

An AI Powerhouse Taking the Lead on Innovation Is Opened Up by the National IT Industry Promotion Agency

The era of artificial intelligence(AI) has arrived. Major countries around the globe are picking up speed to take the lead on AI, a technology key to the Fourth Industrial Revolution. South Korea is no exception. The country is directing all its energy to grow into an AI powerhouse moving beyond an IT powerhouse.

The National IT Industry Promotion Agency(NIPA) is focusing its efforts on identifying AI convergence projects to help all industries to take advantage of AI with the end goal of creating future growth engines for the country. The agency's focus areas also include fostering world-class AI and software, identifying new industrial models that can lead the global markets, and building necessary infrastructures such as highly skilled manpower and regulatory improvement. NIPA also provides full supports for ICT startups engaging in the areas of data, network, and AI (D.N.A) to enter into the global markets including the "New Southern" and "New Northern" countries, and to grow into a high-growth company.

NIPA will take the initiative in creating changes that the public can feel in their everyday life and building a country that is strong in AI and software and leads the era of the Fourth Industrial Revolution.





CONTENTS

04 New Opportunities in the Software Industry

05 Vision, Mission, Strategic Initiatives

06 NIPA's Roles

- 08 Key Areas of Business
1. Promoting intelligence across all industries through AI
 2. Creating new markets through software convergence
 3. Materializing a smart life enabled by VR-AR
 4. Developing an ecosystem to support global expansion of ICT and software

16 Outposts for Global Expansion

18 History

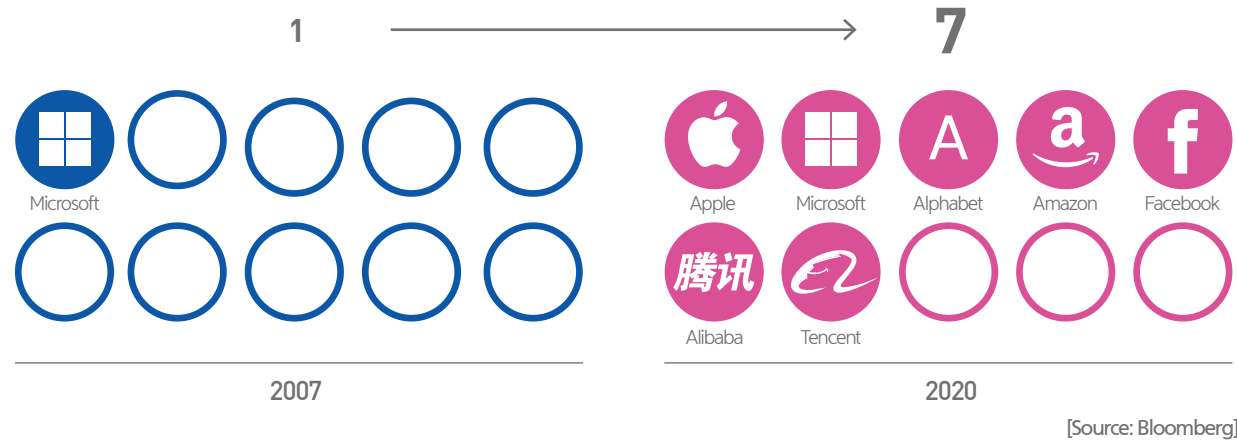
20 Organization

New Opportunities in the Software Industry

The convergence of software and AI changes the world.

