have dissolved traditional physical borders, enabling cross-sector and cross-border exchange of goods, services and data at unprecedented speed and scale. This evolution opens new opportunities for even the smallest enterprises to participate in domestic and global markets, create local impact and foster innovation across sectors.

Across Africa, despite SMEs contributing 50-60% of GDP, only 20% currently use digital technologies (Geneva Internet Platform DigiWatch, 2025). This contrasts to 73% of SMEs in the EU having 'basic digital intensity', with 44% buying cloud service (Eurostats, 2025); and in India, 75% of small businesses report daily use of digital tools, with 23% already adopting AI and 73% planning to by 2025 (PayNearby, 2025).

By 2035, more than 1.2 billion young people will enter working age, yet only 420 million jobs are expected to be created (World Bank, 2025). An estimated 600 million jobs will be needed by 2030 to 'absorb the growing global workforce' (DESA, 2025). Startups and SMEs are thus uniquely positioned to help close this gap, as they offer pathways to meaningful employment, digital empowerment all communities, including youth and women (UN Women, n.d.; DESA, 2025)

For informal enterprises, despite use of mobile money and physically crossing borders to trade (Ebrahim & Van den Berg, 2024), a lack of formal identity presents specific barriers to entry, particularly when cross-border trade demands financial credibility, regulatory compliance, and enforceable contracts, as well as adherence to legal, tax, standards, and customs requirements. Meanwhile, formal startups and SMEs have evolved a virtuous circle of business-to-business support, with digital platforms, e-commerce and logistics enabling enterprises to reach global markets. Fintech and mobile money are streamlining transactions and cash-flow for businesses of all sizes; cloud-services and AI supply chain and operations optimization are creating the potential for enterprises to compete effectively, while minimizing costs. The growth of sustainability-tech and its implementation by startups and SMEs is creating the possibility of reduced environmental impact in value chains (OECD, 2025).

However, not all change leads to lasting impact. The pace of technological change is bringing a new reality that the multi-stakeholders shaping global trade, including enterprise owners, must respond to. While some shifts are temporary, others redefine how economies function. To ensure meaningful and enduring progress, it is essential to invest in systemic transformation that enables all countries to support startups and SMEs to link across sectors and operate seamlessly across borders in the spirit of solidarity, equality and sustainability. Global institutions have set out strategic frameworks for increasing cross-border startup and SME trade (WTO, 2025; UNCTAD, 2025), with continued focus on measurable targets for increasing broadband access for enterprises, without which they cannot function efficiently (Broadband Commission for Sustainable Development, 2025). By investing in agile, inclusive digitally empowered enterprises, countries can ensure that SMEs continue to provide stable employment and economic resilience, while startups unlock frontier innovation and global scale – together serving as powerful agents of social transformation and sustainable development.

1.7 From potential to performance

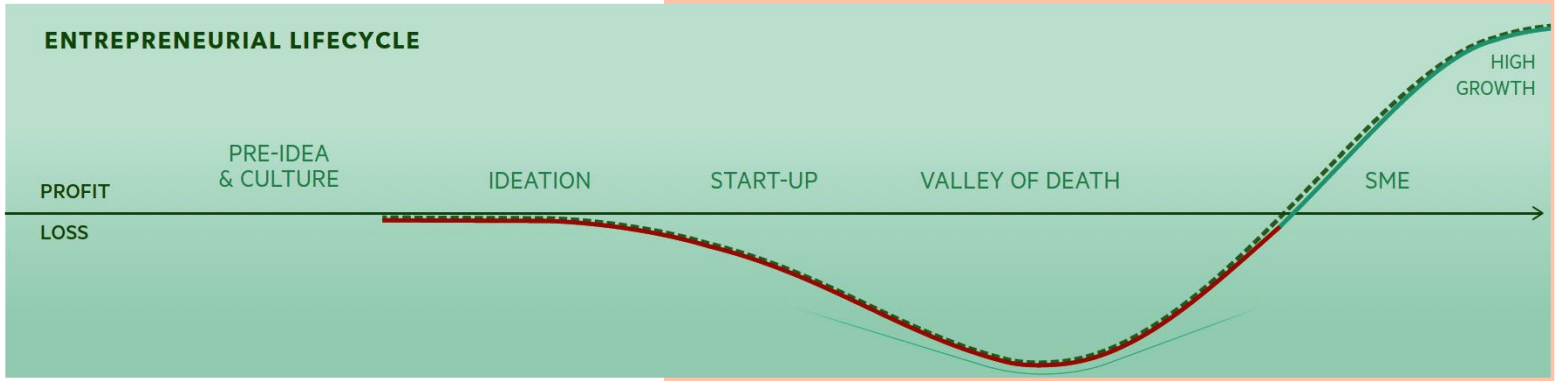
Enabling growth through ecosystem support

The entrepreneurial lifecycle charts a venture's path from early curiosity and ideation to start-up launch and potential transition into a high-growth SME. Yet, between promise and performance lies the most perilous phase—the "valley of death"—where many enterprises falter due to limited access to ecosystem-wide coordinated support.

Both startups and SMEs are expected to drive innovation, generate employment and contribute to inclusive and sustainable growth—but they cannot do so on ambition alone. Each stage of their development, from ideation to scale, requires targeted and coordinated support. This includes enabling policies, access to capital, skills development, digital infrastructure, market pathways and research platforms for knowledge exchange.

Whether scaling rapidly or growing steadily, both startups and SMEs need deliberate investment across these areas to avoid stalling before they can deliver lasting impact. This journey cannot be navigated in isolation. Strategic alignment across stakeholders—governments, academia, finance, corporates support networks—is essential to help enterprises overcome systemic barriers and realise their full potential. Only then can we unlock the transformative value of startups and SMEs and ensure they grow into engines of sustainable development.

The image on this page reflects the lifecycle of a company, and notably identifies the "valley of death", a period after ideation when innovators require significant investment and support, and where there is a high risk of business failure. A successful innovation ecosystem supports as many innovators as possible to cross the valley of death and establish companies that may eventually become high-growth firms.



Source of tool: ITU Ecosystem Maturity Map

2. Sensing in a VUCA world

2.1 Environment scanning

This section presents the first step in the strategic foresight process: identifying early signals and emerging trends in the external environment. It begins with scanning the horizon across diverse domains—such as social, technological, economic, environmental, political, legal, and ethical—to surface patterns of change and map underlying forces shaping the future.

This exploratory phase lays the foundation for the foresight process by framing the scope of inquiry, revealing cross-cutting influences, and highlighting both dominant trends and marginal signals that may point to emerging disruption.

2.1.1 Evolving landscape of startups and SMEs in Africa and beyond

Exploring social signals of change to uncover emerging trends

SOCIAL dynamics—encompassing demographics, culture education—are profoundly shaping the future of enterprise formation and innovation.

As the global workforce experiences a generational transition marked by a retiring older cohort and over 1.2 billion youth expected to enter the workforce by 2035 (World Economic Forum, 2025; World Bank, 2025; The Conversation, 2024), startups and SMEs are emerging as providing critical pathways to meaningful employment and community impact.

Gen-Z, as digital natives, show a strong appetite for entrepreneurship, particularly with a focus on addressing social and environmental challenges (Cirstea & Anagnoste, 2023).

There is also a rise in digital nomadism and gig-entrepreneurship, enabled by digital infrastructure and flexible visa regimes, this is creating new categories of borderless micro-enterprise and talent circulation (ILO, 2022).

However, to effectively build and scale enterprises—especially across sectors and borders—this emerging talent pool requires cross-cutting innovation skills and foundational human capacity, including digital literacy, financial and economic competencies, access to capital, sustainability know-how, cybersecurity awareness and entrepreneurial readiness (ILO, 2024). This is a growing area of focus, particularly through tailored skills development programmes to capacity-build with youth in conflict and fragile settings, as high-pressure environments, to support them in creating livelihoods (ILO, 2019). The focus on prioritising qualitative measures of wellbeing, to enable robust economies (OECD, 2018) and increasing fear of failure amongst founders, is shaping ecosystem support services (Global Entrepreneurship Monitor, 2025).

Moving beyond GDP allows policymakers to prioritize qualitative measures of well-being, such as mental health, work-life balance, and access to support networks, which are critical for startup and SME founders operating in high-pressure environments. By valuing these broader indicators, ecosystems can provide targeted resources—like mentorship, flexible work arrangements, and resilience training—that help prevent burnout and sustain founder productivity and innovation.

At the same time, long-standing barriers for women and marginalised communities are being challenged, with growing recognition of the untapped trillions in economic value that women entrepreneurs could contribute to global GDP with the right support (McKinsey Global Institute, 2015; World Bank, 2024; Mastercard Foundation, 2025).

Millennials and Gen-Z, as digital users and entrepreneurs, are also shaping expectations in the digital business landscape, demanding seamless UX/UI and one-stop shop experiences across B2B marketplaces—key tools in the digital transformation of businesses of all sizes (Demandgen.com, 2025). Digital platforms and peer-led communities are enabling young founders to learn, test ideas and grow beyond traditional pathways.

Meanwhile, the growth of regional and local innovation hubs is expanding the footprint of startups and SMEs, creating inclusive entry points for locally rooted yet globally connected enterprises (RISP, n.d.; Entrepreneur, 2025). These hubs, especially when combined with one-stop shop support, enhance access to tailored capacity building, mentoring, funding and incentives, as well as to cross-sector and cross-border trade compliance guidance (ABSA, n.d.; Green Economy Coalition, n.d.). Yet, despite the growing range of support initiatives, many remain fragmented, siloed and lack systemic continuity—limiting their long-term impact.

2.1.1 Evolving landscape of startups and SMEs in Africa and beyond

Exploring technological signals of change to uncover emerging trends

TECHNOLOGICAL trends point to widening access to digital infrastructure, improved connectivity and accelerated adoption of emerging technologies. Investments in broadband expansion, cloud computing and national digital ID systems are creating foundational layers for enterprise participation in digital markets, particularly in underserved regions (World Bank, 2024; UNCTAD, 2023).

At the same time, open access to technological research and inclusive innovation programmes are enabling smaller firms to co-develop or adopt advanced solutions, including AI, blockchain and Internet of Things (IoT), reducing the barriers to entry into high-growth sectors (OECD, 2024; WIPO, 2023). Fintech innovation is rapidly transforming how startups and SMEs operate and access markets. The expansion of API gateways for multi-payment providers is boosting digital payment interoperability, reducing costs and improving trust (BIS, 2022).

