

contact the authors directly should you have queries.





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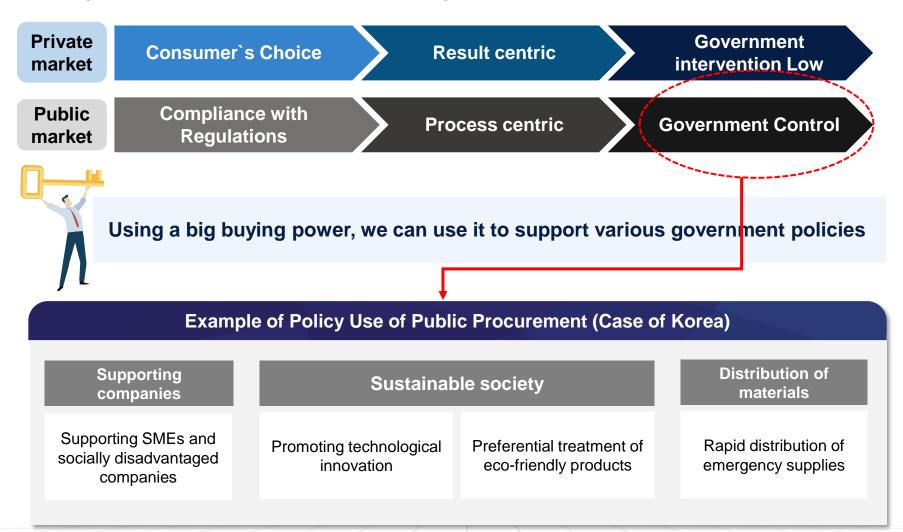
- 1. Key Features of Korea's Public Procurement System
- 2. Support for SMEs through Public Procurement
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Key Features of Korea's Public Procurement System



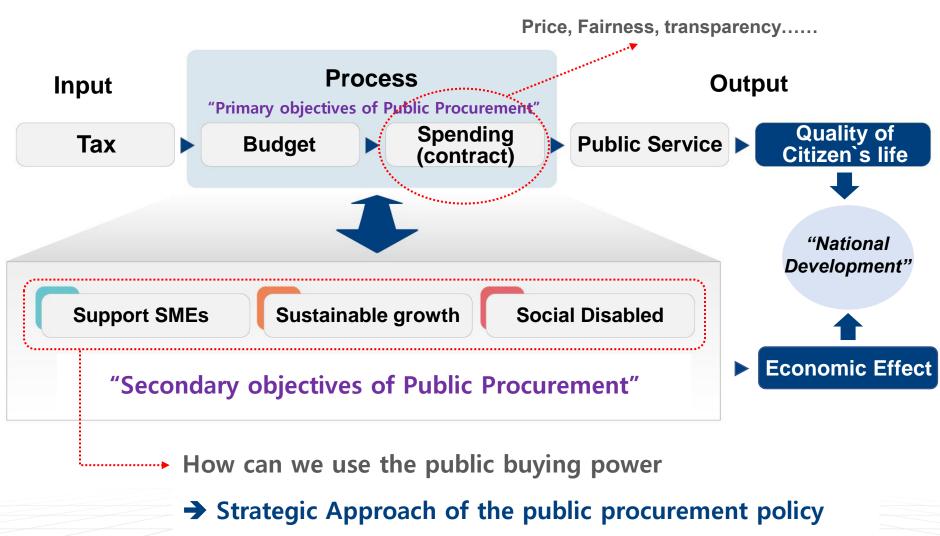
Why is the Public Procurement Important?