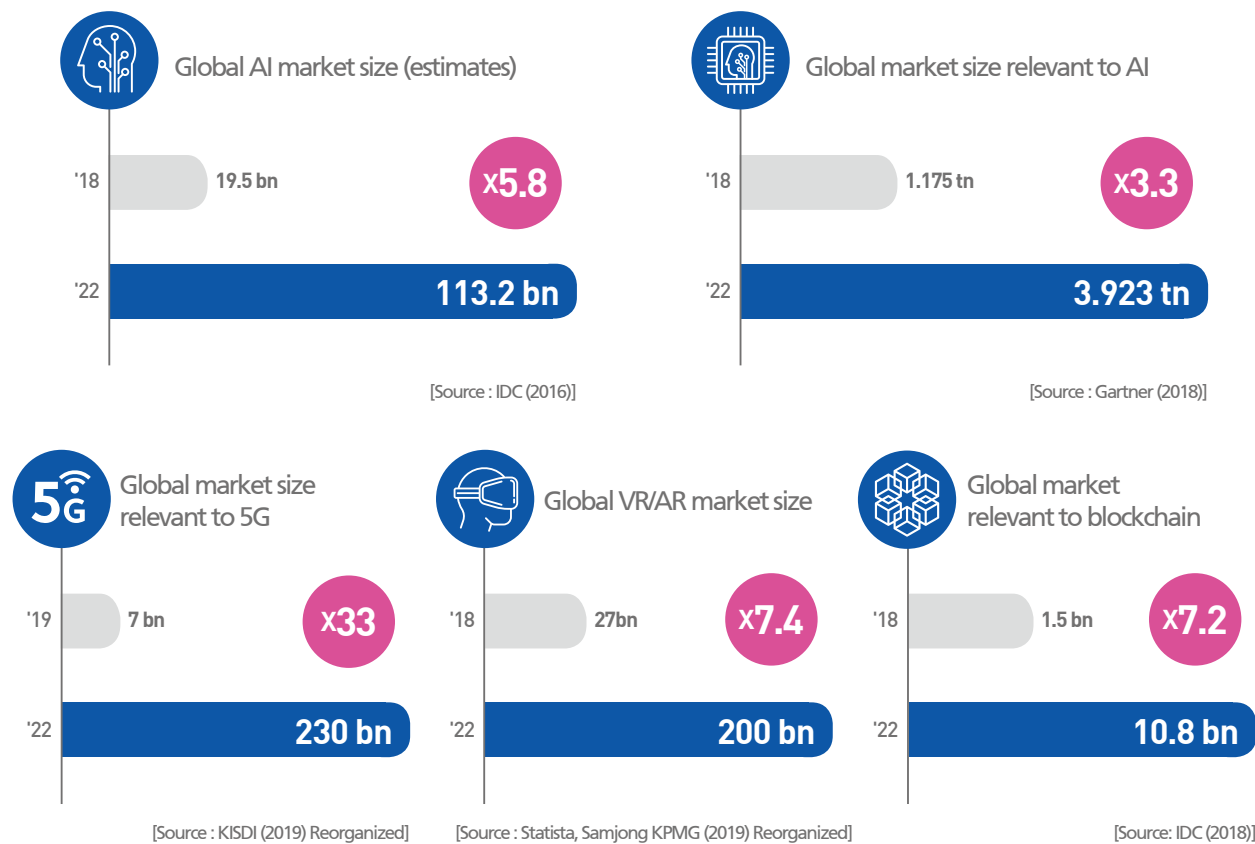
Software companies leading global markets

No. of software firms in global top 10, by market cap



Rapid growth of new software markets

Unit : USD



Vision / Mission / Strategic Initiatives

NIPA - setting milestones in South Korea's ICT industry

MISSION

Leading innovative growth for the nation and the economy through development of ICT and new software industries