Digital trade infrastructure is evolving as a critical enabler of SME internationalisation. Tools such as e-invoicing, digital identity and e-signatures are reducing cross-border systems fragmentation and compliance burdens, while unlocking operational efficiencies, reducing the risk of non-compliance for enterprises. (Santoro, 2025; Alketbi, 2024). Meanwhile, the evolution of digital customs platforms is simplifying and speeding up clearance processes and reducing costly delays (B20 Saudi Arabia, 2020).

At the same time, advances in cloud platforms, emerging tech embedded services are supporting agility, automation and market expansion. Demand for cybersecurity, data privacy and digital identity tools is also increasing as digital engagement grows– spurring innovation in identity verification systems to safeguard operations and protect customer data (Softcircles.com, n.d).

Many G20 are investing in AI models and digital tools tailored to local languages and cultural contexts, which directly impacts inclusivity and startup toolkits. The digitisation of intellectual property (IP) systems and tech transfer processes is further empowering innovation-led enterprises. By accelerating patent registration, reducing the risk of infringement and supporting faster licensing, these systems are helping startups commercialise innovation and build defensible value across borders (Karlsruhe, 2023; Techresearchs, 2025; EUIPO, 2025; European Union, n.d.). Data interoperability remains a critical challenge, although multilateral digital trade agreements and regulatory alignment efforts are helping to harmonise standards and create frameworks for seamless data interoperability and exchange across jurisdictions (Australia DFAT, 2020).

2.1.1 Evolving landscape of startups and SMEs in Africa and beyond

Exploring economic signals of change to uncover emerging trends

ECONOMIC dynamics signal a transformation in how startups and SMEs access markets, manage operations and attract capital. Fintech, e-commerce, logistics and digital marketing tools are easing cashflow constraints, reducing transaction costs and improving access to customers—especially for informal enterprises transitioning towards formalisation (UNDP, 2023).

Mobile phone and smartphone penetration is rising globally (UN ITU, 2023), enabling small businesses to leverage mobile money services for faster payments, greater financial inclusion and easier access to training and advisory content. This digitisation is also increasing visibility and transparency, fostering investor trust. AI and big data are transforming investor decision-making, offering greater clarity on enterprise performance and social impact (Straut, 2024).

Government-led investments in startups and SMEs are helping catalyse private and foreign investment (OECD, 2024; Koreen, Marchese, Jimenez, 2024). Using digital tools to support informal enterprises, especially micro-enterprises, to formalise - digital formalisation - is a major enabler of future economic resilience in some parts the world but often lacks tailored regulatory scaffolding. Entrepreneur mobility schemes, such as digital visas, are further supporting talent attraction and bolstering high growth sectors (European Commission, 2025). Technology is also enabling new business models with leaner footprints. AI-powered tools allow 'solopreneurs' and 'micro-multinationals' to operate at scale across markets with minimal overheads, unlocking early-stage internationalisation (Starter Story, 2025; BDO, 2023).

Meanwhile, geopolitical shifts are accelerating the adoption of friend-shoring (CSEP, 2024) and near-shoring (Gulacha, 2025) strategies to safeguard supply chains and bring products to market faster. Alongside these shifts, countries are transitioning towards more innovation-driven economies. Governments are increasingly investing in knowledge-based industries, R&D commercialisation and high growth entrepreneurship to boost long-term competitiveness. Initiatives such as national startup missions, digital economy blueprints and tech visa schemes signal a strategic shift toward ecosystems where innovation, rather than resource endowments, becomes the engine of economic resilience and value creation.

2.1.1 Evolving landscape of startups and SMEs in Africa and beyond

Exploring environmental signals of change to uncover emerging trends

ENVIRONMENTAL factors are reshaping enterprise priorities and market dynamics. As planetary boundaries are exceeded (Rockstrom et al., 2024), climate change and biodiversity loss continues to intensify environmental shocks—from extreme weather to resource scarcity and disasters—which directly disrupt SME operations and value chains.

These vulnerabilities are prompting a global shift towards climate resilience and sustainability in enterprise development. The application of Earth Law (Earth Law Center, n.d.) in nations, serves as a further catalyst ensuring that green-tech, climate tech and agri-tech enterprises are proliferating, offering solutions in renewable energy, water and waste management sustainable food systems (WEF, 2023; EY, 2023).

Sustainability compliance is now a prerequisite for market access in many jurisdictions (Mastercard, 2024; UNCTAD, 2024), while affordable plug-and-play tools for emissions tracking, product traceability and ESG reporting (BCG, 2021; Kanaan & Gambetta, 2025) are helping even the smallest businesses meet growing regulatory and consumer expectations.

New frontiers—such as space-tech—are also emerging as enablers of climate action, offering free access to environmental data for business innovation (World Space Week, n.d.). Adoption of sustainability technologies and standards not only opens access to eco-conscious markets, but also strengthens investor confidence, supports progress towards G20 countries' Nationally Determined Contributions (NDCs) and positions startups and SMEs to lead in the global shift toward circular, low-impact economies.

2.1.1 Evolving landscape of startups and SMEs in Africa and beyond

Exploring political signals of change to uncover emerging trends

POLITICAL and policy trends reveal growing governmental recognition of entrepreneurship as a driver of inclusive economic transformation. Across the G20 and beyond, governments are introducing national digital economy and AI startup strategies that prioritise enterprise-led innovation. These include sector-specific incentives, talent mobility schemes and public venture capital to foster the growth of startups and SMEs (UN ITU Experts Survey, 2025).

In response to global uncertainty, several governments are shifting from laissez-faire approaches to more active techno-industrial policies—targeting local value chains, strategic sectors and public procurement to build resilience and boost national competitiveness (UNCTAD, 2024; OECD, 2024).

Public procurement is increasingly seen as a tool to stimulate innovation, with governments adopting SME quotas and innovation-friendly bidding processes. However, many systems still struggle to ensure startups can compete on fair terms with larger incumbents, limiting the impact of procurement as a market-entry and scaling mechanism (OECD, 2022; UNDP, 2025).

Simultaneously, digital sovereignty is gaining traction, with more countries asserting control over data, platforms and infrastructure, which may affect the ability of startups to scale internationally and navigate cross-border compliance (Chatham House, 2024).

There is also a growing push to democratise policymaking by including youth, informal entrepreneurs and startups in regulatory discussions—through Startup Acts, innovation councils, or digital consultation platforms—though the depth of influence varies across countries (World Bank, 2025).

Startups are increasingly part of soft power and foreign policy, with embassies facilitating startup exchange, innovation attachés and international co-incubation (Brookings, 2023). Some countries are pioneering smart regulatory frameworks, incorporating RegTech tools, dynamic regulatory sandboxes and outcome-based rules to govern emerging technologies more responsively (BIS, 2024).

Standalone Digital Economy Agreements (DEAs) between countries are also being developed to harmonise standards in areas such as data flows, e-payments, AI and governance digital IDs—laying the groundwork for smoother cross-border transactions and enterprise growth (MTI, n.d.).

2.1.1 Evolving landscape of startups and SMEs in Africa and beyond

Exploring legal signals of change to uncover emerging trends

LEGAL developments across the G20 and beyond are increasingly focused on harmonising standards and strengthening enterprise trust in digital operations. Governments are collaborating to align frameworks in customs, e commerce regulations and data governance interoperability (NAA, n.d.; OECD, 2023; World Bank, 2021; Mirakl, 2025).

These coordinated efforts aim to reduce administrative burdens and simplify compliance processes, thereby unlocking efficiencies for startups and SMEs. The integration of digital IDs across supply chains is also gaining traction, enhancing traceability, reducing transaction costs and facilitating more secure, seamless trade.

At the same time, regulatory technology (RegTech) is expanding rapidly—often developed by and for SMEs—to help enterprises remain compliant with evolving tax, data, payment and legal requirements. Valued at $15 billion in 2024, the RegTech sector is projected to grow to $82 billion by 2032 (Global Government Fintech, 2020; Fortune Business Insights, n.d.). These technologies are not only reducing compliance costs but also enabling real-time responsiveness to regulatory changes, making it easier for smaller enterprises to adapt and scale in complex legal environments.

Further, emerging legal instruments are addressing AI bias, particularly in hiring, credit scoring and facial recognition—impacting startup products and compliance. In parallel, legal infrastructure itself is becoming more digitally enabled. Countries are investing in platforms for digitised IP protection, open contracting and streamlined dispute resolution, allowing startups to safeguard innovation, engage in public procurement and build trust with global partners more efficiently (WIPO, 2023; OECD, 2024).

The convergence of these efforts is gradually levelling the playing field—empowering startups and SMEs to participate more fully in global value chains and digital markets, with the confidence that their rights, data and operations are supported by interoperable and forward-looking legal frameworks.

2.1.1 Evolving landscape of startups and SMEs in Africa and beyond

Exploring ethical signals of change to uncover emerging trends

ETHICAL considerations are gaining prominence as startups and SMEs navigate an increasingly complex digital landscape. As technologies such as AI and data-driven platforms become integral to business operations, entrepreneurs are being called upon to uphold trust, transparency and accountability in how they manage data, content and digital tools (Global Entrepreneurship Monitor, 2025). Issues such as data privacy, intellectual property protection and the integrity of AI-generated content are no longer peripheral concerns—they are central to regulatory compliance, market access investor and consumer trust.

At the same time, the environmental footprint of digital enterprises is coming under scrutiny. As more startups and SMEs scale using digital and AI-based solutions, the need to proactively manage electronic waste is growing. This aligns with broader ethical shifts that promote responsible business conduct, including the adoption of Earth Law principles (Earth Law Center, n.d.), Nature Governance frameworks (ICAEW, n.d.) and the use of alternative wellbeing indicators beyond GDP to shape long-term societal value (OECD, n.d.).

Enterprises that embed environmental, social governance (ESG) principles into their business models are increasingly viewed as resilient, future-fit and competitive. In particular, integrating privacy-by-design, responsible AI circular practices can position startups not only to comply with diverse data protection regimes across borders, but also to attract ethically aligned investors and meet rising consumer expectations. As ethical and sustainability standards evolve, startups and SMEs that anticipate and internalise these values will be better equipped to thrive in futures-conscious markets.

