

2023-2032

NIASD

NATIONAL INNOVATION AGENDA AND STRATEGY DOCUMENT

ABRIDGED VERSION



NATIONAL INNOVATION AGENDA AND STRATEGY DOCUMENT

The National Innovation Agenda and Strategy Document (NIASD) details the country's 10-year vision and long-term goals for innovation and provides the roadmap and strategies for improving innovation governance; deepening and accelerating innovation efforts; and integrating and fostering public-private partnerships. The goal is to transform the country into a Smart and Innovative Philippines that is productive, resilient, sustainable, and inclusive.

This NIASD covers the period 2023-2032, which means that foundational strategies and reforms will be implemented within the ambit of the Philippine Development Plan (PDP) 2023-2028. Establishing a dynamic innovation ecosystem, further elaborated in Chapter 8 of the PDP, is among the six cross-cutting strategies in the transformation agenda identified in the PDP to achieve a prosperous, inclusive, and resilient society.

Government has a critical role to play in the establishment of a dynamic innovation ecosystem. This is elaborated in the NIASD as the five innovation enablers, namely: The NIC as the innovation governing body, policies, infrastructure, finance and programs, which provide an enabling environment to support entrepreneurs and innovation actors.

The NIASD serves as a strategic guide for innovation policymakers, government agencies, startups, incubators, accelerators, MSMEs, the R&D community, academia, entrepreneurs, investors, and innovation champions across the country. It was drafted and co-created with both public and private stakeholders.

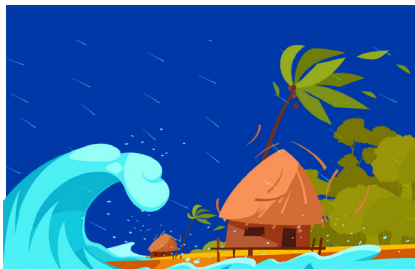
**Scan for the full version of
the NIASD 2023-2032:**



THE PHILIPPINES BY 2040

In turning our vision of the future into a reality, it must consider how the present conditions will drive the future, while also acknowledging the weight of the past. It is then important to carefully characterize the future we do not want and the future we want.

Our Unwanted Futures



Masakuna

DISTRESS AND DISASTERS

Technology is advancing, but it cannot be utilized to solve the climate crisis.



Langit-Lupa

WIDER INEQUALITIES

Advancements in technologies reward the first adopters, while laggards remain in deep poverty.



Mabagal

SLOW CHANGE

There is considerable technological progress, but society has a slow response to stimuli. Solutions are more reactive than proactive.

The Life We Want



Matatag STRONGLY ROOTED

It is a high-trust society with a strong sense of community.



Maginhawa COMFORTABLE

No one is poor, no one is ever hungry.



Panatag SECURE

Filipinos live in peace and security with enough resources not only for day-to-day needs but also to secure the future.

The Need for Innovation

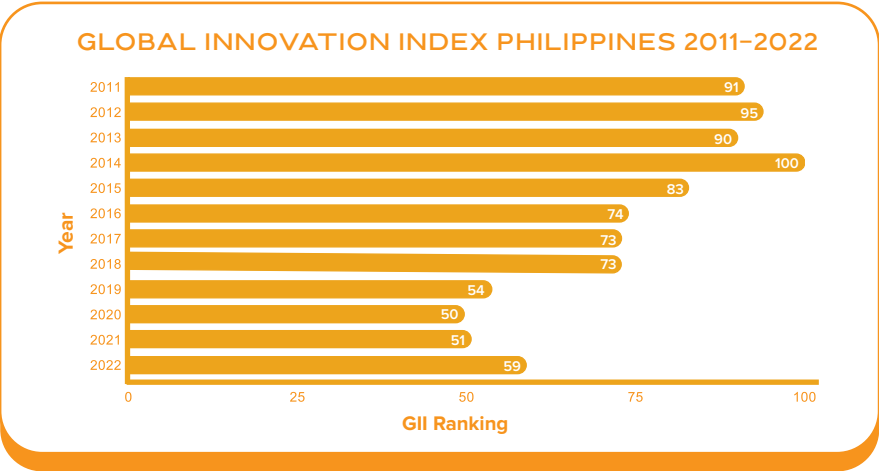
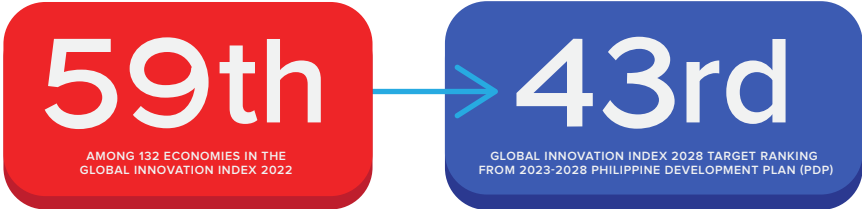
Innovation is vital to long-run, sustained economic growth and overall national development. It is needed to continuously improve processes, increase efficiency, create opportunities, and address challenges such as climate change and healthcare access.