Key Features of Korea's Public Procurement System



Main Purpose and Strategic Utilization of Public Market







Changes in Public Procurement & Government Policies (Focus on Innovation)

Material distribution & Financial execution (1945-1993)



National reconstruction, people's livelihood stability, economic foundation construction

PPS founded(1961.10)

The era of quality assurance (1993-2006)



Technology traction using public procurement from the perspective of industrial promotion

→ Promote policy feasibility through government-run public procurement markets

e-procurement system launching(2002.10)

1st Supplier-Centered Innovation (2006-2019)



Full-scale implementation of public procurement system for SME innovation

ightarrow Major reorganization to emphasize innovation of SMEs and utilize public procurement system

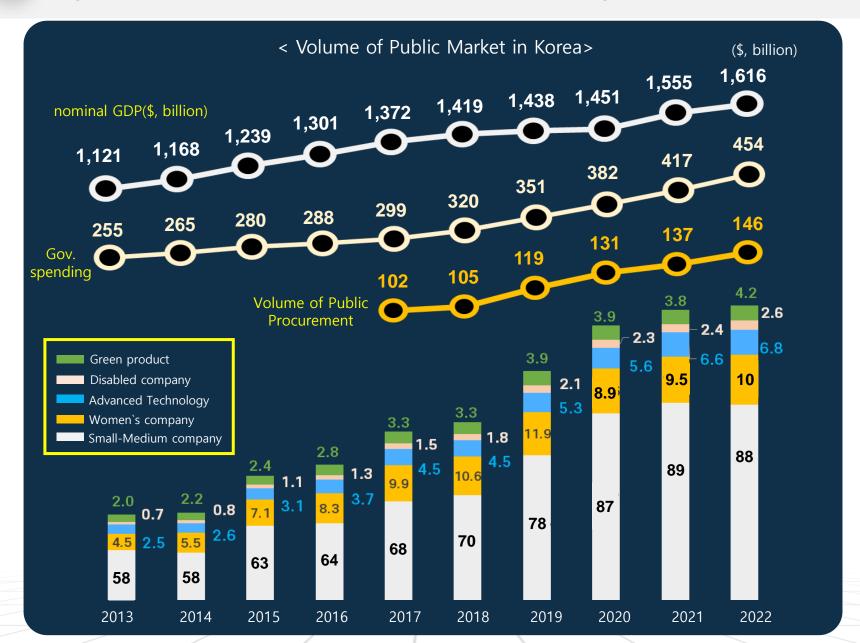
2nd Demand-based innovation (2019-present)



- → Introduce innovation procurement policy to promote people's livelihood through improvement of public service
- → Establishment of public procurement as an important area of national policy and establishment of a pan-ministerial control tower

KOREA INSTITUTE OF PROCUREMENT

Key Features of Korea's Public Procurement System



Key Features of Korea's Public Procurement System



■ Latest trend of Korea's Public Procurement Policy

- Efficiency in purchasing government goods
- SME protection
- Certification on ready-made product/partial improvement



Innovation Procurement Policy

- Creation of an initial market for innovative products
- Public demand discovery and corporate innovation linkage
- Innovation procurement platform, cross-ministerial collaboration system



Activation of innovative purchasing system

Industry innovation & Policy linkage

Governance establishment & Improvement of procurement administration



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○ Good way to understand of Korea`s Public Procurement Systems for SMEs

Public Procurement System in Korea

Purchase Contracts (Operation Part)

Contract business area for purchasing (contracting) goods, services, construction, etc. for administrative actions of state institutions

- Public Procurement Service performs most of the contract work required by the country
- Good quality, reasonable price, and transparency in the contracting process are the top priorities

Policy Utilization (Promotion Part)

Areas that are strategically applied, such as reflecting a separate support system to achieve policy goals (eg, preferential purchase of SME products)

 In order to utilize the procurement market, as a means to achieve policy goals, relevant institutions are in charge of laws and systems and operate them.



