



### Foundation Taskforce - #1

**Policy Paper Draft** 





### **Recommendation 1.2**

**15** 







### **EXECUTIVE SUMMARY**

**Executive Summary: Recommendations & Policy Directives** 



### Recommendation 1.1 - Create and adopt a global definition framework for startups across G20 nations

<u>Policy Directive 1.1.1</u>: Encourage multilateral organizations, research organizations, and other relevant stakeholders to adopt a definition framework for consistency in understanding and evaluating startup ecosystems

**Policy Directive 1.1.2**: Align the existing definitions to the definition framework and ensure future alignment with the evolution of both government and private sectors

Recommendation 1.2 - Create and adopt a policy framework that strengthens the startup ecosystems within and across G20 nations

Policy Directive 1.2.1: Encourage G20 nations to formulate their respective national startup policies

**Policy Directive 1.2.2**: Adopt best practices from other G20 nations to re-calibrate existing national policies

**Policy Directive 1.2.3**: Re-evaluate and update policies that inhibit the growth of the startup ecosystems

**Policy Directive 1.2.4**: Promote policies that facilitate and encourage startup-centric global trade and investment



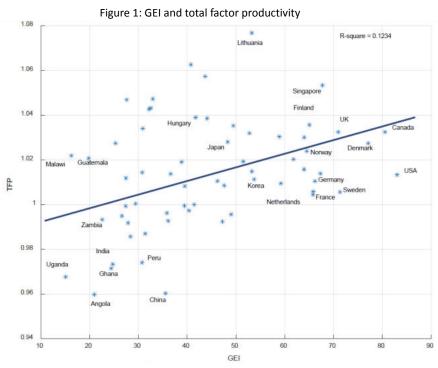


### Introduction

The rapid advancement of the digital age and globalization has led to the emergence of new methods of doing business, utilizing the interdisciplinary convergence of technology, innovation, communication networks, and global capital. The growth of entrepreneurship through these modern channels of business as well as its potential to generate employment and contribute to economic growth creates wide interest in both the study and development of these evolving systems. These new forms of pursuing companies are globally referred to as 'Startups'.

Startups play a crucial role in driving economic growth and recovery through innovation, collaborative efforts, and entrepreneurship, with the global startup economy accounting for nearly \$6.4 trillion in value creation in 2022.<sup>1</sup> Startups spur innovation by creating new technologies, developing new products and services or process innovations, and widening access to new markets. The entrance of new businesses also challenges existing firms to become more competitive, thereby increasing the productivity of firms and economies.

Figure 2 plots the GEI score and the computed total factor productivity values. The correlation between TFP and GEI is 0.35 and the sign is positive (see Table 1). From Figure 1, we verify that the quality of the entrepreneurial ecosystem (GEI scores) and TFP move in the same direction. Countries with a low-quality entrepreneurial ecosystem tend to show negative TFP values below unity. On the contrary, all developed economies with supportive entrepreneurial ecosystems improve their total factor productivity, either by productivity or innovation effects.



<sup>&</sup>lt;sup>1</sup> Global Startup Ecosystem Report, 2022





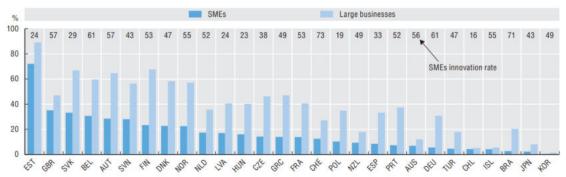
Data Source: The Global Entrepreneurship Development Institute, World Bank Figure 1: The relationship between the GEI index and GDP per capita

However, 'Startups' as a new form of business and the frequent use of its related terminology has different meanings for different stakeholders, within a domestic market, and across the globe.

Every country either defines Startups within the context of their age, maturity, incorporation date, turnover amount, etc., or lacks a definition altogether of what it means for an entity to be called a 'startup'. Given this diversity of nomenclature, there are multiple definitions of startups and their work throughout the G20 nations. This often leads to confusion and the inability to seamlessly link various data points, studies, synergize, etc. As a result, small and medium enterprises (SMEs) are less connected to international knowledge and research networks than larger firms despite their larger contribution to job creation (Figure 2).<sup>2</sup>

Businesses engaged in international collaboration for innovation, by size, 2012-14

As a percentage of product and/or process-innovating businesses in each size category



Note: International comparability may be limited due to differences in innovation survey methodologies and country-specific response patterns. European countries follow harmonised survey guidelines with the CIS.

