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INNOVATION SUPPORT ECOSYSTEM TO ACCELERATE DIGITAL TRANSFORMATION

Sokjin Chang

Managing Director

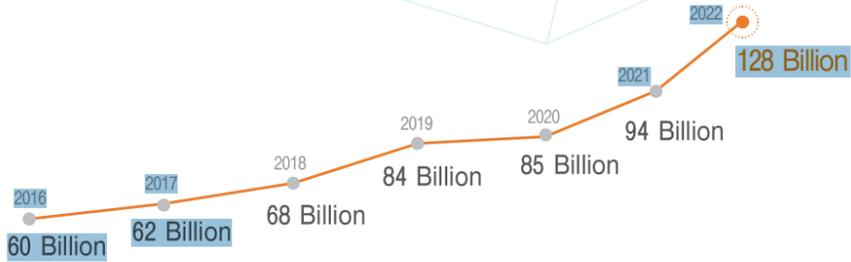
Global Digital Innovation Network

Pangyo Techno Valley

Companies **1,622+** Employees **78,751+**
 Area **1.67km²** Sales/year **\$128B+**

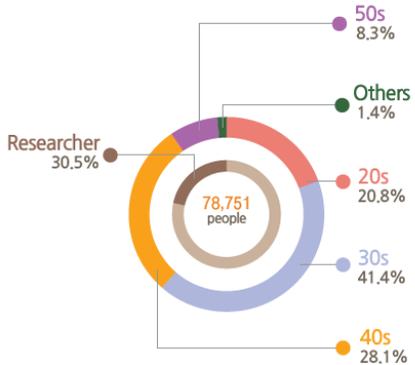
Total Sales

(USD)

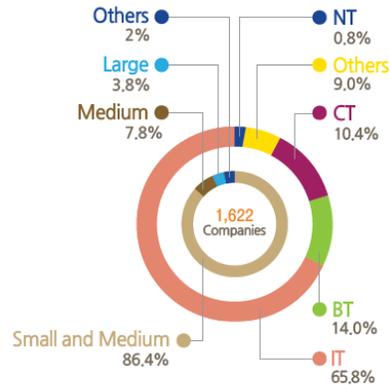


Total sales is the sum of the sales generated by all resident businesses

Employees



Companies



Bloomberg Rank #1 “Innovation Index 2021”

South Korea remained the big winner, topping the Bloomberg 2021 Innovation Index, with top-five rankings in patent activity, R&D intensity, manufacturing value-added, researcher concentration, and high-tech density.



World Bank Group

Rank #5 “Ease of Doing Business Index 2020”



GEM: Global Entrepreneurship Monitor

Entrepreneurial Framework Conditions 2020/21

- Ease of entry: market dynamics Rank #1
- Government policy: support and relevance Rank #5
- Physical infrastructure Rank #6



StartupBlink

Rank #19 “Global Startup Ecosystem Index 2021”



WEF : World Economic Forum

Rank #1 “ICT Adoption, Global Competitiveness Index 2019”

Bloomberg 2021 Innovation Index

2021 Rank	2020 Rank	YoY Change	Economy	Total Score	R&D Intensity	Manufacturing Value-added	Productivity	High-tech Density	Tertiary Efficiency	Researcher Concentration	Patent Activity
1	2	+1	S. Korea	90.49	2	2	36	4	13	3	1
2	3	+1	Singapore	87.76	17	3	6	18	1	13	4
3	4	+1	Switzerland	87.60	3	5	7	11	15	4	18
4	1	-3	Germany	86.45	7	6	20	3	23	12	14
5	5	0	Sweden	86.39	4	21	12	6	7	7	21
6	8	+2	Denmark	86.12	8	17	3	8	22	2	23
7	6	-1	Israel	85.50	1	30	18	5	34	1	8
8	7	-1	Finland	84.86	11	12	17	13	14	10	10
9	13	+4	Netherlands	84.29	14	26	14	7	25	8	9
10	11	+1	Austria	83.93	6	9	15	23	16	9	15
11	9	-2	U.S.	83.59	9	24	5	1	47	32	2
12	12	0	Japan	82.86	5	7	37	10	36	18	11
13	10	-3	France	81.73	12	39	12	2	26	21	16
14	14	0	Belgium	80.75	10	23	16	15	43	14	13
15	17	+2	Norway	80.70	15	49	4	14	5	11	24
16	15	-1	China	79.56	13	20	45	9	17	39	3
17	16	-1	Ireland	79.41	35	1	2	12	42	17	39
18	18	0	U.K.	77.20	21	44	25	17	4	20	22
19	20	+1	Australia	76.81	20	55	8	16	10	31	7
20	19	-1	Italy	76.73	26	15	28	21	41	25	12
21	22	+1	Canada	75.98	22	35	21	25	37	22	5
22	21	-1	Slovenia	73.64	18	8	27	41	11	16	27

South Korea - Innovation Powerhouse

This is how South Korea can become a global innovation hub



31 Jan 2022
Saemoun Yoon
Community Lead, Technology Pioneers, World Economic Forum



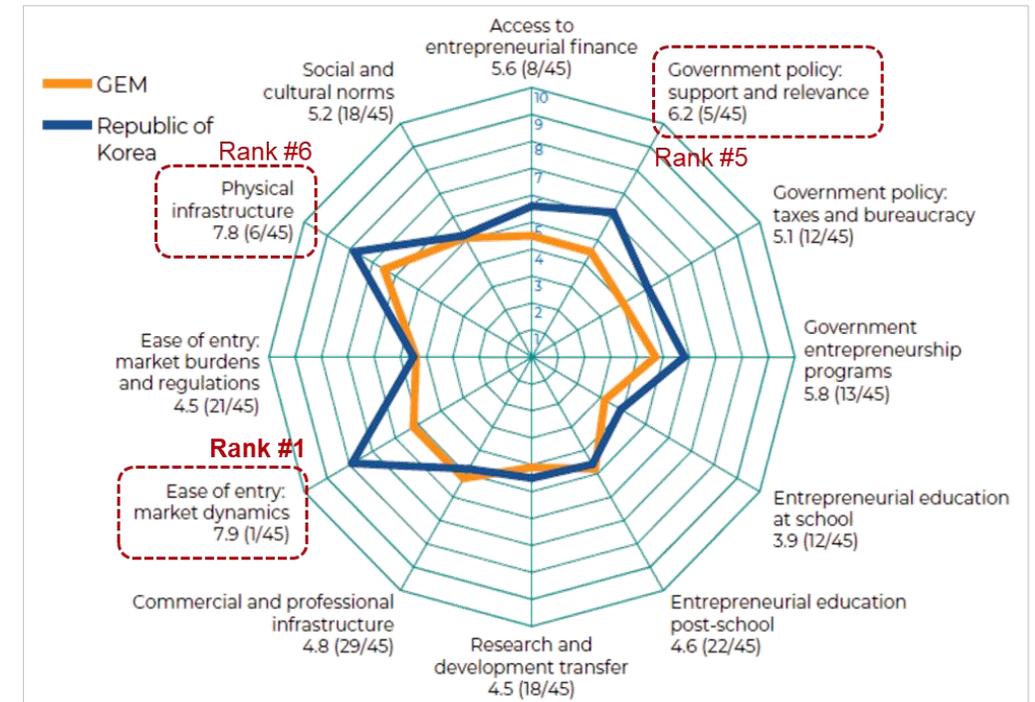
Key Numbers



Source : CB insights(2021), Crunchbase(Apr.2022), KISIED, K-Startup

Key Strength of Korean Entrepreneurial Ecosystem

- Ease of entry: market dynamics, Rank #1
- Government policy: support and relevance, Rank #5
- Physical infrastructure, Rank #6
- Traditional strength on entrepreneurship sector
– “Ease of entry : market dynamics, physical infrastructure”