2.2 Drivers of change

This section explores the second phase of the foresight process: analysing and refining drivers of change. Building on insights from the scanning phase, key drivers are identified and assessed based on their potential impact on the future and the degree of uncertainty surrounding their realisation. Effort is also made to look for weak signals—early, often ambiguous signs of emerging change that may evolve into significant drivers over time.

This analysis helps prioritise which dynamics are most critical in shaping long-term trajectories.

2.2.1 Critical forces steering the landscape

Mega drivers shaping the landscape for tomorrow

The future of startups and SMEs is being shaped by a set of powerful drivers, each playing a vital role in influencing how the landscapes will evolve.

Drivers are key forces or underlying factors that influence or shape change within a system. They often interact and evolve over time, and reflect interdependencies on each other, shaping future scenarios. While these forces present both opportunities and challenges, their levels of impact and certainty vary. Together, however, they offer a composite view of the transformations ahead—across social dynamics, economic shifts, technological advances, environmental imperatives, and institutional reforms.

The drivers identified and presented on this page reflect the most influential forces likely to shape the trajectory of the startup and SME landscape globally. A shift in any one of these could fundamentally redirect the pathway of enterprises evolution.

Drivers	Impact	Uncertainty
Targeted policies, investment and incentives for SMEs and startups	High	High
Harmonization of cross-border regulations	High	Medium
Cybersecurity and data interoperability	High	Low
Access to funding, finance, capital and cash flow, fintech	High	High
Digital trade infrastructure	High	Low
AI-enabled tech transfer, IP management, market access	High	High
Social, ethical values, including trust in AI	Medium	High
Demographic shifts and youth employment	High	Medium
Talent development and talent attraction programmes	High	Low
Mass adoption of sustainability tech	High	Low
Informal economies	High	High

2.2.2 Unpacking the drivers of change

Understanding the impact and uncertainties surrounding the key influencers

Targeted policies, investment and incentives for Startups and SMEs are essential levers for economic inclusion, innovation and cross border growth. From tax breaks to digital trade agreements and micro-deals, well-designed frameworks can lower barriers, standardise digital transactions and foster trust in e-commerce (OECD, 2021). Yet, the long-term impact of these tools depends on political will, coherence across sectors and sustained investment (UNCTAD, 2021).

Harmonisation of cross-border regulations is essential for unlocking seamless global growth for startups and SMEs. Regulatory sandboxes allow enterprises to test innovations in controlled environments, reducing entry barriers and accelerating market access, while RegTech solutions automate complex, multi-jurisdictional compliance—cutting costs, mitigating risks and fostering trust in international trade (OECD, 2021). Harmonising standards for digital tax, IP and e-signatures can further reduce friction in cross-border transactions. However, progress remains uneven, with geopolitical tensions and fragmented coordination slowing momentum across regions.

Cybersecurity and data interoperability are pillars of trust and efficiency for startups and SMEs operating in cross-border digital economies (WEF, 2020; WEF 2021). These open new markets and financing channels through innovations like open banking and mobile credit scoring (GSMA, 2021). Meanwhile, as enterprises manage larger volumes of sensitive data, cybersecurity becomes critical (McKinsey, 2022; OECD, 2021). Robust protections build digital trust, whilst safeguard operations ensure regulatory compliance—but many SMEs lack the capacity to keep up with rising threats (Gartner, 2023). Without these pillars, inclusive digital growth remains at risk.

Access to funding, finance, capital and cash flow underpins the ability of enterprises to survive and grow. Fintech is expanding access through digital lending (OECD, 2023), embedded finance and real-time settlements (World Bank, 2023), thus reducing failure rates and enabling faster cross-border scaling. It also boosts trust and transparency in international trade via digital trade finance and smart contracts (WEF, 2021) and gives startups global market access through crowdfunding and neobanks (IMF, 2022), creating the conditions for enterprises to scale cross-sector and internationally more efficiently than ever before. However, regulatory fragmentation, evolving investor preferences and regional disparities in fintech adoption introduce high uncertainty to its full potential.

Digital trade infrastructure, including tools like e-invoicing, digital identity, online marketplaces and automated customs, enables startups and SMEs to reduce costs, access global markets and scale across borders (OECD, 2021). AI-powered insights further enhance competitiveness but uneven access to foundational digital infrastructure, especially in rural or underdeveloped areas, can limit the inclusiveness and full potential of this transformation (WTO, 2021).

AI-enabled tech transfer, IP management and market access empower startups and SMEs to accelerate the commercialisation of research and innovation, protect their intellectual assets and penetrate new markets through data-driven precision targeting (OECD, 2021). Technologies such as AI-driven patent landscaping and licensing platforms enhance the ability to leverage untapped R&D potential. However, inconsistent standards for IP protection, data privacy and algorithmic governance create a fragmented and uncertain environment for scaling innovation globally (WIPO, 2022).

Social and ethical Values, including trust in AI, are increasingly acting as silent yet powerful determinants of technological adoption. While AI offers transformative benefits for startups and SMEs—improving efficiency, customer insights and decision-making—public mistrust,

2.2.2 Unpacking the drivers of change

Understanding the impact and uncertainties surrounding the key influencers

ethical concerns and cultural resistance can stall progress, particularly when AI systems are perceived as opaque (OECD, 2022).

Demographic shifts and youth employment present both urgency and potential. By 2035, the global workforce will be significantly shaped by youth populations in emerging economies, requiring robust systems to absorb and productively engage new entrants (ILO, 2024). Startups and SMEs are well-positioned to provide agile, entrepreneurial pathways for youth employment (World Bank, 2025) but outcomes remain uncertain due to persistent education-to-employment gaps and limited access to digital infrastructure in many regions (WEF, 2025).

Talent development and talent attraction programmes, especially through local innovation hubs and one-stop capacity building centres, are essential for building the digital, financial, leadership and trade skills that SMEs need to compete in cross-border value chains (ITC, 2022), while also strengthening regional economies and boosting enterprise resilience (OECD, 2023). Digital skills support adaptation to market changes, while cybersecurity and financial literacy improve sustainability and operational efficiency (OECD, 2021). Yet, mismatches in education systems and unequal access to resources continue to limit how widely and effectively talent can be developed and retained (WEF, 2020).

Mass adoption of sustainability tech—ranging from green compliance tools to climate-tech solutions—is enhancing startups and SMEs competitiveness in cross-sector and cross-border trade (ITC, 2023). These technologies reduce emissions and operational costs while helping enterprises meet global sustainability standards and attract green finance (WEF, 2022; WEF 2023). Yet uptake remains uneven, particularly in resource-constrained environments where incentives, infrastructure or consumer demand are limited.

Informal economies, which account for over 60% of the global workforce (ILO, 2018), represent both a structural challenge and a powerful opportunity for inclusive enterprise development. Increasingly, digital tools are enabling informal economic actors to access finance, customers and markets (UNCTAD, 2023; ILO & OECD, 2022). However, integration remains uneven. Trust deficits, limited capacity-building pathways and policy blind spots continue to constrain the ability of informal enterprises to scale or transition sustainably.

2.2.3 Weak signals emerging at the periphery

Faint but critical signals of opportunity and disruption

Often overlooked or underestimated, weak signals are unpredictable forces that can either catalyse or hinder the evolution of systems. The following signals—though varied in maturity and visibility—warrant closer attention for their potential to shape the future.

Next-level digital trade infrastructure*:* Continuous upgrades in both physical and digital infrastructure—such as smart ports, automated customs systems, IoT-enabled supply chains and digital trade corridors—are expected to lower barriers to international trade (ICC and WTO, 2022). However, innovation and entrepreneurship ecosystems must evolve in parallel to fully capitalise on these advancements. For startups and SMEs, this reduces market entry costs, boosts competitiveness, builds trust and opens new global growth pathways.

Cross-sector data trusts*:* Data trusts designed to aggregate and share anonymised insights across industries could revolutionise the way startups and SMEs develop new products and services. By accessing dynamic, multi-sector data streams, enterprises can generate innovations not possible through siloed approaches (Paprica et al., 2020). For startups and SMEs, privacy-safe democratised access to pooled data facilitates innovation otherwise monopolised by large players and reduces compliance risks.

Sustainability-linked incentives and green trade Corridors*:* Green lanes, carbon-adjusted tariffs and sustainability certifications are emerging as levers of competitive advantage. As global supply chains prioritise low-carbon producers, SMEs that align with these expectations will be better positioned to attract green investment and integrate into international trade networks (Australia DFAT, 2024). For startups and SMEs, this early alignment is a strategic lever that increases long-term viability through access and partnership opportunities.

Informal women-owned enterprises in networks*:* In many developing contexts, women entrepreneurs are using social media platforms to form digital communities that facilitate peer learning, collective bargaining and greater visibility. These informal networks offer a promising grassroots approach to inclusive economic participation (TradeMark Africa, n.d.). For startups and SMEs, democratised access is a grassroots innovation models that provides a launchpad for growth.

Platform cooperatives and decentralised ownership models (DAOs)*:* Emerging forms of shared digital ownership—such as platform co-ops and DAOs—are redefining how startups and SMEs scale. Built on blockchain and shared data infrastructure, they offer more equitable value distribution and localised governance, especially in underbanked or low-trust contexts. Yet adoption remains nascent, constrained by regulatory ambiguity, technical complexity and unfamiliar governance models (Scholz & Schneider, 2017). For startups and SMEs, especially in fragile markets, new finance and governance models support scaling.

Rise of synthetic markets and virtual-only economies*:* Entire markets are emerging within virtual worlds—such as the metaverse, game-based commerce and AI-simulated environments—where virtual goods, AI-generated services and programmable money dominate. Startups and SMEs operating solely in these digital spaces may thrive, but others could struggle to remain relevant without major strategic shifts (PwC, 2022). For startups and SMEs, it offers the opportunity to tap into new demand streams, reinventing themselves by offering digital products, hybrid experiences, or services tailored to virtual economies.

3. Visioning the futures

3.1 The possible scenarios

This section presents the process of envisioning a diverse set of possible futures by examining how selected drivers of change, and the interplay of their pull and pull with each other, might interact over time. Through structured exploration, several scenarios are developed—each reflecting a different combination of risks, opportunities and systemic dynamics.

These scenarios are then assessed for their implications, including potential strengths, vulnerabilities, knock-on effects.