- Reflecting the contract system
- Promoting purchase of specific products
 & preferential treatment for specific companies
- Regulations& Support





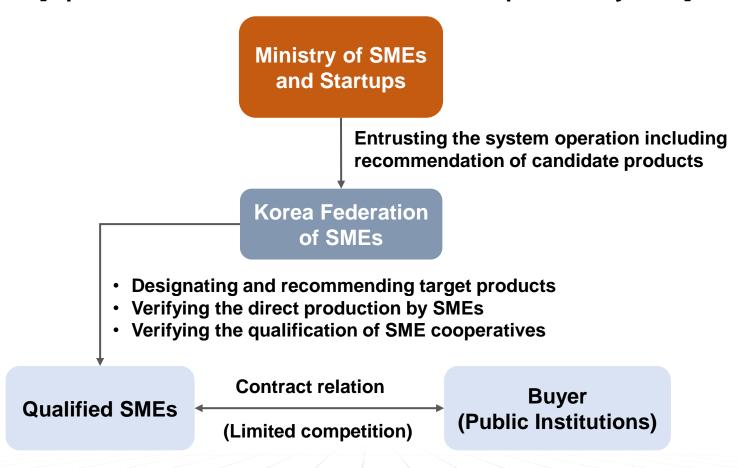
Present Act related to Public Procurement

NO	Law Title		Gov. Dept
1	ACT ON CONTRACTS TO WHICH A LOCAL GOVERNMENT IS A PARTY	O and the set I arre	Ministry of the Interior and Safety
2	ACT ON CONTRACTS TO WHICH THE STATE IS A PARTY	Contract Law	Ministry of Economy and Finance, Public Procurement Service
3	GOVERNMENT PROCUREMENT ACT	Central Gov. Procurement Law	
4	ELECTRONIC PROCUREMENT UTILIZATION AND PROMOTION ACT	E-procurement Law	
5	ACT ON FACILITATION OF PURCHASE OF SMALL AND MEDIUM ENTER URED PRODUCTS AND SUPPORT FOR DEVELOPMENT OF THEIR MARK	Ministry of SMEs and Startups	
6	ACT ON THE PROMOTION OF PURCHASE OF GREEN PRODUCTS	Using Gov. buying power Law	Ministry of Environment
7	SPECIAL ACT ON THE PREFERENTIAL PURCHASE OF PRODUCTS MANUFACTURED BY PERSONS WITH SEVERE DISABILITIES		Ministry of Health and Welfare



▶ Representative SME support schemes in public procurement

[Operation Mechanism of Inter-SME Competition System]







- Representative SME support schemes in public procurement
 - **❖** Inter-SME Competition Products



⇒ Inter-SME Competition is

Competition (limited competition) among SMEs on designated products and deciding bidder through contract execution capability evaluation



Designation procedures and requirements(1/2)

Basic Requirements

- More than 10 SMEs that directly produce and deliver domestically
- Annual purchase demand of more than KRW 1 billion by public institutions

Procedure for Designation



Review

 Suitable for manufacturing and producing SMEs, damage to SMEs when delivering to large companies, etc.

Validity: 3 years





Designation procedures and requirements(2/2)

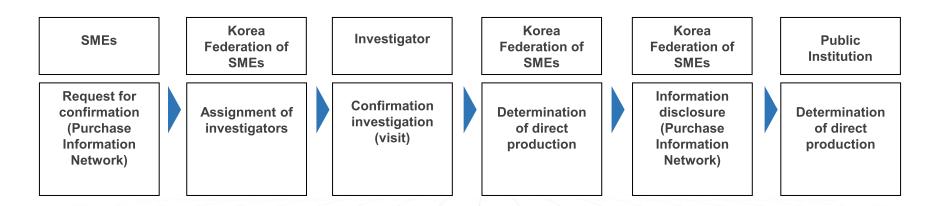
Direct Production Confirmation System

- Prevent large companies from disrupting competition by delivering imported products, etc.
- Prevent delivery of subcontracted products after a private contract

Direct Production Confirmation Standard

Production facilities, essential personnel, major processes or production data, etc.
 ex) production facilities for information signs: live output, cutter, welder, compressor