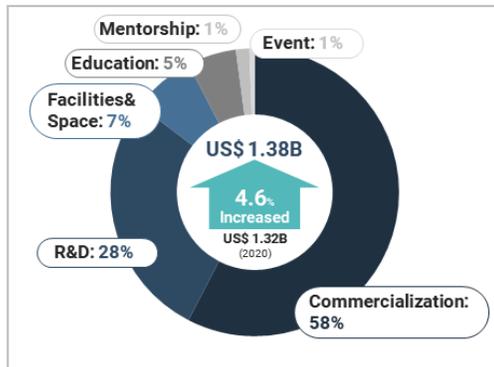


Source : Entrepreneurial Framework Conditions of Korea2020/21, GEM(2021)

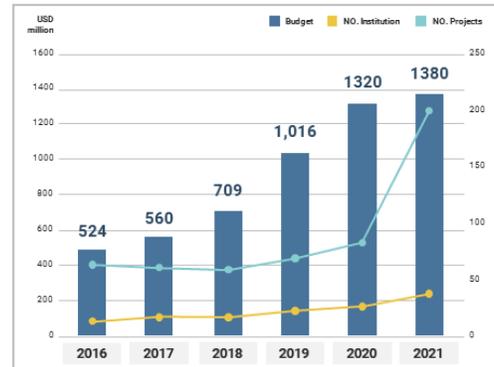
Government Support for Entrepreneurship

- Budgetary support for startups reached \$1.38 B in 2021
- 194+ programs for SMEs & startups from the 15 ministries & 17 local governments
- Commercialization(58%), R&D(28%), Facility & Space(7%) by support type

Year-on-year increase of Korean Government Support



194 Programs from 15 Ministries & 17 Local Governments



Budget scale by support type in Korea 2021

Source: Ministry of SMEs and Startups, <https://www.mss.go.kr>

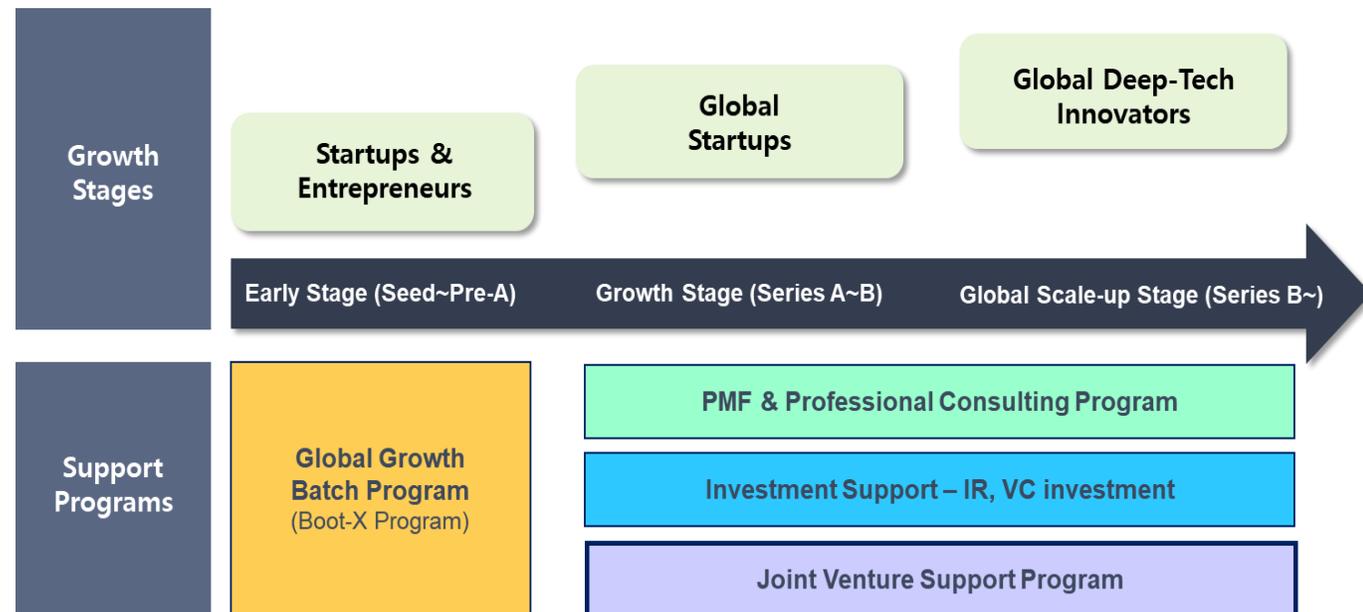
Category	Commercialization	R&D	Facility & Space	Education	Mentoring	Event	Total
Budget (USD million/%)	795.0 (57.6%)	382.4 (27.7%)	98.1 (7.1%)	75.2 (5.5%)	20.8 (1.5%)	8.1 (0.6%)	1,379.9 (100%)
Program (Number/%)	94 (48.5%)	6 (3.1%)	46 (23.7%)	15 (7.7%)	19 (9.8%)	14 (7.2%)	194 (100%)

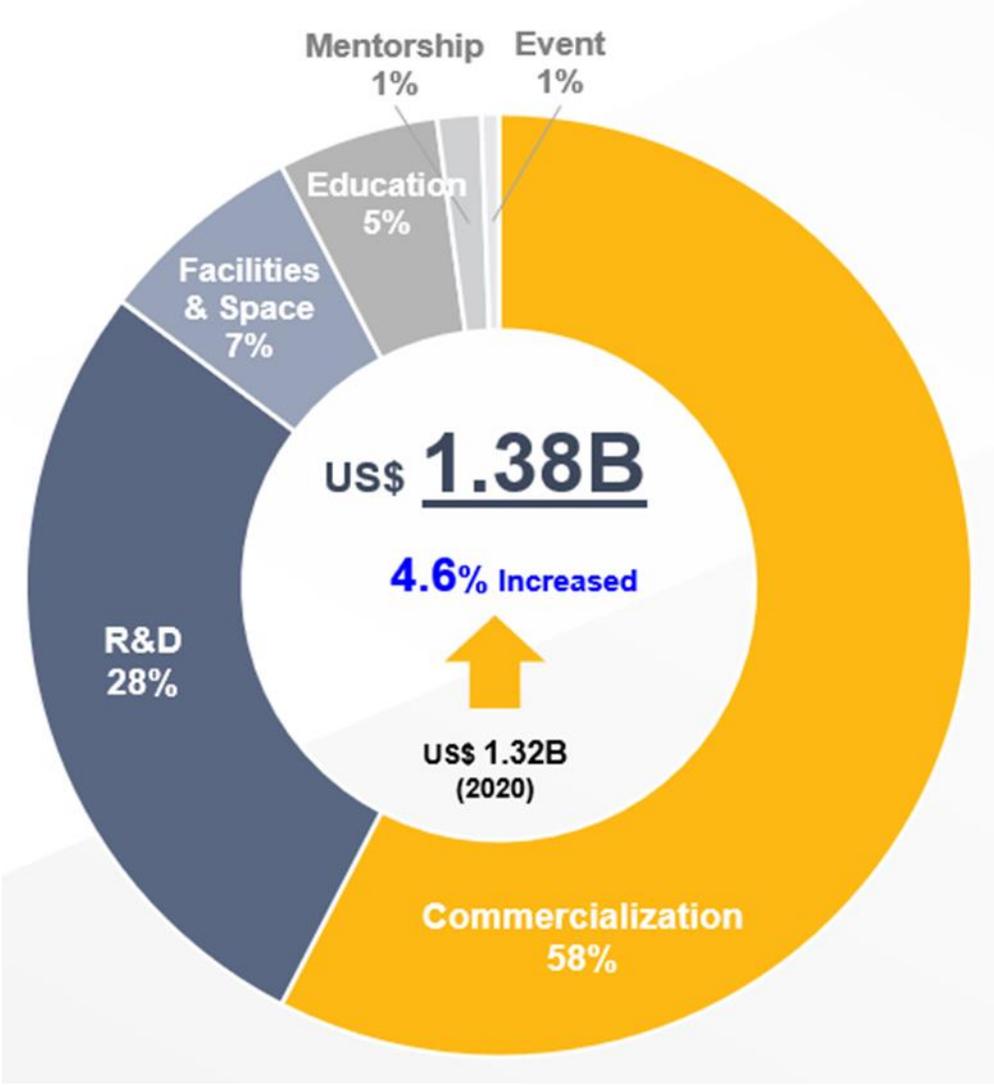
Source : Ministry of SMEs and Startups, <http://www.mss.go.kr>