VISION

A specialized agency pioneering South Korea's ICT innovations for the future

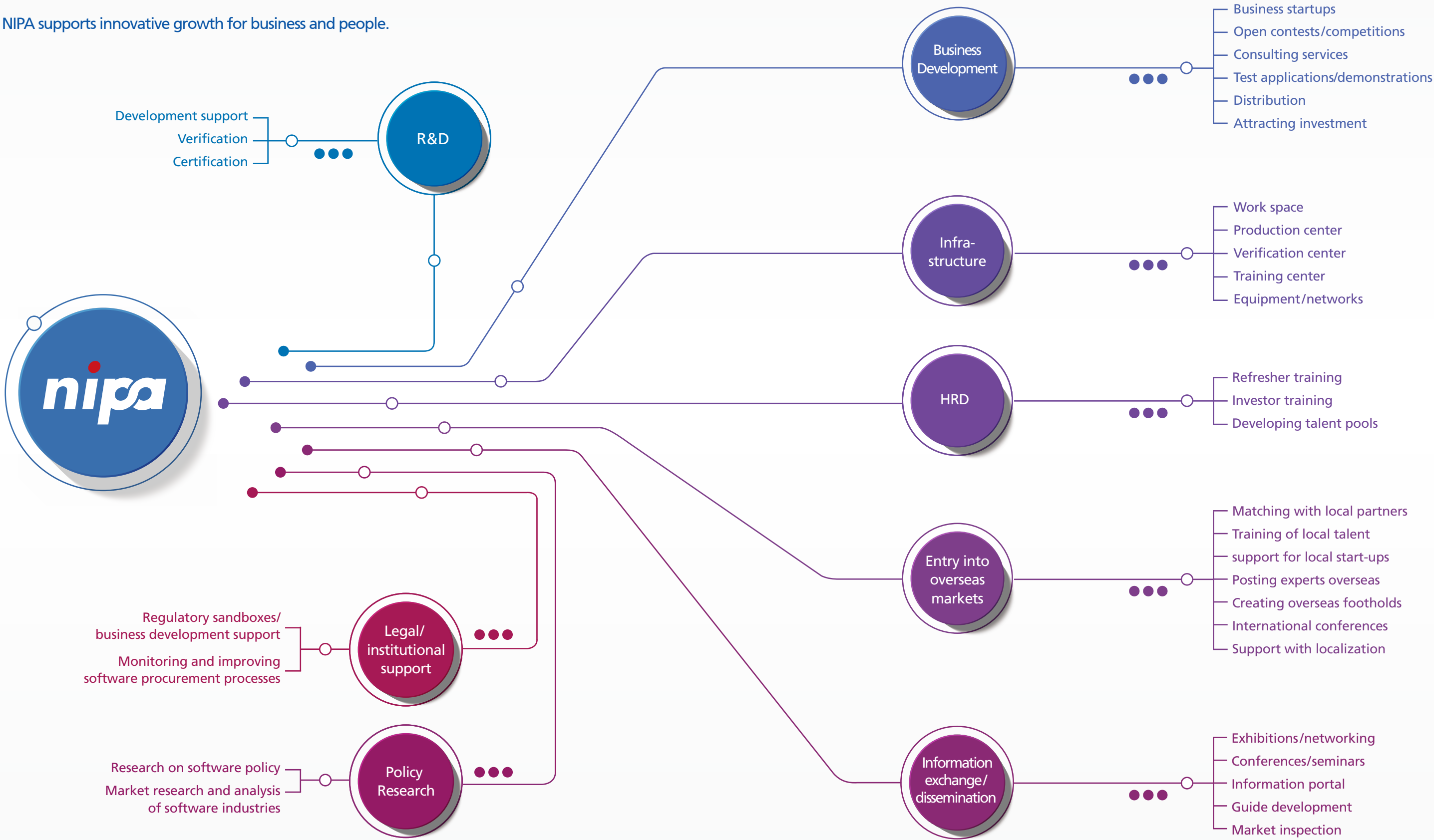


CORE VALUES



NIPA's Roles

NIPA supports innovative growth for business and people.



Promoting intelligence across all industries through AI

01

AI - the key driver of the Fourth Industrial Revolution

AI technology is moving beyond changing everyday life. It is transforming the industrial landscape.

NIPA works to apply the data, network, and AI (D.N.A) technology to the nation's existing competitive industries and promising future industries to turn them into growth engines. It also focuses on building infrastructure for the AI industry to allow all the other industries to grow together on the back of AI.



Diffusing AI technology (AI+X Project)

- Applying AI technology across major industries and the areas close to the everyday life of the public, including manufacturing, health, and AI-based tracking and identification solutions
- Fostering AI companies in the industrial convergence sector (manufacturing, energy, connected car, etc) and the public service and safety sector (national defense, weather forecasting, customs clearance, etc.)
- Identifying the promising areas for AI chips such as self-driving cars and smart manufacturing, and promoting +AI applications in the specialized regional industries

Creating an AI cluster in Gwangju

- Providing a temporary base camp and demonstration equipment for R&D companies
- Selecting promising AI startups, providing them with demonstration infrastructure, startup mentoring services, and other consulting services
- Identifying and supporting AI-based energy, automobile, and elder-friendly healthcare projects

Building an infrastructure for AI-accelerated growth

- Offering companies a high-performance computing environment, and identifying high-potential AI algorithm development firms and supporting their commercialization
- Matching AI suppliers and consumers for securing learning data

Software - a breakthrough for the South Korean economy

Global ICT markets are led by D.N.A and software represented by AI and 5G.