Direct Production Confirmation Process





Related policies/programs

Direct Purchase of Construction Materials for Public Works

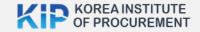
- In construction on certain basis,
- When using construction materials (120 products designated for direct purchasing) valuing over KRW 30 million
- Project owner (public institution) directly purchases construction materials and supply them to the construction company
- Prevent SMEs from becoming subcontractors such as large construction companies

Target Public Works

- Integrated Construction : More than 2 billion KRW
- Specialized construction works, telecommunication works, fire fighting facilities construction: More than 300 million KRW

Exception to Direct Purchase

If there is a justifiable reason, such as the situation of demand and supply of materials



Priority Purchasing Program

<Operation Mechanism of Priority Purchasing System>

[Government Policy]

Regulations and Evaluation of Public parties



Purchase Goal



Quality testing institutions are important



Evaluation of purchase rate

Restricted competition
Of
Single Contract



[Buyer]

Government office
Public company
Local Government, etc..

[Suppliers]

Companies (especially small-medium companies)





Priority Purchasing Program

Type of Company	Target ratio	
SME	50% of Total Contract	
Women	Goods 5%, Service 5%, Construction 3%	
Disable	1% of Total Contract	
Social value	8 % of Total Contract	
Advanced Technology	15% of the purchase amount of SME products	
Green product	No ratio but, submit annual objective	

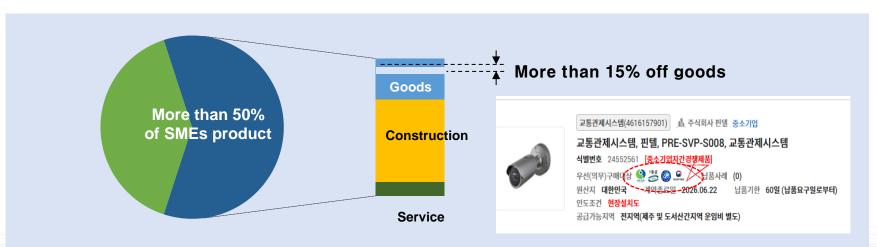


A contract with a type of business supported by government policy



Purchase of government-certificated products

<Priority Purchase for SMEs` advanced Technology>





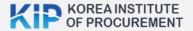
Type of Advanced Technology products

NET (New Excellent Technology, New Technology Certificate)	
NEP (New Excellent Product, New Product Certificate)	Korean Agency for Technology and Standards
GS (Good Software, Excellent SW)	
EPC (Excellent Performance Certification)	Regional SMEs and Startups
Excellent Procurement	Public Procurement Service
Products that have been developed through conditional purchase R&D business	SMEs Department



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Background of Innovation program in Public Procurement

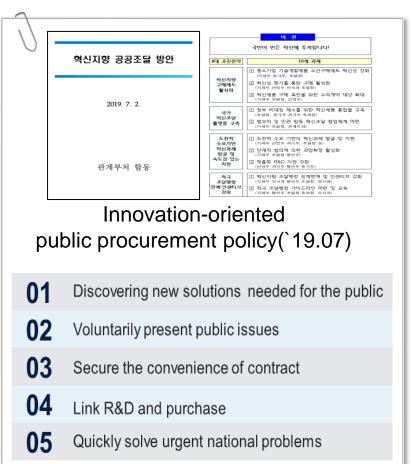
Korea had recognized the importance of public procurement and promoted policies to establish innovation procurement system since 2019

"Innovative growth, of course, should be led by the private sector, but the government needs to play an active role in promoting it"

"To do so, we need to increase public sector demand,

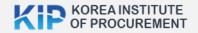
* `18.5.17 President Moon Jae-in`s speech in innovation growth report session

Korea Government make a new policy to support for innovative growth through 'Innovative public procurement'



03

Understanding Innovative Procurement System



> Framework of Innovation Policy in Public Procurement

Past: Technology-push Present and Future: Demand-pull

"Demand" means = Social(public) problem

Citizen Government Company Commercialization of Discover Challenging Demands Enhance living standard **«» (())** R&D outcomes Present Innovative for citizens by innovative Technology innovation Standards(tech spec.). public service Forward purchase/ Risktaking **Creating new market Buying Innovation** Advanced New Improvement of Public Services **Economic** Government Technology Product (Welfare · Environment · Safety) Growth **Innovation** Innovation Eco-system (Technology-Market-Public service)