Source: OECD, based on the 2017 OECD survey of national innovation statistics and the Eurostat, Community Innovation Survey (CIS-2014), http://oe.cd/inno-stats, June 2017. StatLink contains more data. See chapter notes.

StatLink http://dx.doi.org/10.1787/888933619106

Academics, professionals, and policymakers alike must navigate this 'definitional crises' to facilitate exchange between similar interest groups in the absence of a consistent definition.<sup>3</sup> There is a significant need for researchers to define and measure startup-related terms in more absolute, generally accepted, and quantifiable terms. Standardization and development of nomenclature on the global startup ecosystem can play a crucial role in resolving startup-related international issues and facilitate collaboration and knowledge sharing between different G20 member nations.



<sup>&</sup>lt;sup>2</sup> Enhancing the Contributions of SMEs in a Global and Digitalised Economy, 2017

<sup>&</sup>lt;sup>3</sup> Hessels, et al., 2011



Startups have the potential to exploit the deficiencies of existing products/markets or create entirely new categories of products and services for existing/new markets by disrupting entrenched ways of thinking and adopting new business models. The Startup-20 Engagement Group, initiated under India's presidency of G20 in 2023, aims to craft a global narrative for supporting startups and enable synergies between key stakeholders of the startup ecosystem to empower entrepreneurs and firms and facilitate global startup cross-collaborations.

Startups are expected to play a lead role in rebuilding the post-Covid World as they balance innovations with employment generation. The Startup20 collaboration on 'Foundation' holds immense possibilities to reduce uncertainty in definitions and enables participants to mutually decide the most relevant foundations that can thereafter anchor the Startup ecosystem on an iterative concurrence-led approach basis.

The Startup20 Engagement Group envisages the following objectives to help develop a common narrative amongst G20 member nations:

- Harmonize the global startup ecosystem through consensus-based definitions, taking into consideration
  the diversity/variance as well as legal and regulatory frameworks which exist in different startup
  ecosystems across G20 member nations
- Strengthen startup ecosystems across G20 nations through policy interventions

The development of a "Handbook for Startups", which comprises consensus-based definitions and universal terminology, can help streamline the ease of doing business for budding entrepreneurs and solidify the foundation of the Startup20 Engagement Group, which in turn would enable a spirit of collaboration in various ecosystems. Adopting a generally accepted terminology for the global startup ecosystem will help develop a common narrative amongst G20 member nations and facilitate collaborations across nations between academia, governments, private corporates, investors, and associated stakeholders of the innovation ecosystem.



### **RECOMMENDATION 1.1**





# Recommendation 1.1: Create and adopt a global definition framework for startups across G20 nations

Policy Directives				
Policy Directive 1.1.1	Encourage multilateral organizations, research organizations, and other relevant stakeholders to adopt a definition framework for consistency in understanding and evaluating startup ecosystems			
Policy Directive 1.1.2	Align the existing definitions to the definition framework and ensure future alignment with the evolution of both government and private sectors			

#### **SDG Goals Impacted**





**Recommendation 1.1** contributes to the achievement of the UN's SDG for the goals: **8: Decent work and economic growth** and **9: Industry, innovation, and infrastructure** 

**Policy Directive 1.1.1** – Commits to the realization of target **8.2** (Achieve higher levels of economic productivity through diversification, technological upgrading, and innovation, including through a focus on high-value added and labor-intensive sectors).

**Policy Directive 1.1.2** – Developing a definitional framework would set the foundation for a mutual understanding between different member nations and set the foundation for global startup policies, assisting the accomplishment of targets **8.3** (Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity, and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services), and **9.5** (Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending).

It ultimately enhances the global industrial network in line with target **9.2** (Promote inclusive and sustainable industrialization and, by 2030, significantly raise the industry's share of employment and gross domestic product, in line with national circumstances, and double its share in the least developed countries).





### Context

#### The need for universal terminology on the global startup ecosystem

The word 'startup' has become synonymous with innovation, job creation, and economic growth, and its role in responding to global scenarios, especially in the wake of covid-19, is undeniable. However, there is a lack of consensus on a universal definition for the same.