NIPA creates new markets by promoting the convergence of D.N.A and software such as AI, 5G, IoT, and cloud computing into the traditional manufacturing sector and promising future industries. It also works to support the accelerated growth of all industries by building an infrastructure for the AI industry.



Demonstrating and diffusing AI-based digital healthcare

- Raising the diagnostic accuracy of "Dr. Answer" through demonstrations from home and abroad
- Supplying cloud-based hospital information systems (P-HIS) to primary, secondary, and tertiary hospitals in Korea
- Pursuing a sophisticated emergency medical services system based on 5G and AI

Strengthening the shipbuilding industry's competitiveness through the convergence of ICT and software

- Pushing for "ICT Convergence Industry 4.0⁵ (shipbuilding and marine engineering)" to build performance quality verification equipment such as to track and monitor materials and to promote an intelligent design
- Promoting the "ICT Convergence Center for Shipbuilding & Marine Engineering" process simulator, and intelligent design verification

Identifying and demonstrating new services based on blockchain and digital twin

- Supporting the technical verification of blockchain-based service models for finance, medicine, etc.
- Demonstrating a real-time safety management system based on 5G and digital twin* against public facilities owned by 5 local governments

* Building an advanced safety management system utilizing 3D modeling and visualization, AI-based data analysis, etc.

Raising specialized regional industries' competitiveness for software convergence

- Increasing software convergence clusters* to support specialized regional industries' ICT convergence
- Diffusing software services based on SOS-Lab* to support autonomous solutions to local community issues

* Software convergence clusters: Daejeon (national defense /smart robots), Gwangju & Jeonnam(energy), Jeonbuk(agricultural biotechnology), Busan(smart logistics), Gyeongnam(machinery), Gyeongbuk(mobility), Ulsan(eco-friendly self-operated vessels), Chungnam (convergent display), Incheon(bio)

* SOS(Solution in Our Society)-Lab: A lab to solve community issues by using software technology to connect the opinions voiced by the members of the community to the matching solutions

Facilitating a paradigm shift in industry and ways of life

With the proliferation of AI and 5G services, explosive growth is expected in the demand for digital content both in our daily lives and industry sectors.

NIPA builds digital life platforms leveraging the content enabled by new technologies such as VR·AR and 5G. It also identifies and secures killer content for 5G services as part of its endeavor to create innovations in our industry and life.



Diffusing digital life services

- Creating new domestic markets utilizing VR·AR by applying immersive content across different industries and public service sectors (industrial training, national defense, education, health, and welfare)
- Building a digital shopping platform* to innovate online life patterns that are closely related to people's life (online shopping)

* Applying VR·AR, AI, etc. to on- and off-line distribution platforms to provide virtual shopping / fitting and AI recommendation services

Fostering 5G killer content

- Supporting the development of 5G-based killer content such as CG-based related content and smart content
- Assisting global market entry of convergent content based on state-of-the-art ICT technologies such as VR·AR and 5G
- Operating one of Asia's biggest infrastructures to manufacture 3D immersive content based on 5G

Developing an ecosystem to support global expansion of ICT and software

04

Giving wings to companies entering global markets

NIPA builds a global network to help innovative, homegrown startups launch in Korea and abroad at the same time. It also takes the initiative in creating an ecosystem wanted by the market such as by nurturing AI and software talents and establishing global policies and strategies.