▶ The expected benefits from Innovation Procurement

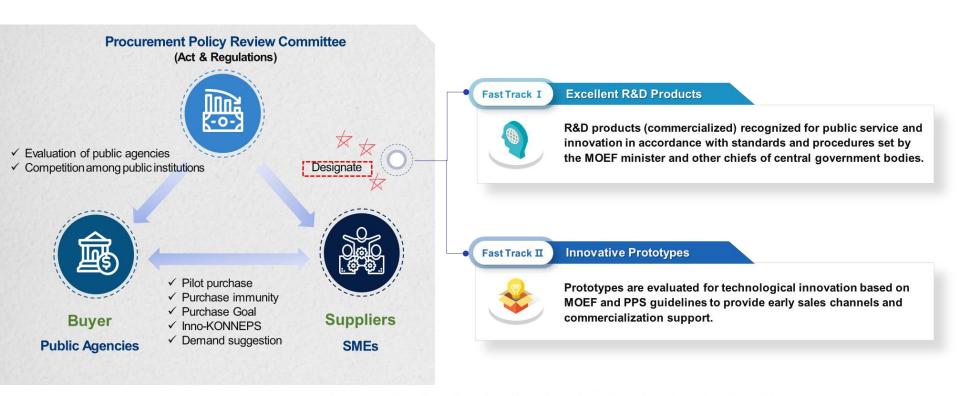
Innovation Procurement was established to meet the public's expectations with the government serving as the first buyer of the Innovative Product made by SMEs, thereby lowering entry barriers to the public procurement market for them. It is also to provide innovative solutions to diverse social issues





Operational Mechanism of the Program

The product designated by the Procurement Policy Review Committee for contributing to public service and technological innovation



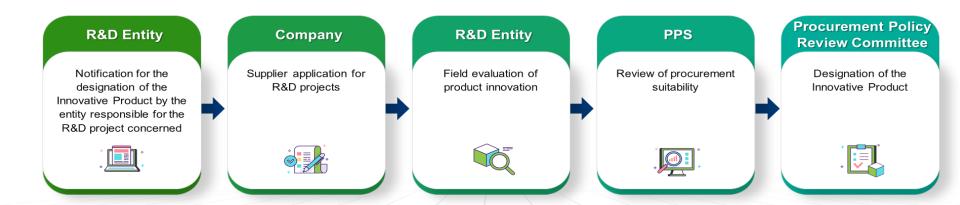


▶ Procedure for Excellent R&D Products

Fast Track I

Products designated by central administrative agencies or central administrators, recognizing their publicness and innovativeness among R&D outcomes performed by central administrative agencies

- The Ministry of Science and ICT
- · The Ministry of Trade, Industry and Energy
- · The Ministry of Oceans and Fisheries
- The Ministry of Land, Infrastructure and Transport
- The Ministry of SMEs and Startups and the Ministry of Environment