Below are some of the existing legal definitions of startups formulated by various governments:

- Brazil: The new legal framework defined "Startup companies", in Article 4, as newly established companies (less than 10 years of operation) that present innovative business models or solutions, limited to specific company types, and with annual revenue limited to BRL 16 million (of the previous year-calendar). Additionally, the Startup must state its innovativeness in the company's bylaws or take part in the "Inova Simples" special regime for Startups.<sup>4</sup>
- South Korea: Start-ups are all entities that have been granted the legal status of a company, aged from
  one month to no later than 7 years after their establishment, regardless of the industry they operate in.
  These businesses include anything from coffee shops and small restaurants to nanotechnology and service
  providers.
- India: An entity shall be considered as a Startup: i. Up to a period of ten years from the date of incorporation/ registration, if it is incorporated as a private limited company (as defined in the Companies Act, 2013) or registered as a partnership firm (registered under section 59 of the Partnership Act, 1932) or a limited liability partnership (under the) in India.<sup>5</sup> ii. Turnover of the entity for any of the financial years since incorporation/ registration has not exceeded one hundred crore rupees (US\$13 million). iii. The entity is working towards innovation, development, or improvement of products or processes, or services, or it is a scalable business model with a high potential for employment generation or wealth creation. Provided that an entity formed by splitting up or reconstruction of an existing business shall not be considered a 'Startup'.
- Italy: Startups comprise limited companies (including cooperatives), new businesses or operational for less than 5 years, headquartered in Italy or another EU country, with at least a production site branch in Italy, annual turnover below €5 mln, not listed on a regulated market nor a multilateral negotiation system, do not distribute profits, is not a result of a company merger, split-up or selling-off, Develop, produce and commercialize, innovative products or services with a clear technological component

Moreover, a startup is considered innovative if it meets 1 of the 3 criteria –

<sup>&</sup>lt;sup>5</sup> Limited Liability Partnership Act, 2008



<sup>&</sup>lt;sup>4</sup> Brazilian Innovation Law, 2004



- 1. Expenses in R&D and innovation are at least 15% of either its annual costs or its turnover (the largest value is considered) or newly established startups that have not filed their first accounts yet will provide a forecast of R&D expenditure, or
- 2. Employs highly qualified personnel (at least 1/3 Ph.D. holders and students, or researchers, or at least 2/3 Master's graduates), or
- 3. Is the owner, depositary, or licensee of a registered patent or the owner of registered software?
- **Spain:** Article 1 of the new Startup Law defines what is an emerging company and the requirements to be eligible, in particular:
  - 1. Only applicable to startups with less than five years in case of innovative business and until 7 years in those cases based in deeptech + biotech business
  - 2. Newly established and registered office in Spain
  - 3. Turnover <€10M
  - 4. At least 60% of its labor force with Spanish labor contracts
  - 5. Innovate business model based on scalability
  - 6. Not be a listed company

As highlighted above, the definitions are varied, without standard frameworks amongst countries. Furthermore, many of the G20 nations do not have official definitions of startups defined by the respective government. The lack of similar terminology may prove to be a hurdle for startups in accessing new markets, due to regulatory constraints and variance in what is defined as a 'startup' in different jurisdictions. This can also have adverse effects on cross-border startup research collaborations due to variances in classifications and terminologies across the globe. Moreover, the lack of standard definitions relating to the startup ecosystem can also prove to be a hurdle in startups' access to international funding, including foreign donors and international grants, due to the differences in legal terminologies.

This brings out the dire need for governments to harmonize startup definitions to foster the growth and prosperity of startup ecosystems and enable a spirit of collaboration between startups across nations.

Standardization of terminology allows for more well-defined legislative and policy frameworks, thereby reducing risks. Moreover, the application of uniform definitions and terminologies establishes mutual understanding among market participants, leading to reduced irregularities, increased cooperation, and facilitation of an increase in global trade. <sup>6</sup>This in turn can serve as an enabler of efficient and partnership-based cooperation between member nations and provides a statutory foundation for the global startup ecosystem.

<sup>&</sup>lt;sup>6</sup> The Standardization of Law and Its Effect on Developing Economies, 2000







**Policy Directive 1.1.1:** Encourage multilateral organizations, research organizations, and other relevant stakeholders to adopt a definition framework for consistency in understanding and evaluating startup ecosystems

## A uniform strategy could be considered by G20 members, which view definitional framework not merely as a technical aid, but also as an efficient facilitator in global trade policy.