Supporting ICT startups, their growth, and overseas expansion

- Identifying and nurturing high-potential startups and creating a startup ecosystem
- Selecting and supporting the "SW High Growth Club 200" firms focusing on the key D.N.A areas
- Assisting global expansion of ICT companies (software localization, business partnership, and marketing) and operating overseas bases

Nurturing D.N.A talents

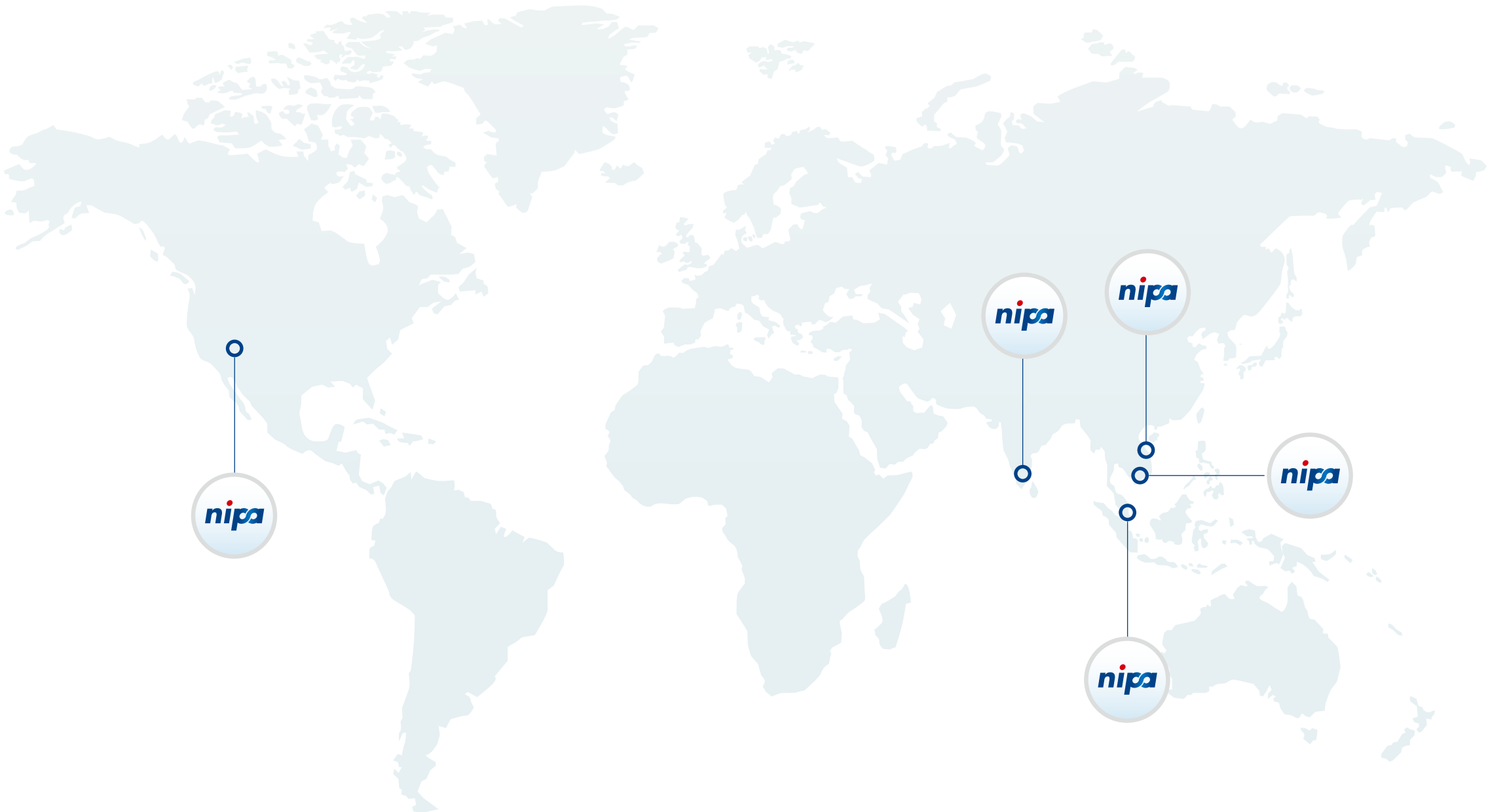
- Fostering talents in the areas of new ICT and software technology represented by AI, blockchain, open source software, cloud computing, and VR-AR
- Nurturing outstanding global software talents locally and connecting them to domestic software companies

Operating regulatory sandboxes

- Identifying regulatory sandbox projects having a far-reaching impact on the new industries such as AI and 5G and supporting market creation
- Reinforcing the follow-up for the commercialization of a regulatory sandbox project and supporting an early and soft landing in the market

Outposts for Global Market Entry of ICT Companies

NIPA supports ICT and software SMEs seeking to enter global markets through one-stop services for finding and connecting local partners, marketing, and providing office space with each branch acting as a reliable resource in its respective market.