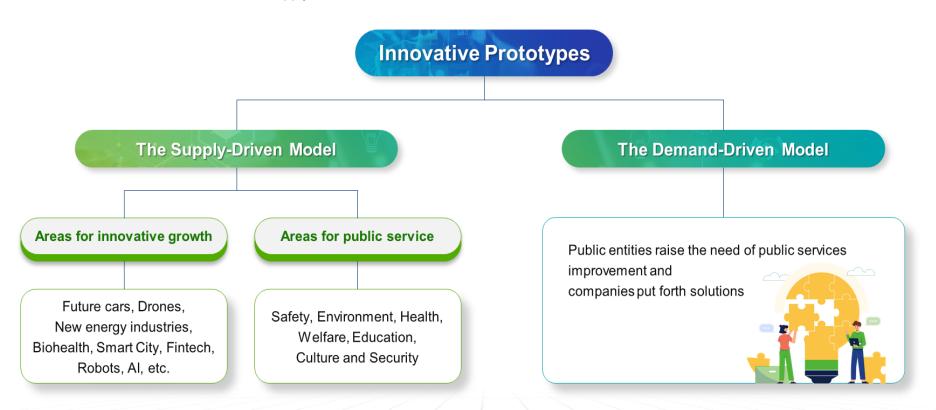


Procedure for Innovative Prototypes

Fast Track II

Goods and services (above Technology Readiness Level 7), right before commercialization, designated by the PPS administrator after being evaluated for innovation and public service

Divided into 'Demand-Driven' and 'Supply-Driven'





The Supply-Driven Model

A company applies for the designation of the Innovative Product. When designated, its prototype is directly purchased or used in a pilot manner by a user entity

Supply-Driven Approach: Notification → Product Evaluation → Designation of the selected one as the Innovative Product
→ Matching the supplier and user entities → Contracting

Fast Track II **Procurement Policy PPS** Company **PPS Review Committee** Submission of proposals Designation of the selected Notification on designation of Product evaluation for the Innovative Product innovation and public service prototypes as the Innovative Product Company / User entity **PPS / Company** Company / User entity **PPS / User entity** Conclusion of the purchase Making the test plan by Product tests and feedback MoU between PPS and on test results contract the user the user entity

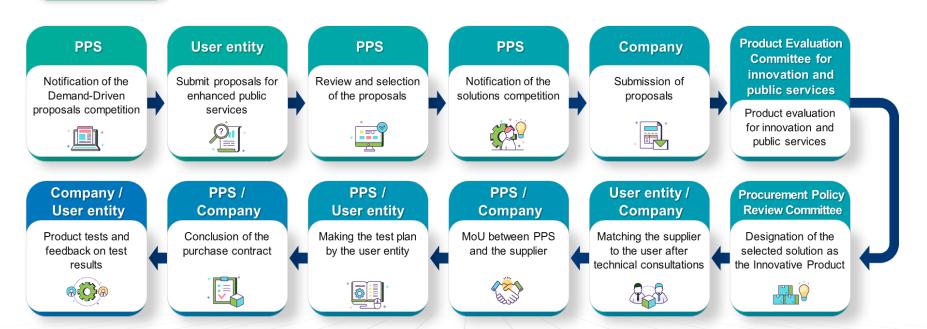


The Demand-Driven Model

If public entities put forth a particular task proposal to enhance public service, the Innovative Product suited to the purpose is explored, selected and then used in a pilot manner

• **Demand-Driven Approach**: Notification of the Demand-Driven tasks competition → Evaluation → Task selection → Notification of the solutions competition → Evaluation → Designation of the selected solution as the Innovative Product → Matching the supplier to the user-entity → Contracting

Fast Track II





Discovery and Development of Innovative Demand

In the execution of innovative procurement, the existing limitations lie in identifying or developing new public demands.

Public organizations are not accustomed to creating new demands, so they are collaborating with **experts** to drive this process

Public Demand

= New Public Service

Joint Development Method (Public entities↔ KIP)

Free Proposal Method (Citizen)







Procedures for developing "demands"

Inter-agency Meeting



Gathering Opinions through
Meetings with Organizations
Proposing Demand-Driven Projects

Market Research



Investigation of Relevant
Companies/Products/Technologies
Research on Relevant R&D Project
Execution History

Operating Demand Development Unit



Establishment of "Demand
Development Unit" to refine and
enhance projects
(KIP-Public Institutions-Companies-etc)

Demand Briefing Session



Soliciting Public Opinions from Companies on Projects Developed by Demand Development Unit



D Benefits purchasing of the Innovative Product

Pilot Purchase for Innovative Prototypes

- "When identified as an innovative product, it can be connected to a trial purchase."
 - The total budget for pilot purchases in 2024 is approximately \$40 million