A lack of standardization and uniformity in terminologies results in potential alignment issues between countries, especially with countries that often adopt a strong country/regional focus in their startup ecosystem policies. To consider expansion opportunities beyond domestic territories and facilitate global trade and investment, it is crucial to first create a mutual understanding between member nations through the adoption of a consensus-based definition framework for 'Startups' and other terminologies on institutions and resources, both internal and external, that impact the establishment and growth of startups. As the legal and operational definitions for the term startup differ across geographies, there is a need to develop a startup definition framework that brings standardization as well as flexibility for nations to easily adopt. There are a host of startup ecosystem stakeholders (incubators, accelerators, investors, enablers, etc.) which also need standardization to easily operate and form collaborations across nations. Additionally, the startup ecosystem may benefit from some standard stages of a startup's evolution journey including how we define various stages and how startups are funded. Many of the processes around startup and ecosystem activities may also benefit from definitive terminologies.

One of the key elements of this process of harmonizing terminologies is the one related to what could be considered an innovative business model or how a company is promoting R&D in its field. In general, many countries already defined this in the past to promote innovation policies in their territories, getting their previous terms of innovation could help in the process to define what a startup should be.

The G20 countries may highlight the need to further deliberate, collaborate, and work together on universal terminologies and definitions around the startup ecosystem, and update existing definitions based on the framework, towards building national policy frameworks that can be easily understood and adopted in different geographies.

The startup ecosystem of a particular country is a multidimensional construct shaped by several interactions between economic agents, key stakeholders, governing institutions, and related frameworks. Countries cover a wide range of institutional settings, adding weight to their entrepreneurial ecosystem, which is governed by complex social and institutional interactions and country-specific configurations.<sup>7</sup>

<sup>&</sup>lt;sup>7</sup> A composite indicator analysis for optimizing entrepreneurial ecosystems, 2022







**Policy Directive 1.1.2:** Align the existing definitions to the definition framework and ensure future alignment with the evolution of both government and private sectors

## The G20 members may frame a study in their respective countries, collecting data on terminologies currently established in their respective startup ecosystems.

The study could develop a holistic repository of definitions and compare the same to flesh out commonalities, variances, inconsistencies, etc. The suggested approach can help facilitate insights and conclusions through an iterative concurrence-led approach as to in what areas common definitions across the G20 nations could be easily created and/or whether, in which areas, there may be a need to be country-centric definitions.

The member nations should put forward the existing definitions and terminologies on the startup ecosystem of their respective country, if any, and align such definition/s with the startup definition framework.

The existing nomenclature of startup-related terms depicts variations across geographies, with differences in the criterion classifications for startup definitions. Collating and cataloging knowledge through a multi-country review and analysis of the startup ecosystem in G20 member nations will aid in gaining a multi-level perspective on existing perceptions, definitions, and major elements of this ecosystem, and determine the roles of such elements in startups' product development and growth. This would include sifting through existing startup-associated nomenclature, identifying interlinkages and commonality across countries, as well as studying key components of consideration when defining such terminology. Literature review and secondary research allude to several critical indicators utilized to classify startups and affiliated terms, including finance, demography, market, education, human capital, technology, entrepreneur, and support factors, among others. An exhaustive list of key criterion factors and terminologies will be constructed upon the recommendations and consensus of member nations to gain an inclusive representation and understanding of areas of importance for different countries.

The definition of 'startup' could be a skeleton structure/framework highlighting key parameters, which can be adopted by countries, startup support entities, etc. for creating a structured definition with flexibility in terms of parameters and standardization in terms of the framework.

An analysis of the existing startup ecosystem will help create a framework for a globally strengthened system that, with international cooperation, will help streamline regulatory processes and policies on global startup business and trade.

The collation and organization of existing information on startup terminologies will help create a knowledge repository of key terms that directly and indirectly affect the startup ecosystem, including but not limited to stakeholders, supporting organizations, infrastructure, network, and region. To achieve an enhanced ecosystem, it is crucial to acknowledge the heterogeneity of countries' varying startup ecosystems, determine the ecosystem

<sup>&</sup>lt;sup>8</sup> Insights into Startup Ecosystems through Exploration of Multi-vocal Literature, 2018





constituents that should be prioritized, and develop a comprehensive list of key terms that are impacted by or can have impacts on the global startup ecosystem. Estimating the relative importance of the ecosystem's building blocks will enable governing institutions to make improvements in the quality of the ecosystem through evidence-based, tailor-made, and more informed startup policy.