KIC Silicon Valley



3003 N 1st St, San Jose, CA 95134, USA

- Helping small technology companies with globalization/localization, and assisting their entry into the US market.
- Providing global personnel development programs.
- kicsv@kicsv.org, +1-408-519-5085

Korea-India Software Cooperation Center



#2780 Orion Building, Bengaluru-560037, Karnataka, India

- Year-round startup support programs.
- Customized business matching services, such as start-up training and investor searches.
- india@nipa.kr, +82-070-4686-3161

Korea IT Cooperation Center, Singapore



4F, AXA Tower, 8 Shenton way, Singapore

- Providing office Space, legal and accounting consultation regarding localization, business infrastructure for (prospective) firms entering ASEAN markets
- Assistance with creating local business opportunities through specialized programs, such as K-solution fair, Sales lab etc.
- kicc.singapore@nipa.kr, +65-6221-7380

Korea IT Cooperation Center, Hanoi



Keangnam Hanoi Landmark Tower 25th Fl, Plot E6, Pham Hung Road, Cau Giay District, Hanoi, Vietnam

- Providing business infrastructure for (prospective) firms entering Vietnam, including office space and, consultations regarding localization
- Consulting/marketing assistance with Korea-Vietnam ICT exchange meetings
- kicchanoi@nipa.kr, +84-24-7300-0671

Korea IT Cooperation Center, Ho Chi Minh



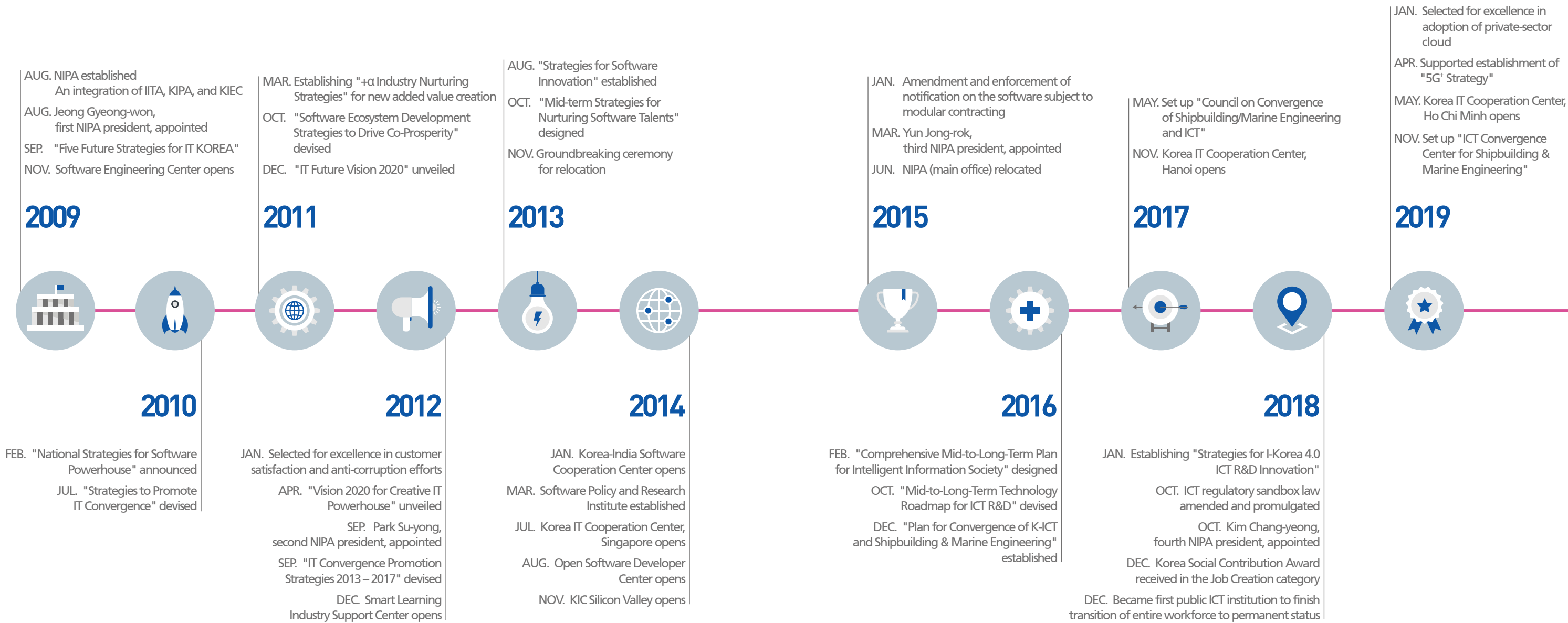
No.135, Hai Ba Trung Street, Ben Nghe ward, District 1, Ho Chi Minh City