3.1.1 Exploring contrasting trajectories

Forces expected to critically influence system dynamics over time

To explore how the future of startups and SMEs landscape in G20 and beyond might unfold, this foresight study mapped key drivers of change—forces expected to significantly influence system dynamics over time.

From this broader set, the most impactful and uncertain drivers were prioritised based on their potential to shape investment behaviour, institutional response and ecosystem maturity. These drivers were then paired to reflect critical tensions or trade-offs likely to emerge in the coming decade. Each pair represents a distinct lens through which the future could evolve, producing a contrasting set of future scenarios. Together, these scenario sets allow stakeholders to stress-test current assumptions, anticipate divergent possibilities and design strategies that are resilient, inclusive future-ready.

For this study, four sets of driver pairings were explored to frame contrasting scenario logics and examine alternative trajectories of change along key axes of uncertainty:

Access to capital and fintech innovation + Talent development and talent attraction programmes (Liquidity vs. Human capital): Captures the trade-off between financial flow and the depth of skilled, entrepreneurial talent.

Harmonisation of cross-border regulations + Digital trade infrastructure (Policy alignment vs. Operational capacity): Highlights the tension between regulatory coherence and the digital systems needed to enable seamless trade.

Talent development and talent attraction programmes + Informal economies (Formal capacity vs. Informal integration): Explores the challenge of aligning formal education and skills pathways with the realities of informal entrepreneurial activity.

Targeted policies, investment and incentives for SMEs and startups + Access to funding, finance, capital and cash flow, fintech + Digital trade infrastructure + Talent development and talent attraction programmes (Strategic support vs. Systemic absorption): Explores the gap between comprehensive support measures and the ecosystem's capacity to absorb and translate them into sustainable enterprise growth.

Drivers	Impact	Uncertainty
Targeted policies, investment and incentives for SMEs and startups	High	High
Harmonization of cross-border regulations	High	Medium
Access to funding, finance, capital and cash flow, fintech	High	High
Digital trade infrastructure	High	Low
Talent development and talent attraction programmes	High	Low
Informal economies	High	High

3.1.2 Possible scenarios of the future

The interplay of the drivers' pull and pull with each other

The startup and SME landscape in G20 and beyond is being explored through a range of diverse scenarios, each shaped by different combinations of critical drivers. These plausible futures span a wide spectrum–from optimistic and transformative to more challenging or status-quo trajectories. They illustrate paths from fragmentation to alignment, scarcity to innovation–each calling for forward-looking leadership, strategic partnerships and inclusive, flexible approaches.

Within each scenario set presented in the following pages, the scenario shown in red represents a path of decline, while the scenarios in green reflects a more transformative direction.

Different countries may find themselves aligned with different scenario trajectories and are encouraged to reflect on their own position and consider how they might shift towards more desirable futures.

Scenario Set 1: Liquidity vs. Human capital

1. Burning money
2. Digital revolutionaries
3. Crumbling backbone
4. Gathering wave

Scenario Set 2: Policy alignment vs. Operational capacity

1. In the waiting place
2. One world, one framework
3. No enablers
4. The Bypass economy

Scenario Set 3: Formal capacity vs. Informal integration

1. Stay invisible
2. Everyone's a winner
3. Into the abyss
4. Experiential learning

Scenario Set 4: Strategic support vs. Systemic absorption

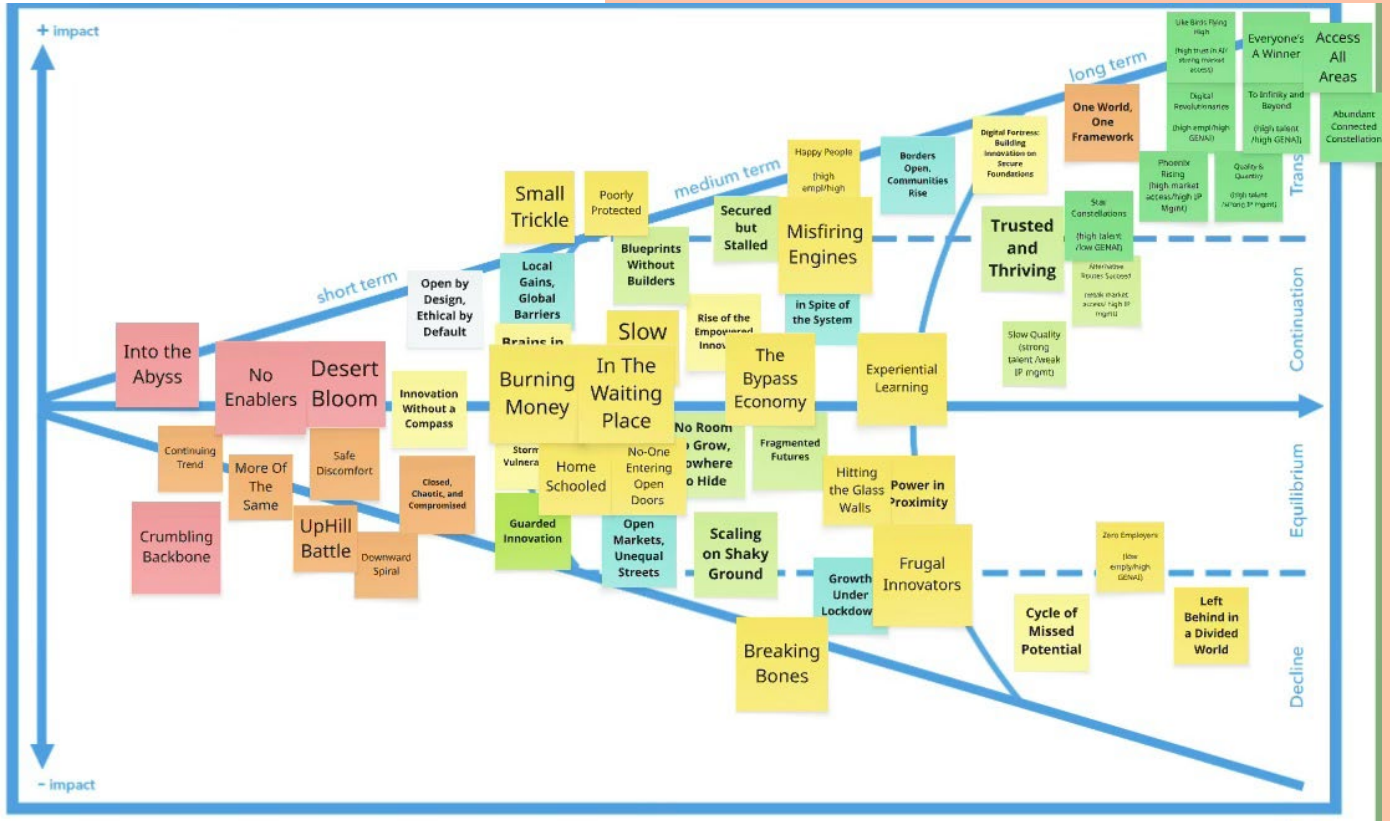
1. Misfiring engines
2. Abundant connected constellation
3. Desert bloom
4. Frugal innovators

3.1.3 Exploring a range of scenarios

Potential directions for the future of startups and SMEs

These scenarios illustrate a spectrum of potential pathways shaped by varying degrees of impact and uncertainty linked to the drivers most relevant to the future of the startup and SME landscape. The timeline for realising these scenarios may range from short to long term, depending on how quickly uncertainties unfold and system-level responses take shape.

Through collaborative analysis, stakeholder engagement, and expert review, a set of transformational scenarios was shortlisted and analysed. In addition, a wildcard scenario was also explored to explore potential high-impact disruptions to current trajectories.



Source of tool: Futures Cone from ITU Strategic Foresight Futures

3.1.4 A possible progressive future

The narrative for ‘Digital revolutionaries’

Widespread AI adoption and digital fluency empower startups, SMEs and informal enterprises to disrupt traditional systems, creating new roles and business models. This transformation unfolds amid fluid regulation, decentralised grassroots innovation a reimagined human–AI collaboration landscape.

Governments collaborate to address the practical and ethical challenges of shaping fluid, responsive and adaptive regulation, particularly around Gen-AI, that balances economic growth and innovation with oversight.

Entrepreneur Support Networks pivot to provide agile, tech-savvy guidance that continuously evolves to keep pace with localised innovation hubs, hyped around achieving the metrics of solopreneur unicorns.

Funders and investors, especially the growing number of women inheriting wealth, are funding businesses with these unconventional risk profiles, using AI and Big Data tools to re-profile risk factors.

For academia, there is a strong shift towards interdisciplinary research – and research commercialisation - on the interplay between entrepreneurial skills, human–AI collaboration and digital ethics.

Private sector and civil society actors are better able to create collaborations and partnerships with startups and SMEs to create holistic solutions and supply chains, to compete against large businesses through collective solutions.

Strengths: **New business models emerge, inclusive of informal economy.**

Watch out for: **Unforeseen Human-GenAI collaboration consequences.**

Digital revolutionaries

Driver Combination: Access to funding, finance, capital and cash flow, fintech + Talent development and talent attraction programmes

Widespread AI adoption and digital fluency empower startups and informal enterprises to disrupt traditional systems, creating new roles and business models. This transformation unfolds amid fluid regulation, decentralised grassroots innovation, and a reimagined human–AI collaboration landscape.

3.1.4 A possible progressive future

The narrative for ‘One world, one framework’

Global consensus on digital trade rules, data governance and innovation policies enable enterprises to operate seamlessly across borders. With interoperable technical and data platforms, harmonised compliance and shared standards, they are able to scale faster and create cash-flow more effectively.

This compliance clarity and consensus enables Entrepreneur Support Networks to offer globally consistent guidance, services and resources that connect enterprises to cross-sector and international opportunities.

Government departments collaborate at national level for transversal policy making that truly supports startups and SMEs, creating clear national strategies that enable international collaborations for digital economies. Public-Private sector collaboration also increases, with coherent and well-structured multi-stakeholder supply chains, driving change towards achieving the UN SDGs.

Digitised tech transfer enables academia to fast-track innovation to commercialization, generating new income streams.

Funders and investors invest more, as reduced compliance friction and clearer rules makes securing a return-on-investment less risky.