The member nations could put forward the existing definitions and terminologies about the startup ecosystem of their respective country, if any, and try to align such definition/s with the global startup definition framework

This will prove to be a key component in the acceptance of the startup definition framework. The member nations should form relevant groups which can study the existing legal/prevalent definition of startups in their respective countries and give guidelines on the alignment of such definitions with the definition framework without creating major disruptions in the policies linked to such definitions. Such guidelines can be adopted by the respective member nations thereby harmonizing startup definitions across different startup ecosystems.

Moreover, the country analysis should follow a process of commonly defined methodologies to measure startup ecosystem impact in terms of GDP, employment, social, and productivity among others. Standardization of methodologies for this analysis could be a first step to harmonizing future studies and statistics in the G20 countries.



### **RECOMMENDATION 1.2**





# Recommendation 1.2: Create and adopt a policy framework that strengthens the startup ecosystems within and across G20 nations

Policy Directives			
Policy Directive 1.2.1	Encourage G20 nations to formulate their respective national startup policies		
Policy Directive 1.2.2	Adopt best practices from other G20 nations to re-calibrate existing national policies		
Policy Directive 1.2.3	Re-evaluate and update policies that inhibit the growth of the startup ecosystems		
Policy Directive 1.2.4	Promote policies that facilitate and encourage startup-centric global trade and investment		

### **SDG Goals Impacted**







Recommendation 1.2 contributes to achieving UN SDGs: 8: Decent work and economic growth, 9: Industry, innovation, and infrastructure, and 17: Partnerships for the goals.

**Policy Directive 1.2.1** – Commits to the realization of target **9.2** (Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity, and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services).

**Policy Directive 1.2.2** – Focuses on mapping global best practices from the startup ecosystem and would enable sustaining target **9. a** (Increase Aid for Trade support for developing countries, in particular, least developed countries, including through the Enhanced Integrated Framework for Trade-Related Technical Assistance to Least Developed Countries).

It ultimately enhances the global industrial network in line with target **9.2** (Promote inclusive and sustainable industrialization and, by 2030, significantly raise the industry's share of employment and gross domestic product, in line with national circumstances, and double its share in the least developed countries).

**Policy Directive 1.2.3** – Amending startup policies that are conducive to easier access to funding and increased investment in innovation research and development supports targets **17.3** (Mobilize additional financial resources for developing countries from multiple sources). And **9. b** (Support domestic technology development, research,





and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities).

**Policy Directive 1.2.4** – The ability to enhance critical support areas for startup growth and longevity assists the accomplishment of target **8.3** (Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity, and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services). Strengthening long-term public involvement to stimulate R&D and ensuring continuous and fruitful cooperation with the private sector would benefit target **9.5** (Enhance scientific research, and upgrade the technological capabilities of industrial sectors in all countries).

#### Context

### The need to identify critical factors and policies that enable startup ecosystems

The global startup ecosystem comprises a wide range of variances, both in the size of startup ecosystems, the extent to which startups contribute to the Gross Domestic Product (GDP) of a nation as well as their concurrent phases of growth.

Start-ups and young firms are the engines of job creation, with younger firms showing significantly higher rates of average net employment growth as compared to more established incumbents. Although the potential of startups in fueling employment and increasing economic activity within and across countries and sectors cannot be denied, there are variances in the growth rate of startups and their contribution to job creation across different regions, with certain countries such as Netherlands and Sweden, in which startups contribute 21% and 52% respectively to the total job creation, proving to be exponentially larger than the global average of 3%. 10

Moreover, despite having the potential of creating almost half of emerging economies' jobs, firms five years old or younger account for only 21% of total employment on average, strengthening the claim that although the number of startups across countries has increased exponentially over the past few decades, only a tiny fraction of start-ups substantially contribute to economic growth, while the majority either fail in the first years of the activity or remain very small.

This discrepancy between the potential and actual benefits realized by startups calls for the dire need to examine existing policies about startups and adopt enabling policies that will create a robust startup ecosystem that creates the maximum impact on nations' GDP growth, job creation, productivity, and overall employment rates.