Innovation, through a dynamic innovation ecosystem, will facilitate the creation and translation of knowledge and ideas into high-quality and competitive products and services to promote economic growth, well-being, social inclusion, and environmental sustainability. It will help us avoid the unwanted futures from becoming a reality and can be the key to achieving *Ambisyon Natin 2040 – a matatag, maginhawa, at panatag na buhay para sa lahat.*

THE STATE OF

THE PHILIPPINE INNOVATION ECOSYSTEM

The Global Innovation Index is a global reference tool used to measure an economy's innovation performance.



Source: World Intellectual Property Organization, 2022

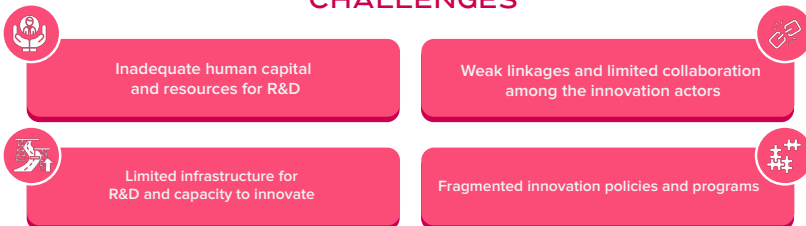
GII RANKING IN ASEAN REGION¹



OPPORTUNITIES



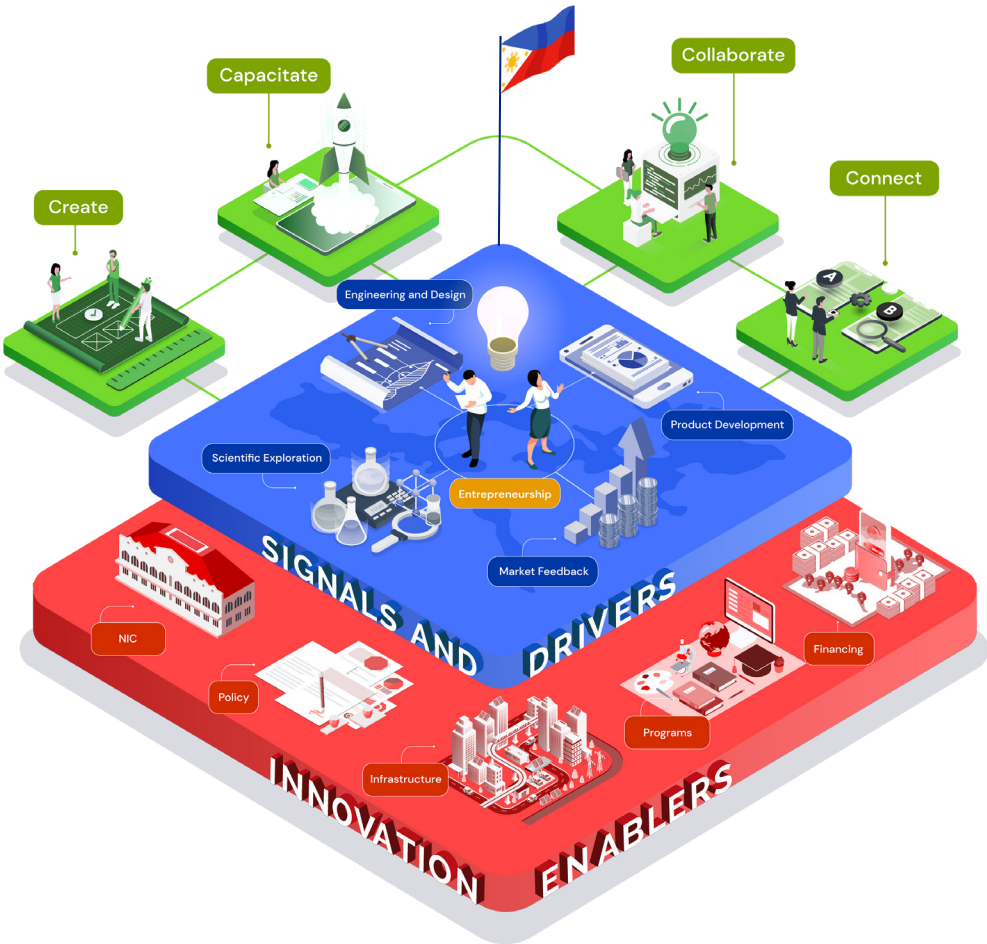
CHALLENGES²



¹ World Intellectual Property Organization, 2022

² USAID-STRIDE Assessment Report, Chancellors Institute of Governance Report, and Chapter 8 Advance Research and Development, Technology and Innovation of the PDP 2023-2028.

THE DYNAMIC INNOVATION ECOSYSTEM



THE DYNAMIC INNOVATION ECOSYSTEM

The innovation ecosystem is formed by a dynamic and complex relationship among innovation actors. They work together in performing innovation activities that transform ideas into new or improved products and services that are market-valued, market-driven, and market-oriented.

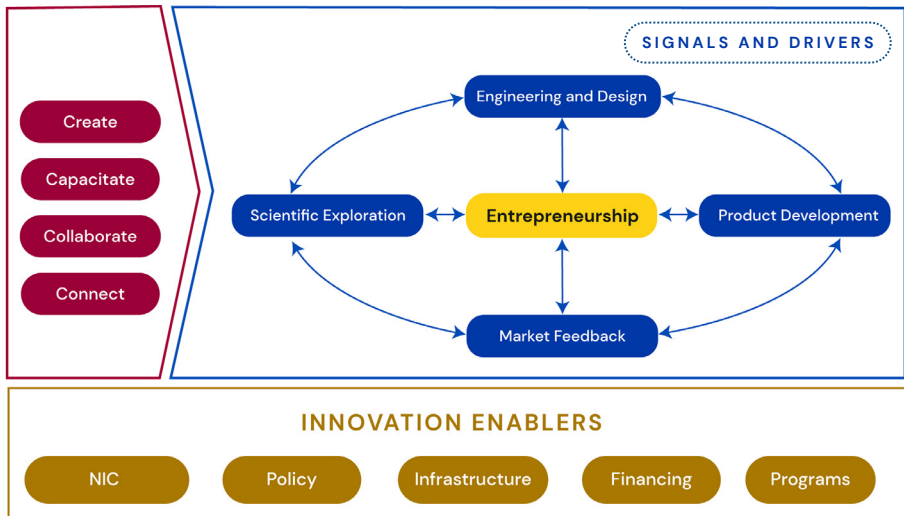


Figure 1. The Innovation Ecosystem Framework³

The Innovation Ecosystem Framework (Figure 1) puts the entrepreneur at the heart of the innovation process. Beginning with increased awareness of issues or problems being experienced by the user, the entrepreneur sets out to find possible solutions that may have already been discovered by scientists; he reaches out to engineers and designers in creating user-centric marketable products. Further, creative and marketing experts are engaged to increase the commercial appeal of the product. Ultimately, the final product is introduced to the market. Inspired by the design thinking process, continuous feedback and iterations are solicited for further improvement.

Innovation is seen to happen not sequentially but rather iteratively. It requires market information, scientific knowledge, tools, equipment, application for design and prototyping, and user feedback.

³ Inspired by the Cyclical Innovation Model of Berkhout et. al. (2006)

THE DYNAMICS OF A DYNAMIC INNOVATION ECOSYSTEM

A dynamic ecosystem is characterized by continuous movement of the different components of the ecosystem. The government needs to provide the necessary resources for and remove the barriers that hamper innovation. In particular, the government needs to provide opportunities to:



CREATE a pervasive culture of innovation that is market-driven and market-oriented.



COLLABORATE with innovation actors using platforms that are active, reliable, and useful.