Strengths: **Compliance Clarity.**

Watch out for: **Coordination Load.**

One world, one framework

Driver Combination: Harmonization of cross-border regulations + Digital trade infrastructure

Global consensus on digital trade rules, data governance, and innovation policies enables enterprises to operate seamlessly across borders. With interoperable platforms, harmonised compliance, and shared standards, enterprises scale faster, talent circulates more freely, and public–private collaboration drives growth.

3.1.4 A possible progressive future

The narrative for ‘Everyone’s a winner’

Inclusive digital technical and data infrastructure, abundant capital and digital-first education fuels a boom in entrepreneurship across formal and informal sectors. Enterprises have the ‘fuel’ and the skills to start and scale, overcoming historic barriers while remaining aligned with sustainability targets. Social trust and collective purpose drive economies forward.

Entrepreneur Support Networks capitalize on digital transformation to reach all types of enterprise founders – including informal - and provide a wide and inclusive range of resources that build their competencies for creating viable businesses aligned with sustainability-driven practices.

Government investment and inclusive, transversal policies, strategies and incentives, strengthens trust in the entrepreneurship ecosystem and attracts private investment. Funders and investors highly value enterprises aligned with inclusion and sustainability, recognizing how these de-risk their investment to generate ROI/SROI.

Academia, from schools, to apprenticeships, to universities, embed digital green entrepreneurial education across subjects to embed problem-solving mindset and behaviours.

Private sector and civil society organizations feel the benefit of using purpose-driven innovation from start-ups in fin-tech and sustainability-tech. Increasingly, they seek localised supply chain partnerships with formal and informal enterprises to tackle energy, water and waste management challenges.

Strengths: **Rapid sustainability aligned innovation.**

Watch out for: **Disparities in opportunities continuing across regions or countries.**

Everyone’s a winner

Driver Combination: Talent development and talent attraction programmes + Informal economies

Inclusive infrastructure, abundant capital, and digital-first education fuel a boom in entrepreneurship across formal and informal sectors. Enterprises have the ‘fuel’ and the skills to start and scale, overcoming historic barriers while remaining aligned with sustainability. Social trust and collective purpose drive growth.

3.1.4 A possible progressive future

The narrative for ‘Abundant connected constellation’

Startups and SMEs thrive in a system that is deeply aligned to support them through collaboration across the different stakeholder groups – government and public sector, investors, entrepreneur support networks, academia, private sector and civil society.

Universal digital technical and data infrastructure, cross-border digital trade and agile governance enables seamless scaling. With fluid talent flows, targeted incentives and inclusive innovation, entrepreneurship is a catalyst for sustained, inclusive economic thriving.

Strategic support from Government through targeted investment and incentives, plus transversal policies and strategies, activates the entrepreneurship ecosystem and facilitates systemic innovation absorption, so that startup and SME solutions get mainstreamed into communities at all levels.

Entrepreneur Support Networks operate within an integrated national and local ecosystem, coordinating enterprises – formal and informal - with public and private actors to guide founders through a landscape that is constantly evolving with new opportunities to create, including cross-sector and cross-border partnerships.

The constant digital transformation facilitates the emergence of new business models and new types of partnerships with private sector and civil society, leveraging technology to cohere into supply chains delivering complex solutions.

Universities align closely with industry and government to catalyse research-led innovation and commercialise it rapidly.

Combined with greater confidence in the viability of enterprises to thrive, investment grows due to foundational support and capacity-building, as well as cash-flow efficiencies.

Strengths: **Opportunities for seamless scaling.**

Watch out for: **Overdependence on Government support.**

Abundant connected constellation

Driver Combination: Targeted policies, investment and incentives for SMEs and startups + Access to funding, finance, capital and cash flow, fintech + Digital trade infrastructure + Talent development and talent attraction programmes

Enterprises thrive in a deeply aligned system with strategic public support and systemic absorption. Universal infrastructure, cross-border digital trade, and agile governance enable seamless scaling. With fluid talent flows, targeted incentives, and inclusive innovation, entrepreneurship becomes a sustained engine of growth.

3.1.5 A wildcard caution

Solopreneurs and tariffs

Besides the driver-based scenario mapping, several negative wild cards – low-probability events capable of overturning assumptions – were also identified. One of them is presented here.

In this disruptive future scenario, the rapid rise of AI tools and digital agents fuel a surge in one person, AI-powered enterprises that scale without teams, offices, or traditional infrastructure. Hyper-efficient solopreneurship becomes the dominant model among startups and SMEs, especially in tech-driven sectors. While this reduces costs and speeds up market entry, it also erodes employment creation, limits peer-to-peer collaboration and weakens the social fabric of entrepreneurship. The role of startups as inclusive engines of job creation and community development fades significantly.

As digital trade concentrates in a few high-performing economies, other governments impose steep tariffs on data, software digital services to protect domestic interests. This digital protectionism fragments global markets, complicates licensing models and disrupts interoperability across platforms and value chains. Cross-border and cross-sector innovation stalls, with supply chains turning inward due to limited access to external expertise, technologies capital. Government and public sector institutions lag behind. Regulatory bodies struggle to keep pace with AI-run entities and platform-based solopreneurs. Fragmented governance and diverging legal regimes increase compliance burdens, especially for startups in developing economies. Public trust in digital enterprises declines amid concerns about data misuse, regulatory evasion and rising inequality.

Entrepreneurs become isolated, as algorithmic efficiency replaces community support networks and innovation hubs lose relevance - and funding - as traditional entrepreneurship pathways are eroded. Academia capacity-builds digital green entrepreneurial skills in schools, apprenticeships and universities but is not able to address the silo effect of digital solopreneurship. Youth and marginalised groups, including informal economy enterprises without advanced tech literacy or capital are excluded from the hyper-automated economy.

Innovation becomes siloed and uneven. Solopreneurs focus on closed-loop systems, deprioritising open collaboration. Investment dries up in regions where regulatory uncertainty and trade barriers deter global funding. Lacking incentives for sustainability, many solopreneur-led ventures prioritise speed and scale over environmental responsibility. Weak governance standards worsen the exploitation of data and labour in unregulated digital spaces.

AI-powered solopreneurship dominates, lowering costs and speeding entry but eroding jobs, collaboration, and trust. Digital protectionism fragments markets, governance lags, and investment wanes, leaving innovation siloed, exclusionary, and uneven.

3.2 The desired scenario

This section presents a shortlist of scenarios stress-tested against the objectives of the foresight study to assess their potential impacts and alignment with goals.

From this set of possible futures, a desired scenario is picked and analysed, providing a shared vision to guide planning and decision-making.

3.2.1 Prioritising the desired scenario

Stress-testing strategic objectives across scenarios

To assess alignment with the foresight study's core objectives, the five scenarios were mapped against the intended outcomes of the research, and stress tested.

In the table on this page, a smiling-face emoji indicates a positive impact of the scenario on the objective, straight-face emoji indicates a neutral impact, and sad-face emoji indicates a negative impact.

As the comparison reveals, while each scenario offers unique strengths or weaknesses, one of them clearly emerges as the most desirable future, showing strong alignment across all four objectives.

Objectives / Scenario Titles	Objective 1: Inclusive engines	Objective 2: Market opportunities	Objective 3: Open technology collaboration	Objective 4: Access to global resources
Digital Revolutionaries				
One World, One Framework				
Everyone's a Winner				
Abundant Connected Constellation				
Solopreneurs and Tariffs				

Source of tool: ITU Strategic Foresight Windtunneling Canvas

3.2.2 Identifying the desired scenario

Zooming into the future of 'Abundant connected constellation'

In the scenario from the future, startups and SMEs flourish within a seamlessly integrated global system enabled by universal digital infrastructure, inclusive governance and institutional agility. Digital Economy Agreements (DEAs) harmonise cross-border compliance, supported by secure, interoperable platforms and regional cross-sectoral regulatory sandboxes. Enterprises operate confidently across sectors and borders, guided by ethical AI and AGI governance frameworks.

Fintech, sustainability and AI-ethics are built into business models from the outset, ensuring robust management of water, energy and natural resources are standard fare – enabling startups and SMEs to facilitate the meeting of National Determined Contributions (NDCs) to minimize impact on planetary boundaries. Plug-and-play solutions across compliance, operations and sustainability help enterprises reduce costs, meet evolving expectations and stay competitive. Real-time tools enable responsible resource management.

A future-ready workforce drives this transformation. Educators are trained in digital green entrepreneurial competencies and creating integrated curricula in developing countries – driven by long-standing experience in responding to global challenges – to respond to global challenges. Through experiential learning, educators are training youth in school, apprenticeships and university in digital green entrepreneurial competencies, ensuring that they are the multi-disciplinary digital green talent focused on generating social and environmental solutions and leading change. These learning pathways which also engage families and friends, systemically enable whole communities to 'be entrepreneurial', increasing the pipeline of businesses and thus employment, while also reducing the chances of business failure.

Regional, easy-to-access innovation hubs deliver holistic and future-ready capacity building across digital, financial, business, technological and regulatory competency areas—ensuring enterprises are equipped to grow sustainably and adaptively. Holistic one-stop shops provide mentoring, cross-border navigation and investment access for startups and informal enterprises alike. Employment evolves as AI becomes seamlessly integrated into enterprise operations, enabling new roles and workflows. Human talent is empowered to leverage AI for greater efficiency, creativity strategic decision-making—reshaping how value is created and delivered.

Academia supports research-led innovation, with AI-powered tech transfer scaling-up monetisation of IP through compressed time-to-market and commercialisation. Automated IP, RegTech compliance and real-time fintech systems enable frictionless trade. Digital marketplaces and B2B platforms prioritise inclusion, trust sustainability.

Government develops policies transversally, ensuring alignment across departments to catalyse innovation and support the entrepreneurship eco-system. Policy becomes adaptive, shaped through multi-stakeholder dialogues, so it is responsive to the evolution of new technologies as well as social and environmental needs: this ensures regulations reflect the needs and insights of everyone in the ecosystem.

As more women inherit wealth, the investment landscape shifts with the presence of more women leading VCs and acting as philanthropists investing in women and youth-led digital green enterprises. Funders and investors routinely use AI to calculate risk assessments against sustainability frameworks and overviews from markets, paying particular attention to water and energy management in enterprise supply chains.

Cross-sector investments, inclusive policy design and decentralised innovation systems ensure resilient, scalable ecosystems that keep pace with change and deliver long-term value.