<sup>&</sup>lt;sup>10</sup> Cross-country Evidence on Start-up Dynamics, 2015



<sup>&</sup>lt;sup>9</sup> Organisation for Economic Co-operation and Development (OECD), 2022



This discrepancy across regions also brings into question the underlying factors that have prompted the growth and success of the startup ecosystem in countries with booming startup and entrepreneurship networks. Examining the critical success factors of startup ecosystems over multiple phases of growth, and systemic, regulatory, and policy facets conducive to the growth of country innovation ecosystems will help provide a roadmap for other G20 member nations to scale their nation's startup ecosystem.

Countries have recognized the vital role that the proliferation of startups plays a critical role in promoting innovation, creating jobs, and stimulating economic growth. Several countries have actively taken steps to strengthen their startup and incubation ecosystems through various initiatives including the establishment of incubation centers, conducive economic and legislative policies that increase the ease of doing business for young entrepreneurs and startups, and providing funding opportunities, among others. Recognizing the significant contribution that the startup ecosystem could have on the nation's GDP (an estimated increase of 4-5%),

- India has taken several measures to foster an incubation and startup ecosystem. The Government of India launched the Startup India initiative in January 2016, with the vision of building a robust ecosystem for fostering innovation and startups in the country. Under this scheme, the government undertook an Action Plan laying down the frameworks for government support, schemes, and incentives envisaged to create a vibrant startup ecosystem through simplification and handholding, funding support and incentives, and industry-academia partnerships and incubation. This has led to an exponential increase in the number of startups in the country, from 452 registered startups in 2016 to 84,012 in 2022, leading to India becoming the third-largest startup ecosystem in the world.<sup>11</sup>
- Similarly, South Korea has also implemented government support schemes for startups such as Tech
  Incubator Program for Startups (TIPS), a state-led incubation program that nurtures promising startups by
  providing access to government funding. South Korea established the Ministry of SMEs and Startups to
  systematically oversee various startup support schemes to implement startup-specific policies, which
  added momentum to the already growing startup landscape in the country.
- The government of Japan has positioned 2022 as the first year of startup creation and formulated the "Startup Development Five-year Plan". It aims towards increasing the scale of investment by more than a factor of 10x (to 10 trillion yen) by FY 2027, creating 100 unicorns and 100,000 startups in the future, and making Japan the largest startup hub in Asia and one of the world's leading clusters of startups. Based on this plan, 1 trillion yen is allocated to support startups under the supplementary budget for FY2022.
- Spanish scale-ups have become a key enabler for new entrepreneurship: i) the founders of these
  companies that were startups a few years before are normally investing in new startups and ii) former
  employees have taken the DNA of their previous companies becoming serial entrepreneurs who build new

<sup>&</sup>lt;sup>11</sup> Ministry of Commerce & Industry, 2022







startups. The study "Mapping the Spanish Tech Ecosystem 2022" shows examples of this way of scale-ups providing support for new startups.

• Türkiye's National Tech Entrepreneurship Strategy aims to foster a dynamic and innovative startup ecosystem in the country. The strategy focuses on enhancing the entrepreneurship culture, improving access to funding, and providing a supportive regulatory environment for startups. Within the National Technology Entrepreneurship Strategy, Türkiye also launched Turcorn 100 Program. Turcorn 100 is a program that they have designed to bring out new companies that have reached a billion-dollar valuation from Türkiye within the framework of this vision document.

A more informed policy can increase not only the number of startups in countries by way of startup-focused incentives but also improve the quality of the entrepreneurial and startup ecosystem through identification and focus on critical success factors of startups.

#### Policy Directive 1.2.1: Encourage G20 nations to formulate their respective national startup policies

The G20 may catalog country-specific national policies and efforts taken to galvanize their startup ecosystems over the past decade. Nations that have developed a robust startup ecosystem and accomplished exponential growth can serve as benchmarks for startup policy and trade.

Several countries have taken active measures to accelerate their startup ecosystems, witnessing exponential growth in both the number of startups as well as their advancement and growth. As both Europe's biggest economy and largest market, Germany plays an important role within the global startup ecosystem with substantial sector public support toward fostering technology-based innovation and accelerating digital transformation. Germany introduced the 'Digital Hub Initiative' as a driving force of innovative start-up business models and technologies, which matches startups with SMEs, big corporations, investors, and academia. These innovation hubs, twelve in total, are spread across the country and cover a range of sectors including logistics, mobility, and fintech among a few. This has led to a proliferation of entrepreneurship across the country, with Germany hosting one of the most startup ecosystems in the world, with more than 60,000 startups in highly specialized sectors, including unicorns such as Celonis, FlixMobility, and N26. Türkiye has established several innovation hubs, such as Technoparks, which serve as ecosystems to support start-ups and entrepreneurial ventures. These hubs provide a range of services, including infrastructure, mentorship, networking opportunities, and access to funding, to help start-ups develop and commercialize their innovative ideas.