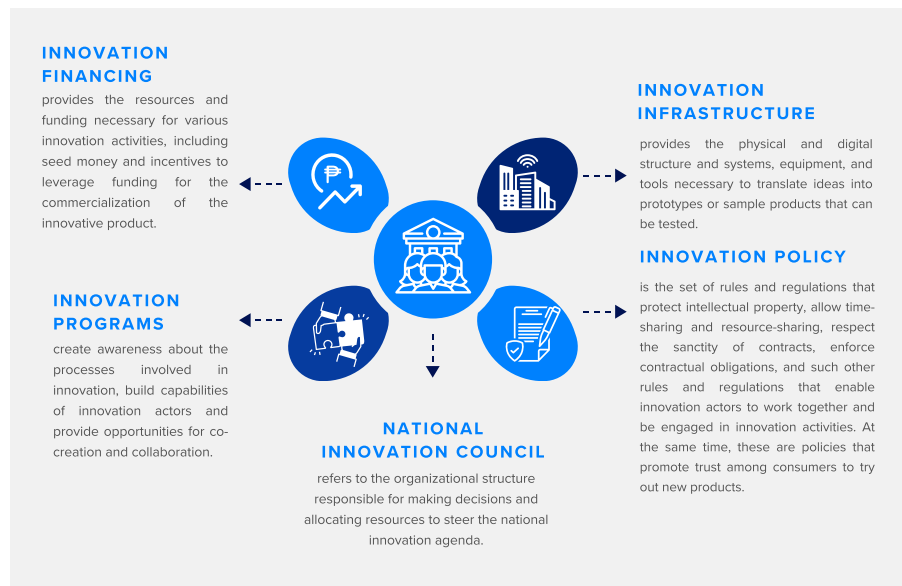
CAPACITATE innovation actors with facilities and resources to transform their ideas into innovative products and services.



CONNECT innovation actors with potential commercially viable products to investors and potential markets.

INNOVATION ENABLERS

The key to establishing a dynamic innovation ecosystem is to improve innovation governance. The goal of innovation governance is to encourage and direct innovation towards the future we want and avoid unwanted futures in a way that makes efficient and sustainable use of resources.



STRATEGIES

FOR ESTABLISHING A DYNAMIC INNOVATION ECOSYSTEM

Presented below are the five (5) enablers with identified objectives for establishing a dynamic innovation ecosystem. Specific strategies for each enabler are clustered into short- (2023-2024), medium- (2025-2027), and long-term (2028-2032) period. The details are in the full NIASD version.

I. National Innovation Council



Strengthen the capability of the NIC
as the primary coordinating body for the country's innovation goals, priorities, and strategies



Mainstream innovation
in sectoral and local plans, and investment programs



II. Innovation Policy



Increase investments and expenditures
for R&D and innovations both in the public and private sectors



Establish an agile regulatory standard
designed for innovative products and services at the early stage of development/business



Implement reforms and formulate guidelines
that will streamline various transactions within the innovation ecosystem



Enact policies that will improve competition,
business, and regulatory environment for innovations



Align education and human capital development programs
with the needs of the current industry and emerging market demands



III. Innovation Infrastructure



Design, establish, and upgrade physical and digital R&D technology and innovation infrastructure and standards to support innovation actors in transforming their ideas into innovative products and services



Provide and manage resources such as knowledge products that increase/encourage lifelong learning of innovation actors in the public and private sectors



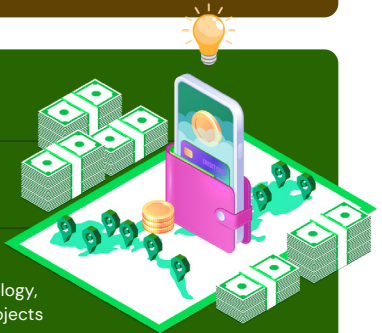
IV. Innovation Financing



Develop a holistic financing program for innovation



Stimulate private sector and international funding and support for research and development, technology, and innovation-related programs, activities and projects



V. Innovation Programs



Strengthen innovation culture and inculcate required knowledge, skills, competencies, and character qualities to innovate starting from the early stages of life



Accelerate academe-industry-government collaboration (triple helix model of innovation) in establishing innovation alliances, incubation and accelerator programs, and market-driven R&D ventures



Promote continuous and lifelong learning to foster and sustain innovation abreast with latest industry trends and needs



THE NATIONAL INNOVATION AGENDA FRAMEWORK

The National Innovation Agenda subscribes to the AmBisyon Natin 2040: matatag, maginhawa, at panatag na buhay as the preferred future. Amid various challenges—present and future, both anticipated and unanticipated—the key to achieving the AmBisyon Natin 2040 is to transform the country into a Smart and Innovative Philippines. This involves having: (a) a proactive, smart, and innovative people; (b) a competitive and resilient economy; (c) collaborative and reliable institutions; and (d) an efficient, clean, and sustainable environment (Figure 2).