Key Support Programs targeting DX-tech Startups of MSIT

- Programs that support digital startups in different stages are implemented by government agencies under the Ministry of Science and ICT
- Various programs range from early stage acceleration to scaling up, mentoring, consulting, and global market expansion

Key DX-tech Startup Promotion Programs by Growth Stages





Budget scale by support type in Korea 2021

Unit: USD million

Category	Commercial-ization	R&D	Facility & Space	Education	Mentoring	Event	Total
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Source: Ministry of SMEs and Startups, <https://www.mss.go.kr>

‘Digital New Deal’, a government roadmap for the growth of the **D-N-A (Data-Network-A.I.) Industry**

Ministry of Science and ICT has empowered Born2Global with the mandate to source, incubate, accelerate, and globalize deep-tech startups with the vision to find new growth engines for digital transformation.

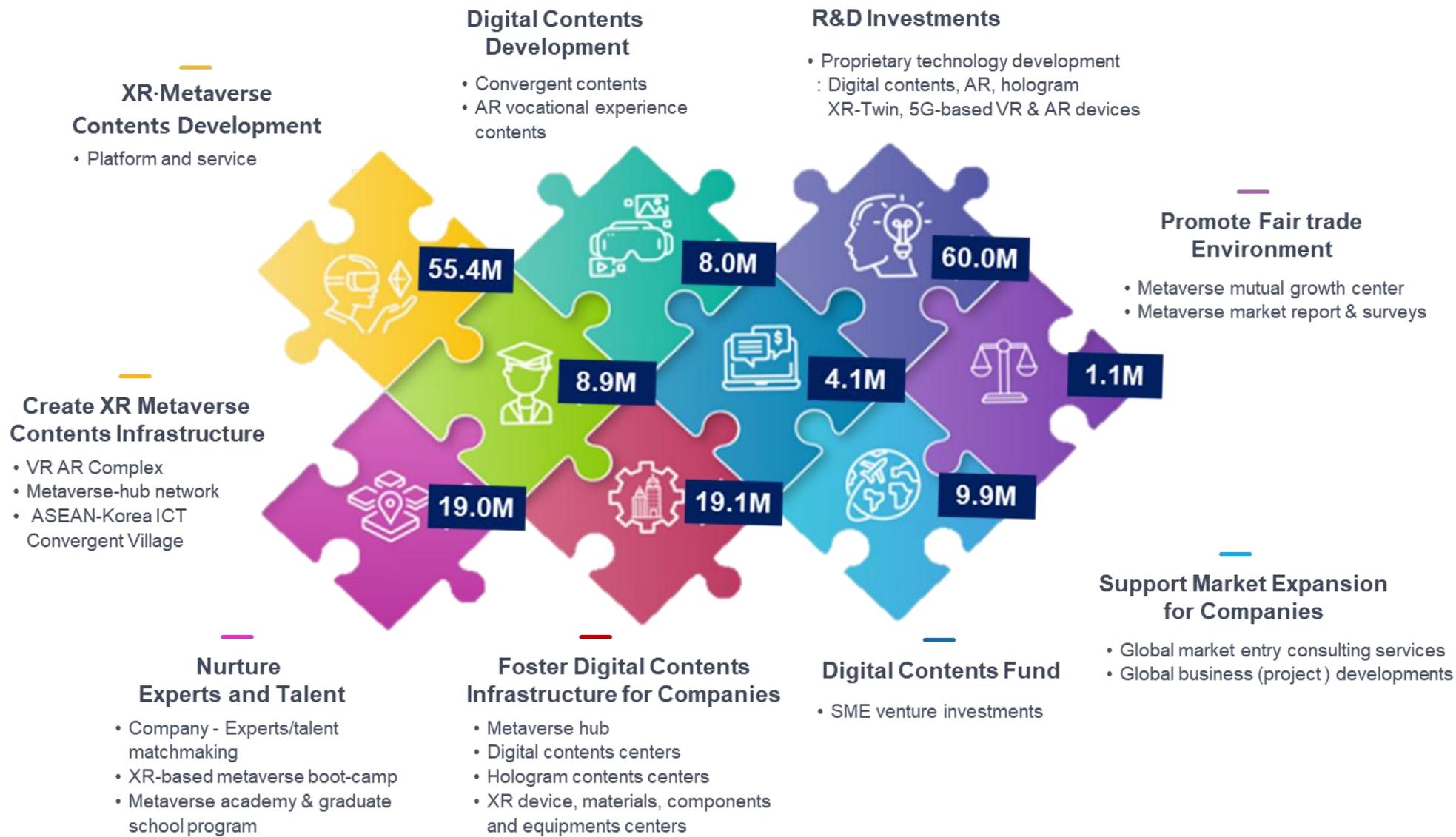
D Digital New Deal



- ✓ Improve the DNA Ecosystem
- ✓ Digitalize the Education Infrastructure
- ✓ Nurture Contactless Services
- ✓ Digitalize Social Overhead Capital (SOC)

D.N.A (Data-Network-A.I.) Ecosystem





• Source : Ministry of Science and ICT(2022), Unit(USD Million)

10 Years of Born2Global Centre

Since its' inception in September 2013, Born2Global is providing a one-stop support platform for innovative tech startups an array of services to aid startups' global market entry or expansion. Platform provides **consulting services, PMF (Product Market Fit) program, events, working spaces, and a community.**



Ministry of Science and ICT



Startup Campus in Pangyo Techno Valley



K-Global Startup Hub Space



Selection

Scheduled

- Evaluation on:
 - Market Readiness
 - Product Market Fit
 - Market Demands

1st Stage

2nd Stage

Rolling-basis

- Based on:
 - Market Demands
 - Partnership Demands
 - Tech Sourcing/ Matching Needs

Consulting and Capacity Building

Professional Consulting

In-house

Outhouse



Legal



Patent



Accounting



Investment



Marketing



Channel Partners

Product-Market-Fit (PMF)

- Curated Consultations on
 - Identification of Ideal Customer Profile & Value Proposition
 - Analysis on Feedback from User, Potential Partner/Customer
 - Improvement/Pivot of Business Model/ Market Entry Strategy

Capacity Building

- Market Acceleration Program
- Seminars / Workshops
- Meet-ups

Startup Campus

- Working Space
- R&DB Support
- On-site Consulting

Consulting / Matching

Startup Selection per Target Market

Global Expansion

Global IR

- Fund-raising Opportunities with VCs and Global Funds

Tech Matching

- Open Innovation with MNCs
- MDB/ODA Project Sourcing
- On-site Market Validation via PoC / Pilot Opportunities