- Providing business infrastructure for (prospective) firms entering Vietnam, such as office space, legal and accounting consultation for localization.
- Assistance with creating local business opportunities through specialized programs on HRD, local marketing, etc.
- hcmc@nipa.kr, +84-028-3520-8135

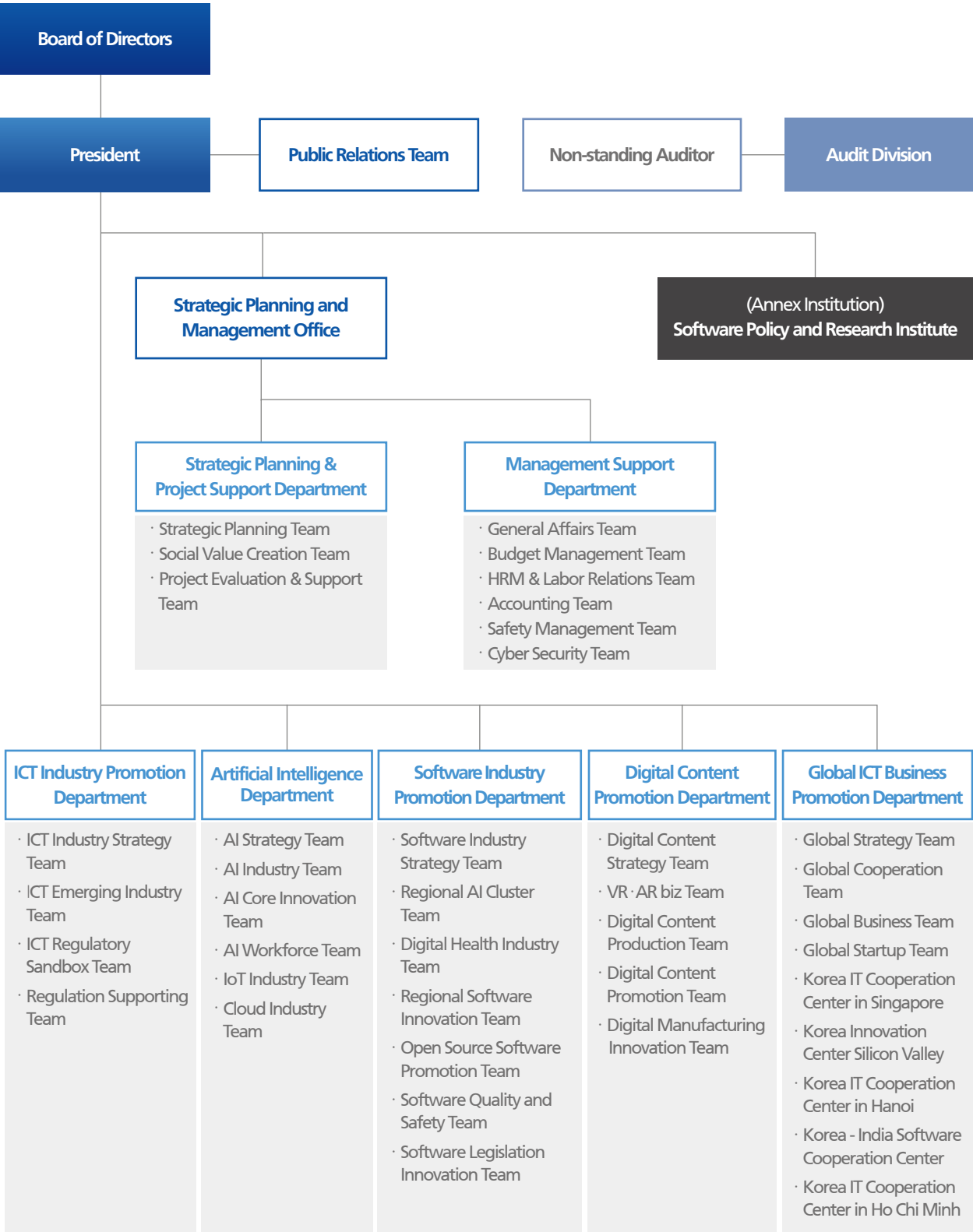
History

Since its inception in 2009, NIPA has been dedicated to the identification of ICT businesses and policy-making and to the creation of future growth engines for the economy.

NIPA will continue its efforts for a new decade of South Korea's ICT industry.



Organization



- National IT Industry Promotion Agency (Main Office)**
10 Jeongtong-ro, Deoksan-eup, Jincheon-gun,
Chungcheongbuk-do Province, South Korea
T. 043-931-5000
- Software Policy and Research Institute (Annex)**
4F Research Building (A), Global R&D Center, 22 Daewang Pangyo-ro 712-gil,
Bundang-gu, Seongnam-si, Gyeonggi-do Province, South Korea
T. 031-739-7300
- Nurikkum Square**
11F R&D Tower, Nurikkum Sqare Square Building, 396 World Cup Buk-ro,
Mapo-gu, Seoul, South Korea
T. 02-2132-1000
- ICT & Culture Convergence Center [ICT & Culture Convergence Team]**
Corporate Support Hub, Pangyo Techno Valley II, 815 Daewang Pangyo-ro,