<sup>&</sup>lt;sup>12</sup> The Digital Hub Initiative, 2022

<sup>&</sup>lt;sup>13</sup> Germany Trade and Invest, 2022



**Policy Directive 1.2.2:** Adopt best practices from other G20 nations to re-calibrate existing national policies

The G20 could create a multi-stakeholder startup policy framework that can encourage, develop and strengthen the startup ecosystem in and between the G20 nations

Startup ecosystems around the world require strong foundations and enablers to support the build-up of a pool of a large number of successful startups working within these ecosystems. These enablers may be looked at as a set that is key to the growth of startups at each stage of the startup lifecycle. There are multiple stakeholders, including academia, research, private sector organizations, government, and regulatory bodies, that play a critical role in propelling startups and synergizing the global startup ecosystem.

Facilitators of the startup ecosystem (Study of startup ecosystem in Greece)

<b>Enabling Factors</b>				
	University	Industry	Government	Civil Society
Education and Research	Universities Research Institutes Technology Parks	Business mentors Seminars R & D & I departments	National/European Education/Research Policy	Meetups
Human Resources	Students Internship offices	Recruiters Business Partners	Employment agencies	Skilled Personnel Idea bearers
Networking and Support	Pre-incubators	Coworking spaces, Incubators, Accelerators	Patent offices	Meetups and Communities News
Governmental Interventions	Legislation Taxation regarding Education and Research Institutes	Legislation, Tax incentives for innovation business activities	National Legislation and Taxation Policy	Feedback, Open government
Funding	Innovation Contests	Venture Capital, Business Angels, Banks, Contests	Public funding E.U. funding	Crowdfunding NGO

Source: Journal of Open Innovation: Technology, Market, and Complexity (https://www.mulpi.com/journal/joiling)

The policy framework will focus on domains such as product/service innovation, goals, nature of intervention and support provided, funding mechanisms, success criteria, business model, etc., and provide suggestive criteria for country-specific start-up reviews. This would pave the way for member nations to formulate a conceptual framework representing the critical success factors of leading innovation and startup ecosystems over its vital phases of growth. This in turn would help identify global best practices and benchmarks for scaling the startup ecosystems in G20 member nations.

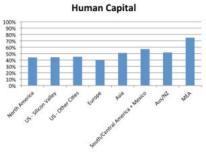


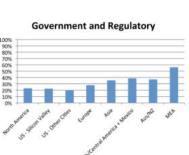


**Policy Directive 1.2.3:** Re-evaluate and update policies that inhibit the growth of the startup ecosystems

The G20 may implement policy measures that help address institutional or market failures that limit startup performance at the national and international level

Despite major differences in entrepreneurial ecosystems from one region to the next, there are substantially more similarities than differences in the major growth accelerators as well as the major growth challenges facing the startup ecosystem around the globe. These pivotal pillars can be observed in all regions and have an impact on startup growth and development -accessible market conditions, human capital/workforce and funding & finance, mentorship/advisory support, regulatory framework, infrastructure, startup education and training, industry-research collaborations, and cultural support for the startup ecosystem. Of these mentioned facets, there are four major verticals that startups perceive as growth inhibitors, such as lack of human capital, limited access to finance, government, and regulatory hurdles, as well as access to markets. (Figure 2)





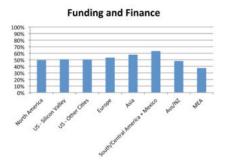




Figure 2: Relative Importance of Company Growth Challenges by Continent Source: World Economic Forum Entrepreneurial Ecosystems Report, 2013

Startups face several challenges and roadblocks over their multi-phase growth journey, that require systemic interventions to address the same and help startups succeed. Better access to funding, the provision of startup

<sup>&</sup>lt;sup>14</sup> World Economic Forum Entrepreneurial Ecosystems Report, 2013





education and training, and conducive government and regulatory policies can help entrepreneurs overcome crucial challenges and serve as potential growth accelerators for startups.