Joint Venture Support

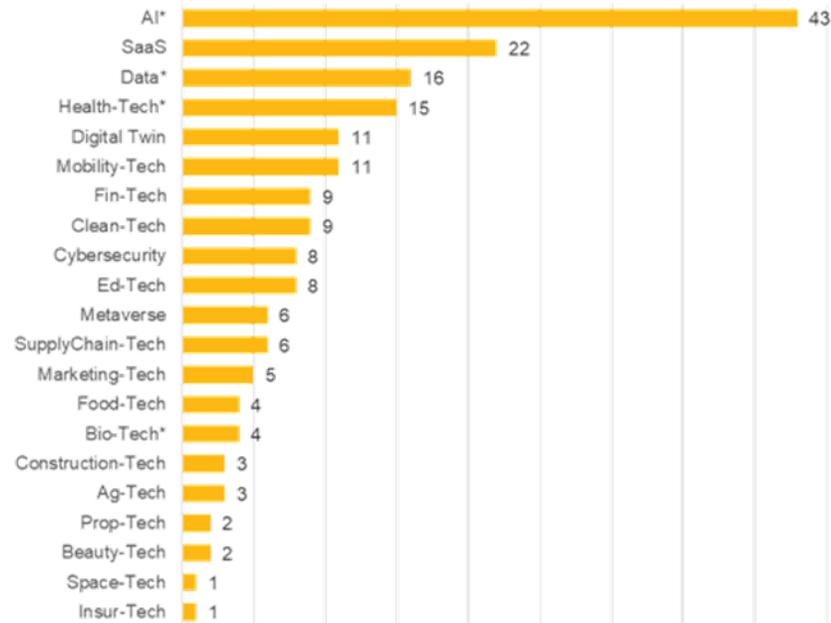
- Support Establishment and Scale-up of Bi-national JVs
- Consulting and Relevant Expenses (Travel, Rent)

On-site PMF Support

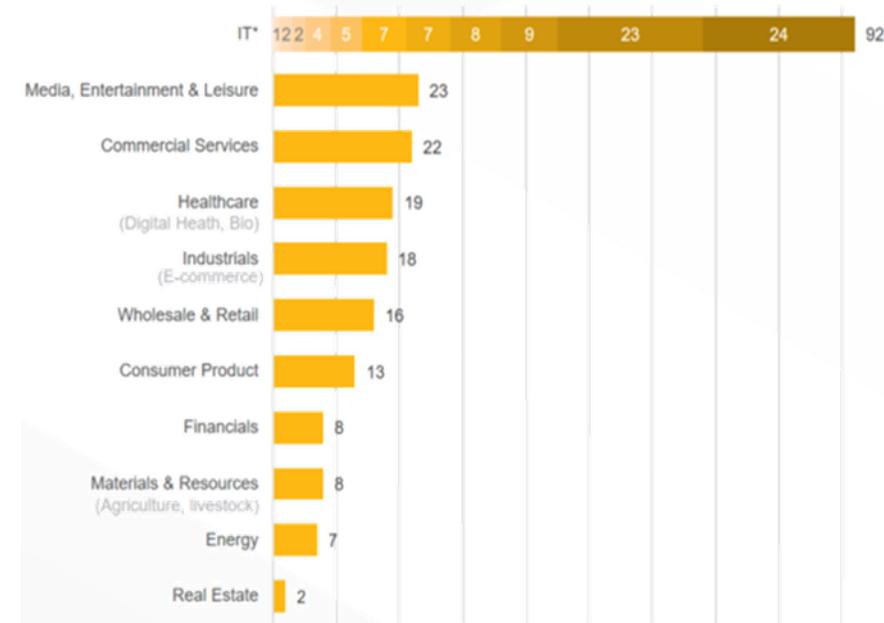
- Tailored Customer/Partner Matching & VC/Investor Matching



Tech Areas



Industry Areas



* AI : AI / Deep Learning / Machine Learning, * Data : Data labeling, Data processing, Data analysis & visualization

* Health-Tech : Application of organized knowledge and skills in the form of devices, medicines, vaccines, procedures, and systems developed to solve a health problem and improve quality of lives. This includes pharmaceuticals, devices, procedures, and organizational systems used in the healthcare industry, as well as computer-supported information systems.

* Bio-Tech : The integration of natural sciences and engineering sciences in order to achieve the application of organisms, cells, parts thereof and molecular analogues for products and services

* IT Industry : 1) Business/Productivity Software, 2) Vertical Market Software, 3) Entertainment Software, 4) Financial Software, 5) Multimedia and Design Software, 6) Network Management Software, 7) Automation/Workflow Software, 8) Software Development Applications, 9) Social/Platform Software, 10) Communication Software, 11) Semiconductors

Global Joint Venture Support Program

Supports overseas expansion of DNA(Data, Network, AI) convergence products and services through the formation of joint ventures between Korean and global startups

Discover - Explore Global JV Partnerships

- Global JV Partnerships created including US, LAC, ASEAN, OSEANIA countries (10 partnerships)



Global JV Establishments - Operation Support

- Legal · accounting · patent · marketing related business consulting services based on needs (333 consulting cases)
- JV Strategy consulting and market fit consulting (273 cases)
- Travel expenses, local space rent expenses support (5 cases)



Global JV Creation

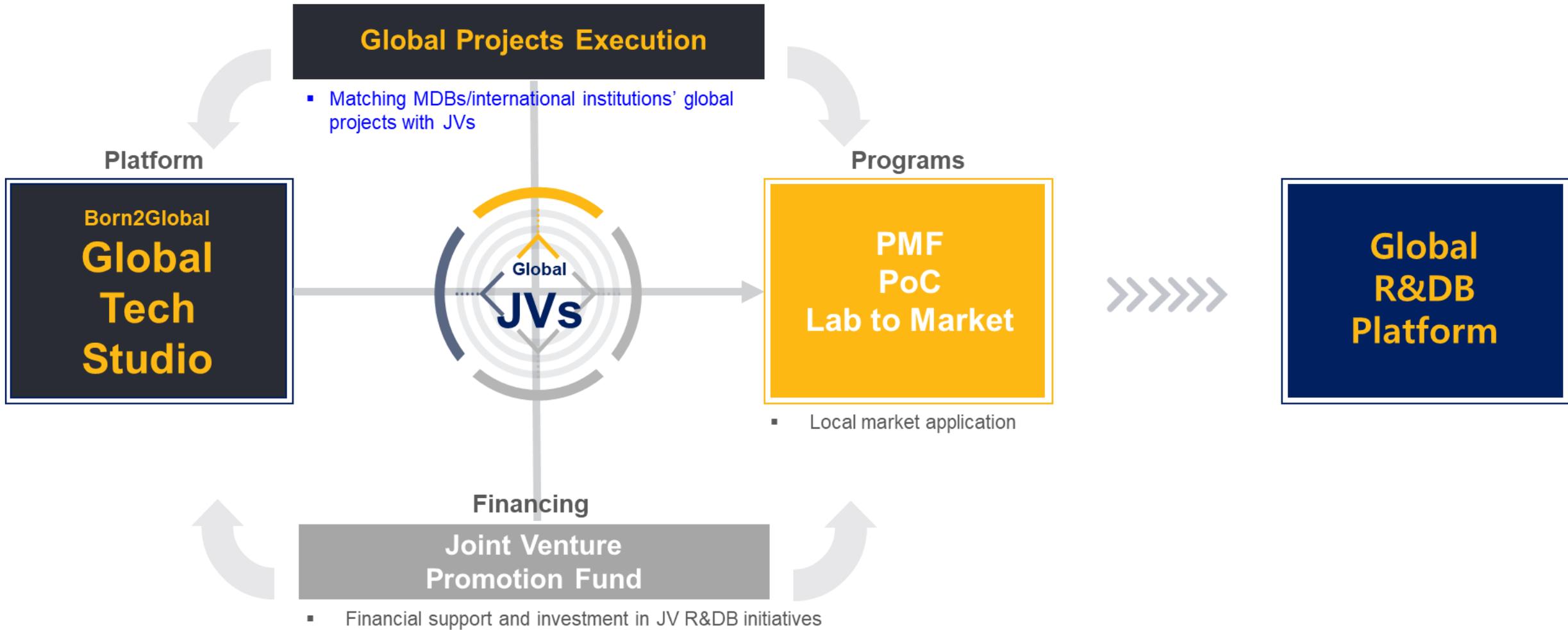
Global JV created in countries including Japan, ASEAN, Europe, Australia (11 JVs)