Sujeong-gu, Seongnam-si, Gyeonggi-do Province, South Korea
T. 031-5182-9019 | F. 032-720-8301
- K-ICT Device Lab [Digital Manufacturing Innovation Team]**
3F Startup Campus #1, 20, Pangyo-ro 289-gil, Bundang-gu, Seongnam-si,
Gyeonggi-do Province, South Korea
T. 031-710-8716 | F. 031-710-8714
- IoT Technical Resources Center (Gasan) [IoT Industry Team]**
#206 World Meridian Venture Center 1-cha, 254 Beotkkot-ro (Gasan-dong),
Geumcheon-gu, Seoul, South Korea
T. 02-6458-4420 | F. 02-6459-4410
- IoT Technical Resources Center (Songdo) [IoT Industry Team]**
Songdo Branch, NIPA, 82 Venture-ro, Yeonsu-gu, Incheon-si, South Korea
T. 032-720-8200 | F. 032-720-8204
- Growth Support Center for Digital Content Firms**
[Digital Content Production Team]
#410, 4F, Anyang Creative Economy & Convergence Center, 11-41 327-gil,
Simindaero, Dongan-gu, Anyang-si, Gyeonggi-do Province, South Korea
T. 031-360-5946 | F. 0331-350-5952
- K-ICT Cloud Innovation Center [Cloud Industry Team]**
4F, Building 1, Startup Campus, 289 Pangyo-ro, Bundang-gu,
Seongnam-si, Gyeonggi-do Province, South Korea
T. 1670-5005 | F. 031-606-1519
- ICT Innovation Square**
[AI Workforce Team, Digital Manufacturing Innovation Team]
14F-16F, Seoul Mapo Post Office, 89 Mapodaero, Mapo-gu, Seoul, South Korea
T. 02-6953-0539