Figure 2. National Innovation Agenda Framework

The NIASD outlines the strategies to establish a dynamic innovation ecosystem, with the government driving the agenda. Government action will put in place the enabling conditions: efficient and competent governing bodies, responsive policies, appropriate infrastructure, effective programs, and adequate financing support. For the period 2023-2032, emphasis will be given to ten sectors that have faced severe challenges brought about by the COVID-19 pandemic and the resulting restrictions on economic and social activities.

PRIORITY AREAS

Responsible agencies are indicated for each priority areas. They shall work with other innovation actors, both public and private, in achieving a dynamic innovation ecosystem.

 Learning and Education	CHED (LEAD), DOLE, DILG, DTI, DEPED, DOST, IPOPHL, TESDA
 Health and Well-Being	DOH (LEAD), DOST, DILG
 Food and Agribusiness	DOST (LEAD), DA, DTI, FDA, NNC, DILG, IPOPHL
 Finance	BSP (LEAD), DBM, NEDA, DTI, DOST, DOF, COA
 Manufacturing and Trade	DTI (LEAD), IPOPHL, DOST, DENR, DILG, DOLE
 Transportation and Logistics	DOTR (LEAD), DTI, DOST, DOE, DPWH, DICT
 Public Administration	DICT (LEAD), NEDA, DBM, DILG, CSC, DOLE
 Security and Defense	DND (LEAD), DILG, DFA, DOST
 Energy	DOE (LEAD), DENR, DOST
 Blue Economy and Water	DENR (LEAD), DA-BFAR, DOST, DILG, DTI, DOE

NIASD CORE TARGETS

GII Sub-Indices/Indicator	Baseline (2022)	2028	2032*	2040*
Overall GII ranking	59th	43rd	34th	25th
GII score	30.7	35	41	47
1. Institutions				
◆ 1.2.1 Regulatory Quality (rank)	72	53	49	40
1.3.1 Policies for doing business (rank)	96	76*	66	43
2. Human Capital and Research				
◆ 2.3.1 Researchers, FTE/mn pop.	174 (2018)	500	1,000	1,500
◆ 2.3.2 Gross expenditure on R&D, % GDP	0.32 (2018)	1.0	1.6	1.8
3. Infrastructure				
3.1.1 ICT access (rank)	100	71*	53	40
3.1.2 ICT use (rank)	95	71*	53	40
4. Market Sophistication				
4.1.1 Finance for startups and scaleups ^a	0 (2021)	3*	5	7
4.2.2 Number of venture capital deals invested in (per billion PPP\$ GDP, three-year average)	0 (2021)	0.1*	0.2	0.3
5. Business Sophistication				
◆ 5.1.2 Firms offering formal training, %	59.8	75	80	85
◆ 5.2.1 University-industry R&D collaboration ^b	3.7	4	4.5	6
◆ 5.3.4 FDI net inflows, % GDP	2.7 (2021)	2-5	6-8	9-12
6. Knowledge and Technology Outputs				
6.1.1 Patents by origin/bn PPP\$ GDP ^c	0.5	1.0*	2.0	4.0
6.1.3 Utility models by origin/bn PPP\$ GDP ^d	0	0.5*	0.7	1.0
◆ 6.2.2 New businesses/th pop.	0.2	1.3	1.5	4.0
6.2.5 High-tech manufacturing, % total manufacturing output	38.7	45*	50.0	60.0
◆ 6.3.3 High-tech exports, % total trade	39.7	46.9	50	55
7. Creative Outputs				
7.1.2 Trademark by Origin/bn PPP\$ GDP	33.6	40*	48	68.0
7.1.3 Global Brand Value, top 5,000, %GDP	41.8	50*	62	78.0
7.2.1 Cultural and Creative Export, % total trade	0.1	2.0*	3.0	4.0
7.2.5 Creative Goods Export, % total trade	6.3	7.3*	8.0	10.0

* Proposed targets

◆ GII Indicators that are monitored in the PDP 2023-2028

^a Five-year average perception scores (1=completely false; 10 = completely true)

^b Average perception scores [1 = not at all; 7 = to a great extent]

^c Number of resident patent applications filed (per billion PPP\$ GDP)

^d Number of resident utility model applications filed (per billion PPP\$ GDP)

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