Additional JV expected in 1st half of 2022 (1 JV)

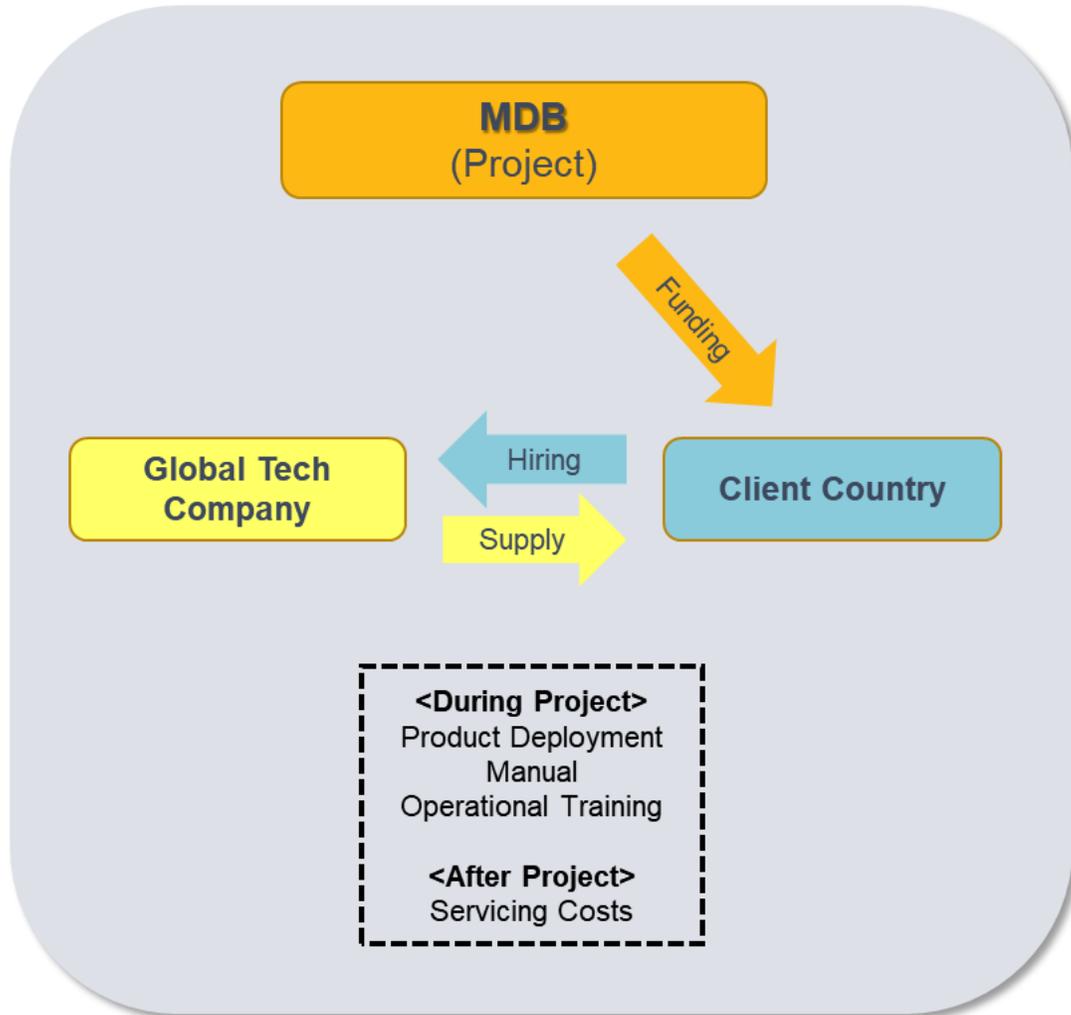


Expansion of JV Model

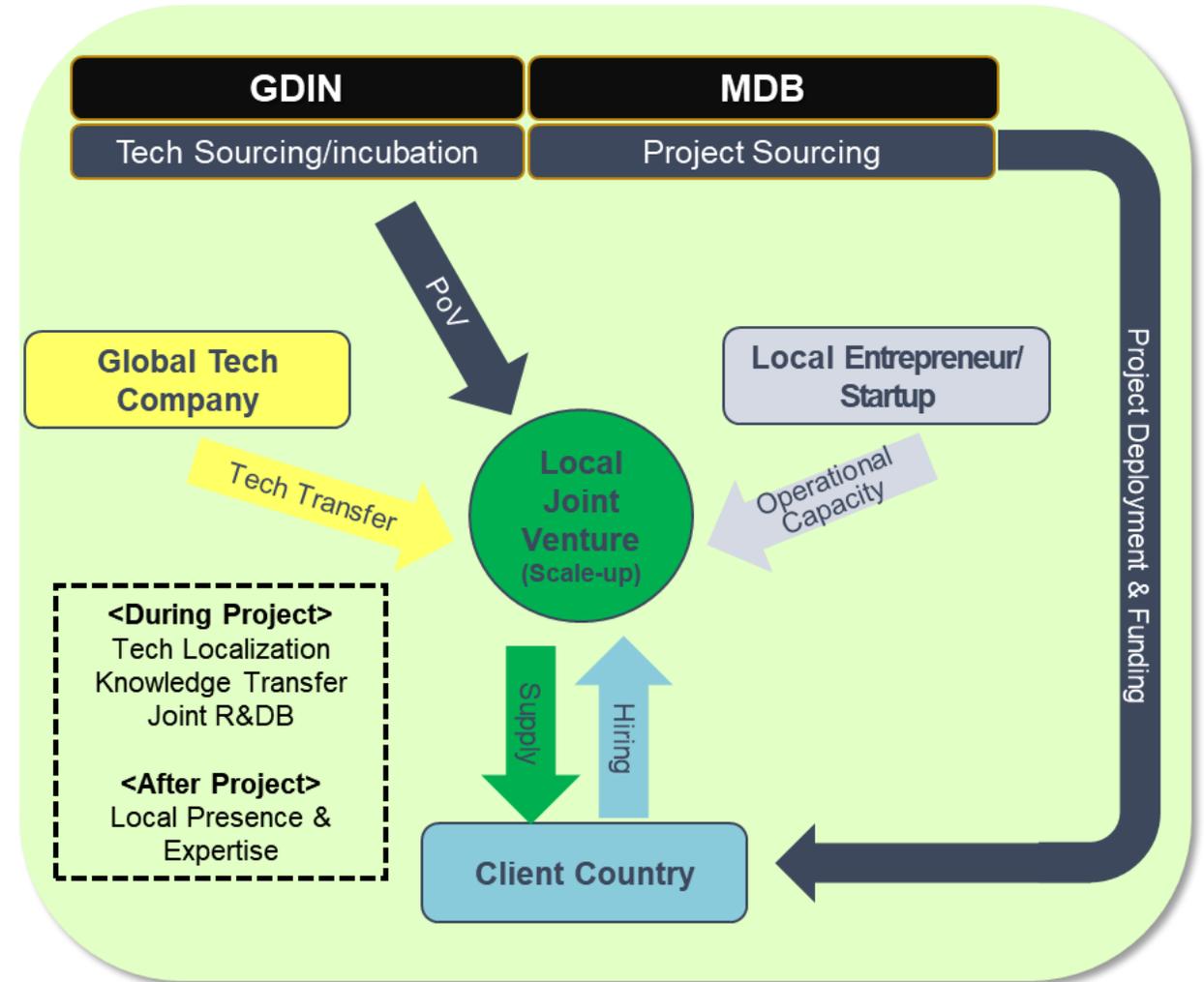
Global JV success case benchmarking conference for promotion