3.2.3 Enablers for the desired scenario

Factors that make ‘Abundant connected constellation’ a desired scenario

These following enabling factors provide a direct pathway to positioning startups and SMEs as inclusive engines of growth, expanding market opportunities, advancing open technology collaboration ensuring equitable access to global resources—ultimately creating an environment grounded in solidarity, equality and sustainability.

Empowered, future-ready workforce

Systematic, lifelong capacity building across digital, financial, entrepreneurial, sustainability, regulatory and cybersecurity literacies equips talent from early-on to find employment or create enterprises that address pressing global challenges. This reduces youth unemployment, expands opportunities for individuals and nurtures a culture of lifelong learning. This matters for SMEs as it helps them avoid expensive upfront training costs while ensuring access to a talent pipeline that can both multi-task and innovate.

Inclusive and resilient innovation ecosystems

Distributed regional and local innovation hubs provide tailored support to businesses of all sizes and stages—including informal enterprises—ensuring no one is left behind. These hubs offer mentoring, funding access, skills development and cross-border scaling pathways, positioning SMEs and Startups as the resilient backbone of diversified economies.

Seamless global trade and rapid commercialisation

AI-powered tech transfer, interoperable digital trade infrastructure and fintech solutions enable even micro-enterprises to enter and thrive in global markets. Frictionless cross-border trade, real-time payments and automated compliance reduce costs and accelerate market readiness—allowing startups and SMEs to exist alongside, and compete with, larger firms. This matters for SMEs because it enables them to reach new customers and create new markets.

Embedded sustainability and ethical growth

Green technologies and ethical business practices are integrated into enterprises from inception. Sustainability is not an add-on but a competitive advantage that reduces operating costs, builds consumer trust and attracts green investment—positioning startups and SMEs as natural leaders in climate action and social impact. This matters for SMEs as it strengthens their long-term desirability, feasibility, and viability as resilient businesses.

Adaptive governance and institutional agility

Harmonised legal frameworks, cross-border regulatory sandboxes and responsive policymaking enable institutions to stay ahead of emerging technologies. These adaptive systems foster policy coherence, encourage innovation and uphold public interest—ensuring that regulation evolves in step with enterprise needs and societal shifts. This matters for SMEs because safe spaces to test solutions make it easier to innovate and scale, while modernised regulations help them compete more effectively.

Secure and interoperable digital infrastructure

Strong cybersecurity mechanisms, digital identity safeguards interoperable data systems form the backbone of a trusted digital economy. They enable startups and SMEs to operate securely across borders, protect customer data and scale confidently—ensuring resilience, accountability inclusivity in an increasingly interconnected world. This matters for SMEs as interoperability efficiencies lower operational costs and energy impact, while reducing risk and ensuring greater business continuity.

4. Actioning the desired future

4.1 Shaping the future

This section marks the transition from foresight to strategy by translating the desired future into reality through an actionable agenda. It outlines key interventions and strategic priorities needed to close the gap between present conditions and the desired future.

A preliminary roadmap is developed to guide implementation, grounded in a shared understanding of stakeholder roles, sequencing of actions, and areas for coordination. This phase sets the direction for proactive and inclusive systems change.

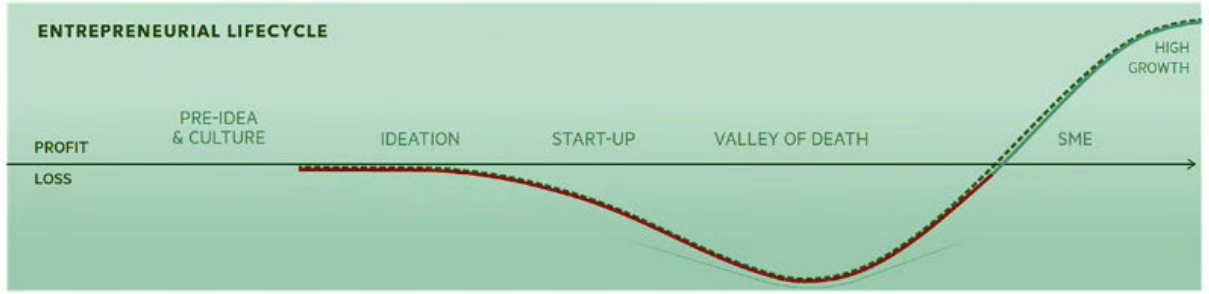
4.1.1 Supporting entrepreneurial lifecycle

From foresight to action with clear jobs to be done

In any entrepreneurial ecosystem, every stakeholder has a distinct role to play. It is the interconnectedness of these roles that enables innovation to flourish and economic potential to be unlocked.

The image on this page depicts the respective roles of stakeholder groups across the different stages of the entrepreneurial lifecycle.

The recommended actions in this section of the report are grounded in foresight insights and reflect the collective ambition to realise the desired vision of 'Abundant Connected Constellations', in alignment with the core objectives of this study. Accordingly, the recommendations presented in this report – shaped by ecosystem consultations, expert inputs engagement with G20 members – address critical systemic gaps along the entrepreneurial journey.



ENTREPRENEURIAL PHASE

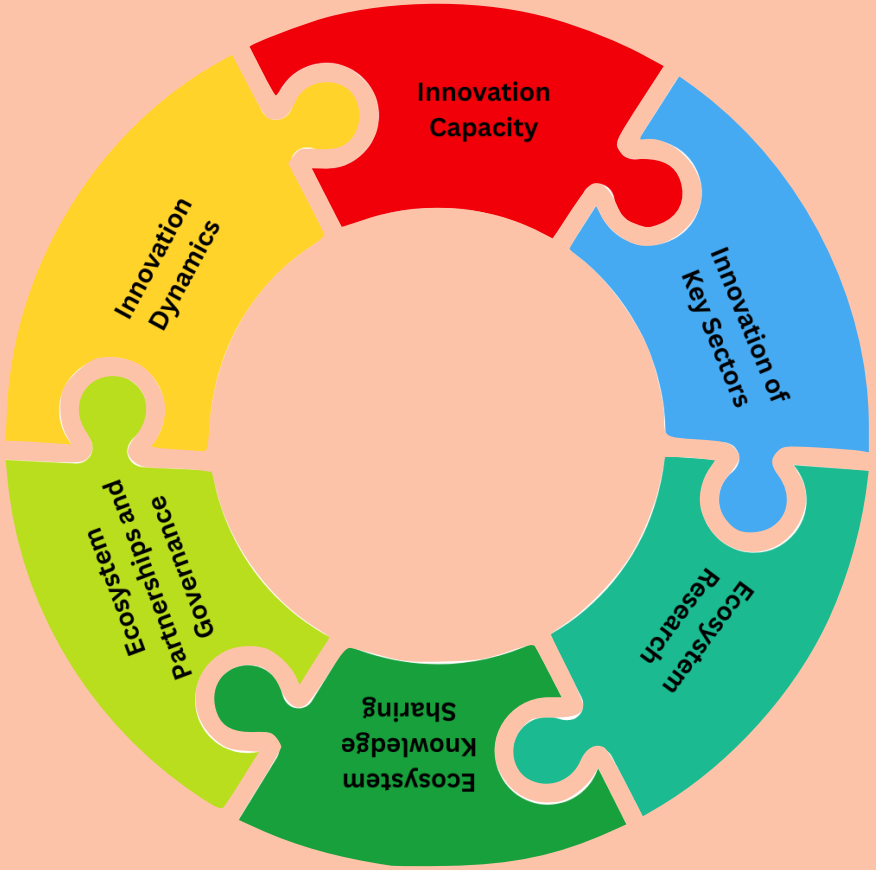
STAKEHOLDERS	PRE-IDEA & CULTURE	IDEATION	START-UP	VALLEY OF DEATH	SME
ENTREPRENEURS	ENTREPRENEURIAL INTEREST	ENGAGE WITH PROBLEMS	DEVELOP BUSINESS MODELS	BUILD COLLABORATION	EXPAND
FINANCE	RESEARCH FUNDING	SEED FUNDING	ANGEL INVESTMENT	VENTURE CAPITAL	BUSINESS FINANCE & LOANS
ENTREPRENEURIAL SUPPORT	ENTREPRENEURIAL EVENTS	HACKATHONS & COMPETITIONS	CO WORKING & SUPPORT	INCUBATORS & ACCELERATORS	BUSINESS ASSOCIATION
CORPPORATE	SUCCESS STORIES	RESEARCH PROGRAMS	LAB PROGRAMS	B2B & SUPPORT SERVICES	SKILL TRAINING PROGRAMS
ACADEMIA	ENTREPRENEUR COMMUNITY	BASIC RESEARCH	SPIN OFFS	SOFT SKILL TRAININGS	HUMAN CAPITAL
GOVERNMENT	VISION & STRATEGY	IP & R&D SUPPORT	TAX SUPPORT	PUBLIC PROCUREMENT	TRADE POLICY

Source of tool: ITU Ecosystem Maturity Map

4.1.1 A roadmap to maturity

Building blocks of innovation-led growth

Looking ahead, the recommendations are structured under six foundational pillars that together provide a coherent roadmap for advancing connected, inclusive sustainable economic growth powered by innovation. The first three pillars of Innovation Dynamics, Innovation Capacity, and Innovation of Key Sectors are foundational to building the ecosystem. Meanwhile, the following three pillars of Ecosystem Research, Ecosystem Knowledge Sharing and Ecosystem Partnerships and Governance are critical to lead the ecosystem towards maturity.



Source of tool: ITU Strategic Priority Matrix

4.1.2 Actions to drive a future-ready startup and SME ecosystem

Innovation dynamics (ID)

Policies and strategies that support the creation, growth, and competitiveness of startups and SMEs

- ID1: Promote inclusive fintech policies that enable seamless global payments, increase financial transparency, and improve access to capital for startups and SMEs.
- ID2: Harmonize legal and regulatory frameworks, align international standards, and expand RegTech adoption to reduce compliance burdens and empower small enterprises to compete globally.
- ID3: Establish cross-border and cross-sector regulatory sandboxes to enable SMEs and startups to pilot emerging technologies in multiple jurisdictions.
- ID4: Develop Digital Economy Agreements (DEAs) to align national digital strategies that support startups and SMEs in cross-border digital trade.
- ID5: Establish ethical AI and AGI governance frameworks to guide responsible innovation and ensure trust and accountability in enterprise usage.