The dearth of financial resources is one of the biggest hurdles facing startups across regions, which in turn prevents them from executing their research ideas into scalable ventures.

## Policymakers could help alleviate financial barriers by providing funding through grants, loans, and other innovative financial instruments.

Governments can support start-ups in the foundation stage and help remove financial barriers, by providing a range of funding instruments such as startup-focused loans and grants. For example, the German government provides several innovation-focused loans such as the 'ERP Start-up Loan-Start-Up Money' and 'ERP Digitisation and Innovation Loan' offered by the Federal Ministry for Economic Affairs and Energy from the Federal Government's ERP Special Fund to fuel innovation and startup focused research. Moreover, governments can also provide tax incentives for investors funding start-ups to stimulate private sector funding in the startup sector. For example, the Research and Development Tax Credit in the United States allows companies to claim a credit against their taxes for certain R&D expenses. Financial support can greatly aid entrepreneurs and startups in translating their innovative research and ventures to reach fruition and tangible results, thereby stimulating greater confidence in the evolving startup ecosystems of G20 nations. Türkiye's Small and Medium Enterprises Development Organization provides various financial support programs for entrepreneurs, such as low-interest loans, grants, and loan guarantees, to encourage the growth of small and medium-sized businesses. These supports aim to foster innovation and competitiveness in the Turkish economy and enable entrepreneurs to access the necessary funding to realize their business ideas.

**Policy Directive 1.2.4:** Promote policies that facilitate and encourage startup-centric global trade and investment

The G20 may identify the key entrepreneurial ecosystem enablers and pathways that strengthen startup activity across countries

Several factors play a key role in developing entrepreneurial ecosystems and fostering a vibrant start-up environment for the creation and growth of new and innovative businesses, including (i) regulatory frameworks, (ii) access to capital, (iii) start-up ecosystem infrastructure, (iv) market conditions and reach, (v) access to talent, (vi) creation and diffusion of knowledge, and (vii) level of digitization and global connectedness.<sup>16</sup> Policymakers should

<sup>&</sup>lt;sup>16</sup> Migration Policy Debates, Organisation for Economic Co-operation and Development (OECD), 2023



 $<sup>^{15}</sup>$  Attracting and Supporting International Start-Ups and Innovative Entrepreneurs in Germany, 2020



provide unequivocal support toward building startup ecosystems through conducive regulatory and taxation policies to attract new firms, entrepreneurs, or foreign talents to the country's innovation ecosystem.

The G20 should actively promote research and innovation activities with universities, research organizations, and other relevant stakeholders to expand the pool of knowledge about the startup ecosystem in each of the G20 nations.

Universities and research institutes act as catalysts for entrepreneurship by bringing highly-skilled professionals to the startup ecosystem. Higher Education Institutes (HEIs) can further foster the spirit of knowledge-creation and entrepreneurship in a formal, structured approach by providing platforms to support early-stage companies through start-up incubation centers or accelerators and innovation hubs. Higher education policies focusing on entrepreneurship development, intellectual property rights, and research and development will provide further impetus toward stimulating the startup ecosystem. Moreover, incubator systems also provide mentees with a plethora of networking opportunities with mentors, program alumni, and industry experts to gain deeper insights into the startup ecosystem. This would enable young professionals to translate their research ideas into scalable and sustainable ventures that would provide solutions to the world's most pressing challenges and contribute to the growth of the global economy.

The G20 may introduce policies and interventions which can spurt the growth of the startup ecosystem.

The G20 should implement good governance practices related to ease of starting a business, exits, bankruptcies, corporate & entrepreneurship policies for attracting foreign talents and promoting entrepreneurship among immigrants, as well as labor policies targeting the flexibility of labor markets. Mapping the growth of startup ecosystems during the last three decades and assimilating best practices of running incubators/accelerators in the country's start-up hubs and across govt. and private sectors will allow policymakers to identify enabling country-specific regulations to scale and support the startup ecosystems.<sup>17</sup> Examining the critical success factors of leading startup ecosystems over multiple phases of growth, and systemic, regulatory, and policy facets conducive to the growth of country innovation ecosystems will help provide a roadmap for G20 member nations to develop their national startup ecosystem and integrate it with the global markets.

 $<sup>^{17}</sup>$  International Best Practices on Supporting Startup Ecosystems, 2017