Conventional MDB Project Structure



Collaborative R&DB Project Structure



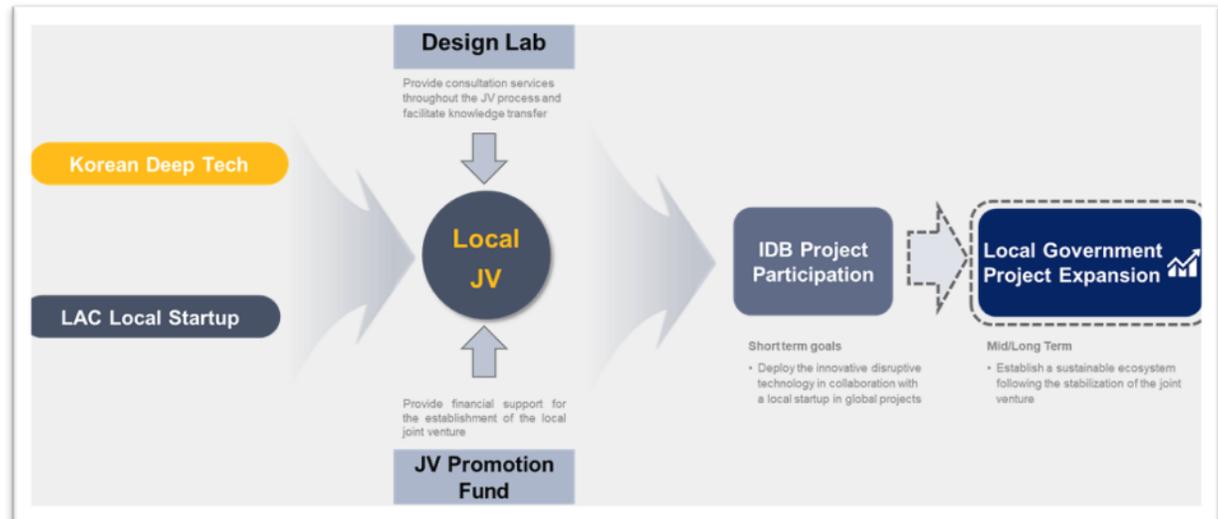
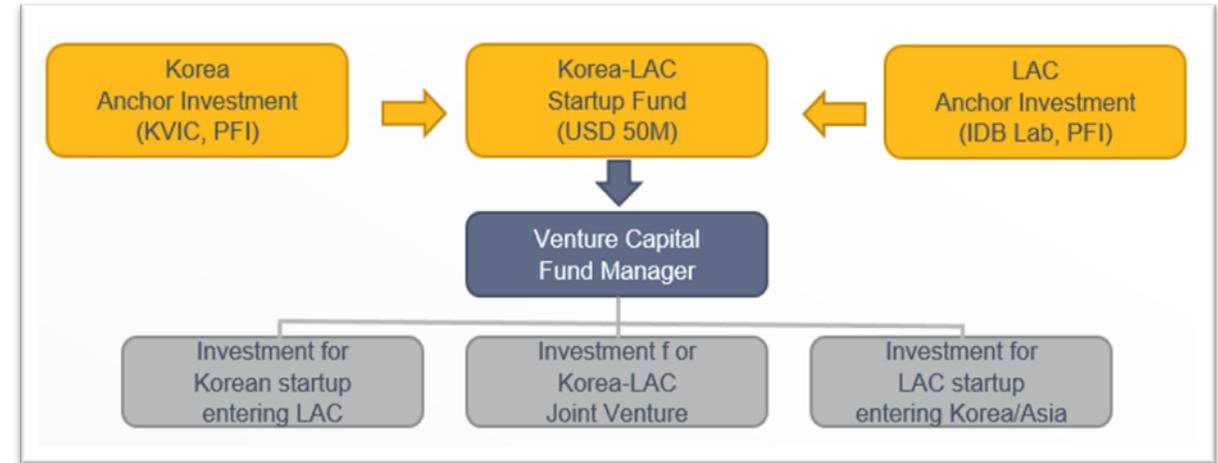
Korea-LAC Startup Fund

- Korea-LAC cross-regional startup investment opportunities.
- Korea-LAC startup joint ventures business development.



- Prototypes for Early Stage Experimentation in Deep Tech.
- Catalyzing Partnerships through 'Korea-IDB Innovation Day'.
- Deep Tech Startup Korea-LAC Network through 'K-Startup Grand Challenge' and 'Demo-day'.

Prototype TC



Bridging Regional Gaps in Deep Tech

Shopl & Company x Advance - Adelanta Tu Pago

COLOMBIA



Fintech x SaaS

Advance, a fintech startup aiming to help employees receive their salaries in advance and to financially educate their users, and Shopl & Company, an innovative staff management platform, intend to integrate both their solutions together into a one-stop platform, leveraging their technological differences, as well as their diverse clientele.

Coconut Silo x Avancargo

ARGENTINA



Logistics x AI x Big Data

Both Avancargo and Coconut Silo hold different solutions to solving the same logistical problems in the freight transportation industry. Together, they will tackle the existing complications, with Coconut Silo providing APIs and technological support in order to enhance Avancargo's features.

VIRNECT x Proximity

PERU



Safety x AR/VR x Digital Twin

Proximity is a Peruvian startup utilizing AR/VR technology to provide training to industrial workers before they are dispatched to conduct their jobs onsite. Implementing Virnect's AR and digital twin technologies, together they will focus on not only improving the training modules but also allow workers to improve the efficiency and quality of their onsite remote works.

Riiid x Maestrik

MEXICO



Edtech x AI

Together, they will create a personalized English course for a new revolutionary English-learning platform, powered by Riiid's AI technology, to help users learn English faster, better, and economically, so that those in the lower socioeconomic bracket can also be given the opportunity to learn a new language effectively and efficiently.

Dot Incorporation x Wheel the World

CHILE



Tourism x Accessibility

Using Dot's technology for the visually-impaired and Wheel The World's Accessibility Mapping System, they will collaboratively develop a Touristic Product that will allow travelers with visual disabilities to get a smooth and touchless travel experience with all the accurate accessibility information.

AR Remote Solutions



VIRNECT

- Augmented reality telepresence tool for assisting personnel remotely during tasks.
- Digital Twin: Industrial site digitalized in 3D and monitored in real-time.