Innovation capacity (IC)

Initiatives that strengthen the ability of enterprises to access, absorb, and apply resources for innovation

- IC1: Invest in regional and local innovation hubs to offer holistic capacity-building—including mentorship, scale-readiness services, and targeted support—to equip startups and SMEs with the technical and soft skills needed to grow.
- IC2: Strengthen VC ecosystem collaboration across G20 to enable syndication of opportunities, resources, and talent—advancing resilient and inclusive innovation.
- IC3: Invest in plug-and-play sustainability tech to enable SMEs and startups to operate low-impact, high-efficiency business models.
- IC4: Support sector-focused programmes within innovation hubs to strengthen innovation pipelines in climate, health, agriculture, tourism, among others, to support niche clusters, deepen expertise, and improve access to targeted markets.
- IC5: Co-develop innovation curricula with academia, industry and innovation hubs to build business, tech, governance, and impact fluency among talent for effective capital use.

Innovation of key sectors (IKS)

Actions that drive innovation across sectors by enhancing the competitiveness of enterprises

- IKS1: Invest in digital trade infrastructure to enable micro-enterprises and startups to access and participate in global markets.
- IKS2: Develop inclusive B2B digital platforms to integrate formal and informal enterprises into cross-sector and cross-border trade networks, fostering greater economic participation and visibility within the global value chain.
- IKS3: Support the strategic adoption of emerging technologies by integrating foresight into national planning processes, enabling more focused investments, resource alignment, and innovation uptake in key sectors—boosting productivity and long-term competitiveness.
- IKS4: Develop cross-sector and cross-border digital innovation clusters that function as living labs—unlocking access to new markets, partnerships, and resources for startups and SMEs across regions.

4.1.2 Actions to drive a future-ready startup and SME ecosystem

Ecosystem research (ER)

Initiatives that generate data and insights to guide policy, talent development, and enterprise growth

- ER1: Conduct targeted research to assess the impact of technology on sectoral value chains, identify critical ecosystem gaps, and determine priority sectors for innovation—enabling evidence-based policy, coordinated action, and enterprise formation to address emerging needs.
- ER2: Identify lifelong learning and capacity building needs across the innovation ecosystem to inform future investment in talent development, ensuring a workforce equipped for continuous adaptation and inclusive growth.
- ER3: Develop secure, interoperable platforms for open data sharing to empower startups and SMEs with accessible, actionable insights—while ensuring data protection and responsible use.
- ER4: Strengthen impact measurement frameworks tailored to startups and SMEs to track inclusive growth, sustainability outcomes, and cross-border innovation flows.

Ecosystem knowledge sharing (EKS)

Platforms and initiatives that enable the exchange of insights, data and learning to strengthen strategic alignment

- EKS1: Promote dynamic networks that share insights, success stories practical know-how from across innovation ecosystems—amplifying the visibility of champions and fostering mutual learning across countries and sectors.
- EKS2: Curate and share lessons from national policies, cross border digital agreements and innovation partnerships to inform inclusive, collaborative ecosystem-building efforts.
- EKS3: Establish mechanisms for collaboration across key sectors and domains, creating structured spaces where stakeholders jointly explore challenges and co-design solutions.
- EKS4: Facilitate peer learning on regulatory sandboxes, data interoperability and agile policymaking to ensure legal and governance frameworks align with market shifts.
- EKS5: Promote understanding of common baseline standards in digital trade, taxation and intellectual property protection to reduce friction, enhance trust and support seamless cross border growth for Startups and SMEs

Ecosystem partnership and governance (EPG)

Mechanisms that align capital, networks, and governance to scale startups and SMEs

- EPG1: Establish cross-border governance and partnership models to jointly address systemic gaps and co-design scalable solutions tailored for replication across diverse markets.
- EPG2: Facilitate structured engagement between public and private investors to co-design incentive mechanisms, de-risk investments and expand capital flows into startup and SME ecosystems.
- EPG3: Promote regional and global associations focused on critical sectors, improving access to knowledge, networks and new markets for startups and SMEs.
- EPG4: Strengthen business opportunity partnerships that enable startups and SMEs to expand into regional and global markets and foster collaboration with larger enterprises for shared growth.
- EPG5: Leverage B2B marketplaces to expand cross-sector and cross-border partnerships, boost SME reach and foster inclusive innovation.

4.2 Managing the ecosystem

This section outlines structured mechanisms to provide guidance, support implementation, activate inclusive platforms, and enable strategic partnerships and communication pathways, ensuring that the roadmap remains responsive, relevant, and ecosystem-driven over time.

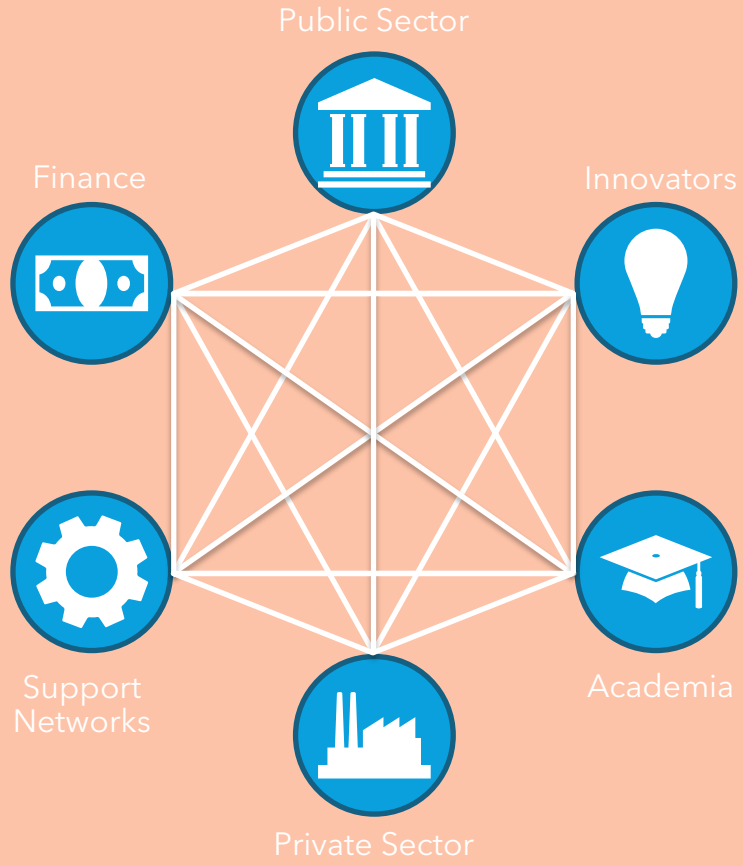
4.2.1 Strength in stakeholder collaboration

Mechanisms to align strengths and build a resilient ecosystem

Translating bold recommendations into lasting results requires more than vision; it calls for a system in which diverse stakeholders not only participate, but actively co-create, implement, and champion transformation.

Driving such an ambitious agenda requires more than transactional engagement. It demands deliberate platforms and processes that bring these groups together, foster meaningful collaboration, ensure diverse perspectives shape decision-making, and embed trust at every level. In supporting startups and SMEs, this integrative approach enables the ecosystem to adapt to emerging technologies, respond to shifting societal needs, and align with evolving global trends.

This foundation is essential to advance the collective journey towards a digitally transformed, inclusive, and future-ready landscape for starts ups and SMEs.



4.2.2 Activating implementation mechanisms

CHAMPIONS FOR SHARED OWNERSHIP

To activate and sustain momentum on the enterprise roadmap, it is essential to mobilise champions who can anchor ownership and coordination across the ecosystem. These champions must come from across stakeholder groups—including governments, the networks of the G20, business networks, financial institutions, academia, incubators and enterprise communities. This involves identifying high-interest, high-influence stakeholders—such as ministries of digital economy and trade, national SME agencies, regional innovation hubs, chambers of commerce, development banks, leading universities, startup associations and prominent enterprises with demonstrated scale and impact. Engagement strategies could include bilateral consultations, founder roundtables and public–private co-design workshops to surface their interests, shape alignment build shared responsibility.

GOVERNANCE FOR TRUST AND ACCOUNTABILITY

In the dynamic and decentralised world of startups and SMEs, trust hinges on clear roles, shared standards and transparent coordination. A dedicated multi-stakeholder coordination body should be established, comprising representatives from public and private sectors, startup and SME associations, financial institutions, research and academic bodies, local innovation hubs and civil society. It should also ensure the inclusion of diverse social groups to embed equity into governance structures. The formation of this governing body should be guided by structured consultations and co-creation processes that build legitimacy, ensure local ownership and secure long-term commitment and trust building across stakeholder groups.

PARTNERSHIPS FOR CATALYTIC ENGAGEMENTS

Catalytic partnerships are essential to mobilise capital, fast-track development of digital trade infrastructure, accelerate knowledge transfer and build the innovation capacity of startups and SMEs across borders and sectors. Governments, corporates, investors, academia, business associations, multilateral bodies, regional development banks and enterprise leaders must align around shared objectives—such as capacity building, financing, cross-border trade, digital infrastructure inclusion—to coordinate priorities and scale good practices. These partnerships should be anchored in co-investment, policy co-creation and ecosystem development initiated through thematic roundtables, sectoral working groups, or co-design workshops to activate robust, purpose-driven alliances.

A COMMUNITY FOR SHARED LEARNING

A dedicated community can bridge information gaps, spotlight diverse voices and deepen trust. This community should bring together founders, incubators, funders, policymakers and technical experts from across the global entrepreneurial ecosystem. Members can contribute by exchanging learnings, sharing data, codifying practical lessons, mentoring peers or collaborating on joint challenges. Co-design workshops or ecosystem events should be held to identify community needs to build a community that practices a culture of mutual learning, responsibility and support. This community should build entrepreneurial education competencies among educators, foster cultural acceptance of entrepreneurship, and strengthen links between researchers and ecosystem builders to commercialise research and sustain the R&D pipeline.