VALUE PROPOSITION

Eliminate the need for workers to move to other locations for training and maintenance in high-risk industries, and improve worker safety, efficiency and skill level, while helping companies reduce costs.

- Virtual reality training modules for learning safety procedures in high-risk tasks.
- Service platform for streamlined deployment and management.

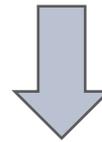


PROXIMITY

VR Training Software

Design Lab

Provide consultation services throughout the JV process and facilitate knowledge transfer



Integrated XR technology

Local JV



Provide financial support for the establishment of the local joint venture

JV Promotion Fund

MDB Project Participation

Short term goals

- Deploy the innovative impact technology in collaboration with a local startup in global projects

Regional Project Expansion

Mid/Long term goals

- Establish a sustainable ecosystem following the stabilization of the joint venture



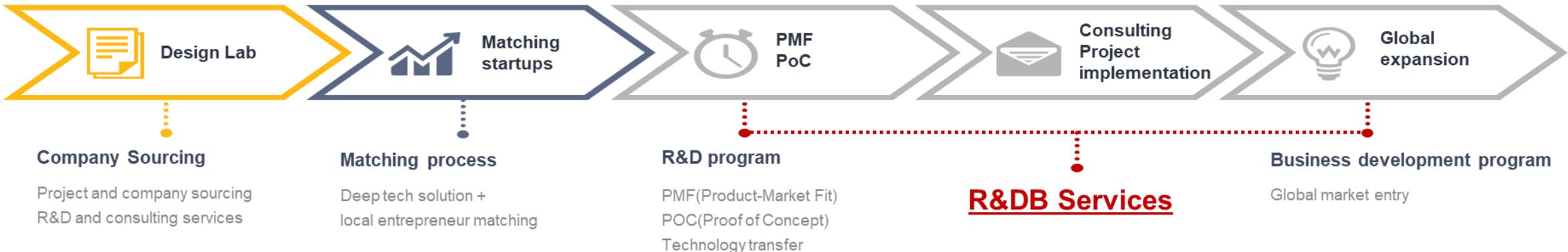
Deep Tech Companies in donor countries

- High End Innovative Deep Technology
- Climate related technology (5G, AI, IoT, Big Data, Cloud, Blockchain)
- Global channel for localization of technology
- Fast Track tech adoption and application

Local Industries in developing countries

- Localization and operational capacity
- Local industry and context specific application (Energy supply and distribution, renewable energy, climate adaptation, transportation system, etc.)
- Promotion of sustainable entrepreneurship ecosystem

Joint Venture
local enabler
global collaboration
sustainable impact





Free Digital Trade Agreement (Feasibility Study)

- Enabling & strengthening regional data network as a backbone for digital transformation



Digital Hub Strategy Setting and Implementation

- Region-wide smart database hubs as an enabler for digital industries & digital economy



Transforming Conventional Cities into Cognitive Cities

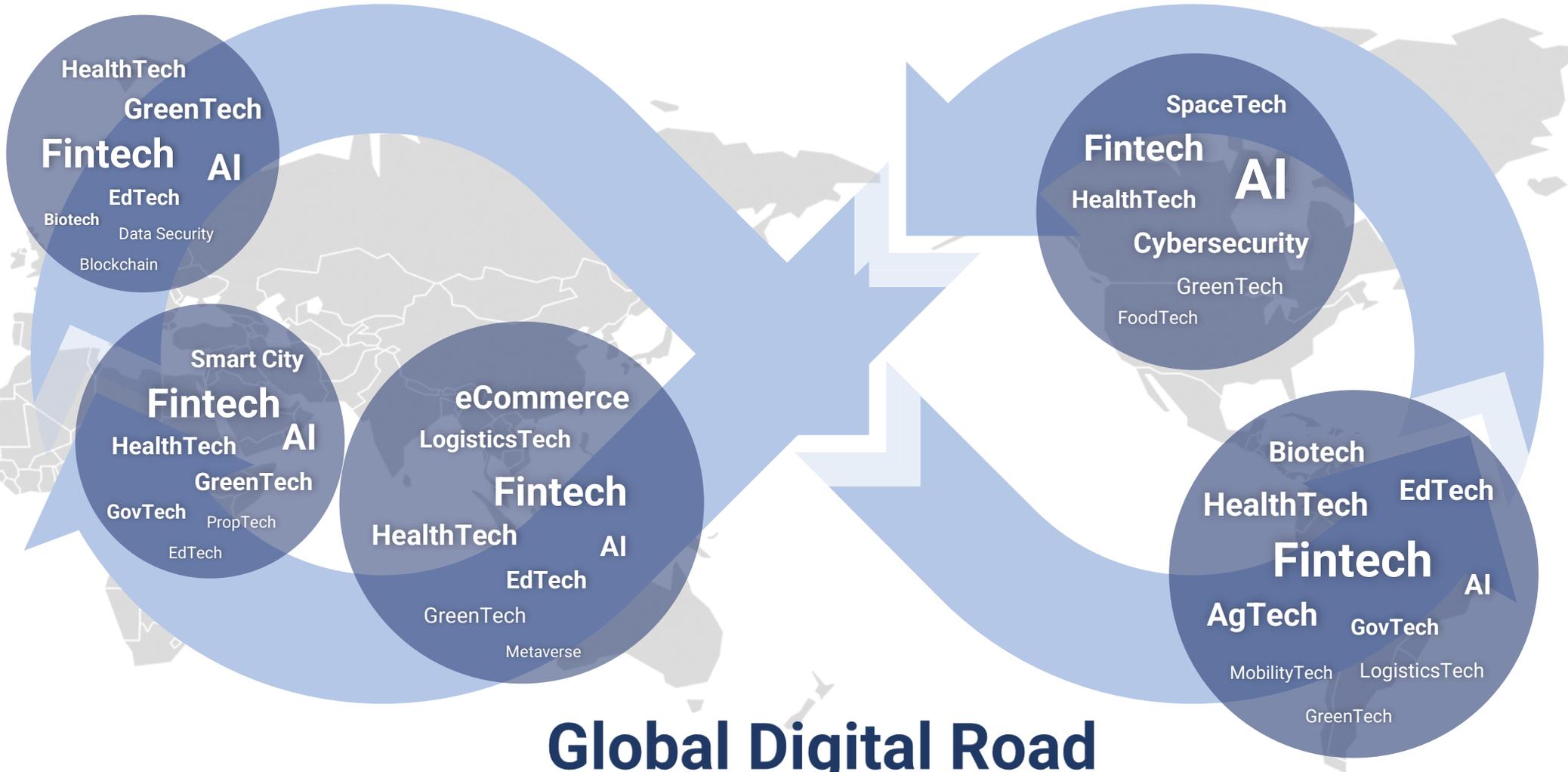
- Cities that integrate remote diagnostics, telemedicine, social safety, smart education



Digital Platforms for Transparent Governance and Participation

- Offering public services via a secure and digital platform

Vision: Global Digital Road



Global Digital Road

Digital technology project-matching around the world

Technologies

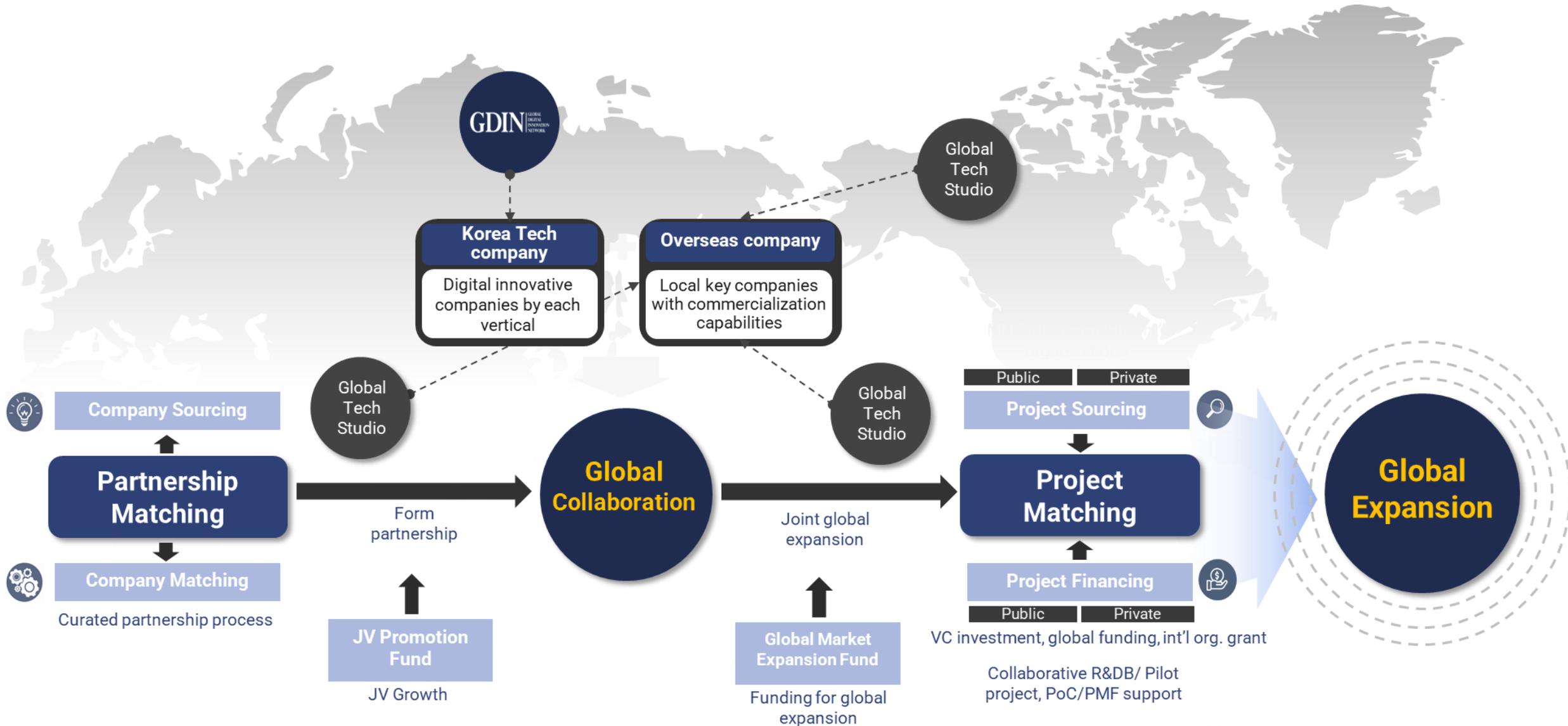
- AI
- Health-tech
- Green-tech
- Mobility-tech
- Fin-tech
- Ag-tech
- Prop-tech
- Ed-tech
- Marketing-tech
- Bio-tech
- Food-tech
- Logistics-tech
- Space-tech
- Cybersecurity
- VR/AR
- Metaverse
- Gov-tech

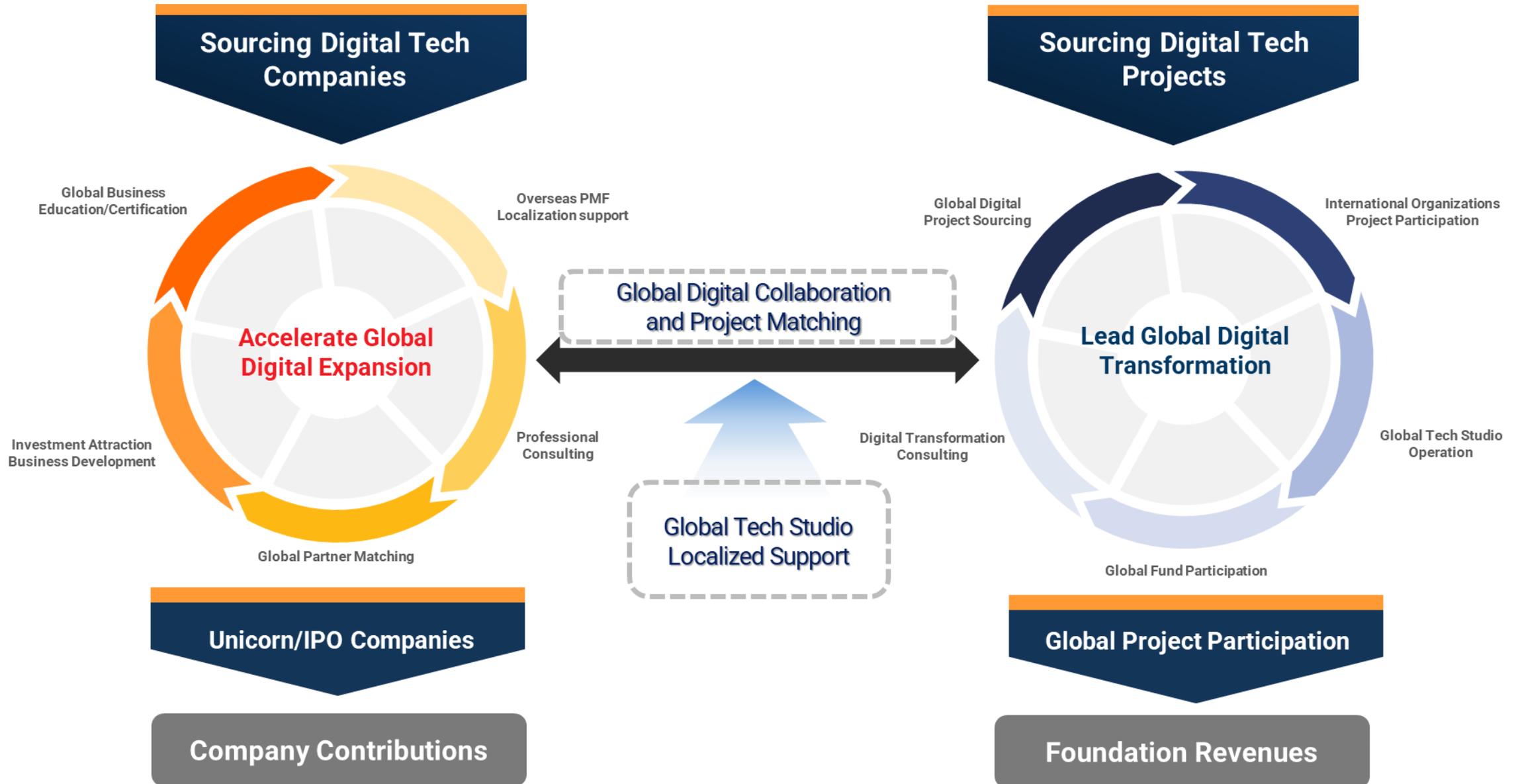
Enablers: Global Tech Studios & Partners

 **Global Tech Studio**
 **50 in 5 Years**

Tech Matching Partner
 **100+ in 5 Years**







[GLOBAL] Empowering Innovation Beyond Borders

[DIGITAL] Pioneering Tomorrow's Technology

[INNOVATION] Leading Breakthrough Solutions

[NETWORK] Bridging Projects & Technologies worldwide