COMMUNICATING AND ADVOCATING FOR IMPACT

Strategic communication is vital to advance the case for startups and SMEs as drivers of inclusive economic growth. Embedding communication strategies within G20 engagement groups and advocacy helps shift narratives, unlock political will and build wider public and investor confidence. Ecosystem actors should jointly shape a compelling communication strategy—highlighting enterprise success stories, policy wins, inclusive innovation and transformative sectoral breakthroughs—through co-design engagements. This narrative should be anchored in real data and focused on impact: jobs created, innovations scaled, ecosystems strengthened. Tactics could include Startup20 summits, SME roadshows, media campaigns and thought leadership in G20 and multilateral spaces. Consistent, well-evidenced storytelling ensures that innovation remains on the agenda—and the ecosystem keeps moving forward.

5. Annexes

5.1 Global best practices to inspire the journey

Data Interoperability Framework (Australia):

Australia's Government Technology Interoperability Framework (AGTIF) promotes seamless data sharing across government and industry through standardised APIs, metadata, and security protocols. Developed to enhance public service delivery and digital trade readiness, the framework enables interoperability between systems, reduces duplication, and improves trust in data governance. It supports cross-sector collaboration and simplifies integration for startups and SMEs engaging with digital public services. By embedding data interoperability into national policy, the initiative helps lower technical barriers, facilitate innovation, and improve the scalability of digital enterprises in domestic and cross-border markets.

Marco Legal das Startups (Brazil):

Enacted in 2021, Brazil's Legal Framework for Startups provides a comprehensive policy structure to reduce regulatory burdens and promote innovation-led enterprise development. It includes simplified procedures, tax incentives, and provisions for public-sector innovation contracts. It supports broader integration of digital technologies into sectoral planning and encourages safe experimentation through regulatory sandboxes. It also promotes legal certainty for investors and fosters greater agility in government–startup collaboration. By lowering entry barriers, the initiative aims to boost investment, drive public-private collaboration, and enable startups and SMEs to participate more effectively in Brazil's innovation economy.

Women Entrepreneurship Strategy (Canada)

Launched in 2018, Canada's WES is a whole-of-government initiative to eliminate systemic barriers and grow women-led businesses. Built around three pillars—access to capital, ecosystem strengthening, and knowledge—WES offers financial support, mentoring, and inclusive investment tools. Key initiatives include the Loan Fund, Inclusive Venture Capital Initiative, WES Ecosystem Fund, and Knowledge Hub. These have reached over 162,000 women entrepreneurs, disbursed 2,300+ loans, supported 4,600+ women in venture capital, and convened nearly 200,000 participants. WES shows how integrated policy frameworks can drive inclusive participation and gender-responsive entrepreneurship at scale.

de:hub Initiative (Germany):

Launched by Germany's Federal Ministry for Economic Affairs and Climate Action, the Digital Hub Initiative (de:hub) connects SMEs, startups, academia, and corporates across 12 specialised hubs. Each focuses on a sectoral strength—such as mobility, health, or smart infrastructure—offering tailored environments for digital transformation. The hubs act as regional anchors for experimentation, business model development, and internationalisation. By enabling collaboration, access to research, and applied innovation, de:hub empowers SMEs to scale technologies in real-world settings. It strengthens regional ecosystems, supports national digitization goals, and bridges traditional industries with tech-driven solutions.

TechSprint (G20/BIS):

Launched under Saudi Arabia's G20 Presidency in 2020, TechSprint is a global initiative led by the BIS Innovation Hub to crowdsource RegTech solutions for financial innovation and governance. Each edition addresses a priority challenge—such as sustainable finance, green digitalisation, or SME inclusion—by convening regulators, fintech startups, and solution developers. The initiative offers a structured innovation sprint, with technical mentoring and sandbox-style testing. By fostering international collaboration and supporting agile experimentation, TechSprint promotes inclusive and forward-looking financial ecosystems that reduce compliance burdens, improve transparency, and expand access to capital for startups and SMEs globally.

5.1 Global best practices to inspire the journey

SIDBI Fund of Funds for Startups (India):

India's Fund of Funds for Startups (FFS), managed by the Small Industries Development Bank of India (SIDBI), was established to de-risk early-stage investments and expand domestic capital availability. It co-invests public funds alongside registered venture capital firms, encouraging private participation in India's growing startup ecosystem. The fund supports a broad range of sectors, with special attention to underserved regions and founder segments. By pooling resources and reducing investor risk, the initiative improves access to finance for early-stage enterprises and enables a more diverse and resilient entrepreneurial landscape.

Hokkaido F Village X (Japan):

Operated by Scrum Studio and Fighters Sports & Entertainment, Hokkaido F Village X (HFX) is a global accelerator embedded in a smart city development around ES CON FIELD HOKKAIDO. It supports startups across growth stages—seed to IPO-ready—by enabling pilot testing in five domains: sports, food, mobility, sustainability, and well-being. Startups access real-world testbeds, local partners, mentorship, and funding via Scrum Ventures. The programme fosters regional corporate and government collaboration, culminating in a Demo Day for visibility and outreach. HFX shows how place-based innovation hubs and public–private coordination can drive inclusive innovation and resilient local economies.

DigiTech SMME Programme (South Africa):

Launched in 2022 by South Africa's Department of Communications and Digital Technologies, DigiTech supports ICT-focused SMMEs with a digital distribution platform, capacity building, mentorship, and market access. Global tech partners—including Microsoft, Huawei, and Google—provide tools, expertise, and investment pathways. The programme also enhances visibility for underrepresented entrepreneurs, especially women and youth, through events like AfricaTech. By strengthening public–private partnerships and promoting the digitalisation of marginalised businesses, it supports inclusive entrepreneurship and economic participation. It also contributes to national digital transformation by integrating local innovators into broader digital ecosystems and enabling scalable, locally developed digital solutions.

Digital Public Services for SMEs (UNESCAP & Russian Federation):

As part of the APIS Action Plan 2022–2026, this joint initiative by UNESCAP and the Russian Federation strengthens access to digital public services (DPS) for SMEs in nine North and Central Asian countries. It aims to make DPS more inclusive, especially for women entrepreneurs, by harmonising legal frameworks and improving regulatory conditions. The initiative combines legal gap assessments, SME-focused surveys, and foresight tools to align governance with emerging technologies such as AI and data analytics. It also fosters subregional cooperation and knowledge sharing, contributing to sustainable SME development and more responsive, digitally enabled governance systems.

5.2 Other signs of change emerging from the developing world

Brazil

The Brazilian Development Bank (BNDES) provides co-lending and guarantees for venture debt and seed capital, mitigating credit risk for private investors. This initiative aims to lower borrowing costs and broaden credit access for high-risk startups.

India

India has invested in digital platforms such as *e-Shram* to register informal workers, facilitate financial inclusion, and support formalisation.

South Africa

The *Science, Technology and Innovation Decadal Plan 2022–2032*, led by the Department of Science, Technology and Innovation, supports the establishment of innovation hubs, publicly funded IP commercialisation, and trade synergies.

The Small Enterprise Finance Agency (SEFA) partners with commercial banks and impact investors to provide blended finance—combining grants and loans to reduce risk.

As part of its G20 Presidency in 2025, South Africa has also highlighted the need to explore ways to engage, support, and integrate the informal economy.

Uganda

Uganda's *Glovo E-Commerce Day*, initiated in 2024, promotes digital upskilling at scale. The 2024 edition engaged over 1,000 SMEs, local and international brands, industry experts, and Glovo partners.

United Arab Emirates

The UAE's *TradeTech Initiative* invites startups to pilot AI, blockchain, and IoT solutions that compress customs clearance from days to minutes.

The *Personal Data Protection Law (PDPL)* allows cross-border data flows under specified conditions.

The UAE's Comprehensive Economic Partnership Agreements (CEPAs) remove up to 80% of tariffs for enterprises.

5.3 Glossary of terms

TERMS	DEFINITIONS
Critical issues gap	Critical Issues Analysis is a cross-disciplinary scan that ranks the issues most likely to shape sustainable innovation. Mixing creative workshops, expert panels, evidence reviews stakeholder dialogue, it scores each driver by its impact and uncertainty across a STEEPLE lens.
Digital Economic Agreement (DEA)	A treaty between two or more countries that sets out rules and standards to govern trade and cooperation in the digital economy. It goes beyond traditional free trade agreements by focusing specifically on digital trade, data flows and emerging technologies digital governance.
Desired scenario	The most desirable future outcome based on stakeholder values, aspirations, and strategic priorities.
Drivers	Key forces or underlying factors that influence or shape change within a system. Drivers may be internal or external and can include economic, technological, political, environmental, or social dynamics. They often interact and evolve over time, shaping future scenarios.
Electronic Know Your Customer (e-KYC)	e-KYC (Electronic Know Your Customer) is the digital process of verifying the identity of customers using online or electronic methods, instead of relying solely on physical documents and in-person checks.
Foresight	A structured approach to exploring possible futures by identifying trends, drivers, uncertainties, and opportunities to inform long-term decision-making and strategy.
Futures thinking	The mindset and practice of considering multiple plausible futures to anticipate change and guide proactive action in the present.
Innovation ecosystem	A dynamic network of institutions, stakeholders, policies, and technologies that collectively enable innovation, collaboration, and systemic transformation.
Mutual Recognition Agreement (MRA)	A Mutual Recognition Agreement (MRA) is a treaty between two or more countries to mutually recognize and accept one another's conformity assessments, standards or regulations.

TERMS	DEFINITIONS
Real Time Payments (RTP)	Instantaneous digital payment systems that allow money to be transferred and settled between banks or financial institutions within seconds, 24/7/365.
Scenario	A narrative or model that describes a plausible future state based on the interaction of drivers and uncertainties.
Signals	Early indicators or weak signs of change that may point to emerging trends, disruptions, or innovations in their early stages.
Small and Medium-sized Enterprises (SME)	A business with limited staff and revenue, contributing significantly to employment and local economic growth.
Stakeholder engagement	A participatory process of involving key actors in shaping decisions, aligning efforts, and ensuring shared ownership of outcomes.
Startup	A young business venture focused on innovation and scalable growth, frequently leveraging technology to disrupt existing markets or create new ones.
Transformation pathways	Strategic routes or sequences of actions taken to move from current conditions toward a preferred future scenario.
Trends	Patterns of change that have already gained momentum and may continue to shape the future over time.
Weak signals	Early signs of potentially important changes that are not yet widely recognised or understood. Weak signals may indicate the emergence of new trends, disruptions, or innovations and are often detected on the margins of mainstream awareness.
Wildcards	Low-probability but high-impact events or developments that could significantly disrupt current trajectories.

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