Purchase immunity

- The purchasing officer of a user entity is not liable for any damage caused by a purchase, unless willful or gross negligence by the officer is confirmed.
- Paragraph 4 of Article 27 of the Government Procurement Act



Reflect the purchase in the evaluation of public agencies

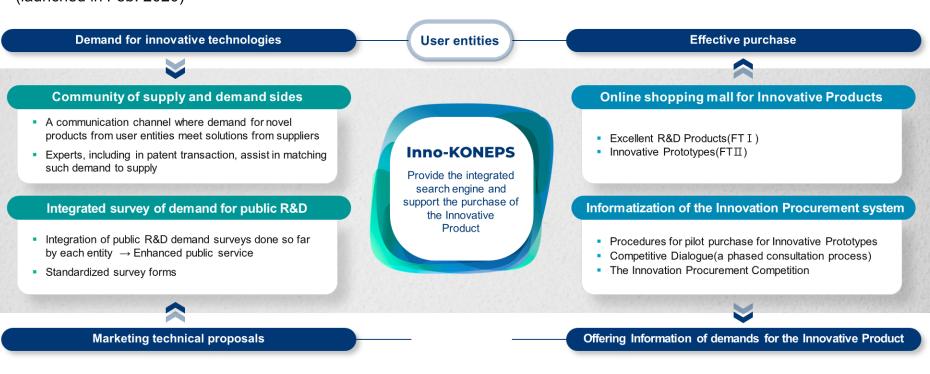
Around 1% of the total purchasing volume by public institutions is allocated to innovative products, and such purchases are taken into account when evaluating government agencies.





▶ Inno-KONEPS, the Innovation Procurement Platform

A system comprehensively managing and supporting Innovation Procurement policies by creating relevant demand and expanding sales channels for manufacturers of Innovative Products (launched in Feb. 2020)

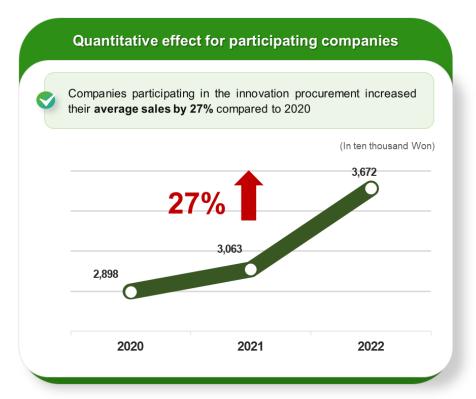






Performance analysis of Innovation procurement

Remarkable results such as rapid sales growth of several companies were found



Survey results on satisfaction of designated companies

Classification	Score (5 Likert)	Converted score
Promotional Effects	4.3	86
Improvement of Reliability	4.4	88
Increasing Market Share of Public Procurement Market	3.9	78
Sales Growth	3.9	78
Commercialization of Technology	4.0	80
Export Promotion	3.2	64
Benefits for Designation	3.8	76
Satisfaction with Participation	4.2	84
Average	4.0	80

Source: Korea Institute of Procurement (2023)



Example Products



Dot Pad



- Provides the low vision community access to maps, diagrams, charts, and other illustrations, allowing easy access to content on the internet
- Innovate dot image processor uses Al to analyze and segment images to produce tactile graphics best suited for visually impaired users



DFG-aided Al Surveillance Camera



- Orop Free Glass(DFG) can promptly remove contaminants on the surface with fast operation speed through novel microfluidic technologies
- Drop Free Glass has a low power consumption as the flow of current is limited by a dielectric layer
- Event detection through deep learning-based video data training in various environments and conditions



Example Products

Smart Wearable Airbag for Professionals



- Active protection for falling accident/collision impact
- Internal acceleration and gyro sensors detect a fall and activate the airbag, therefore, fully inflated within less than 0.2 seconds
- Automatic power on/off button by closing/opening the buckle located in the middle

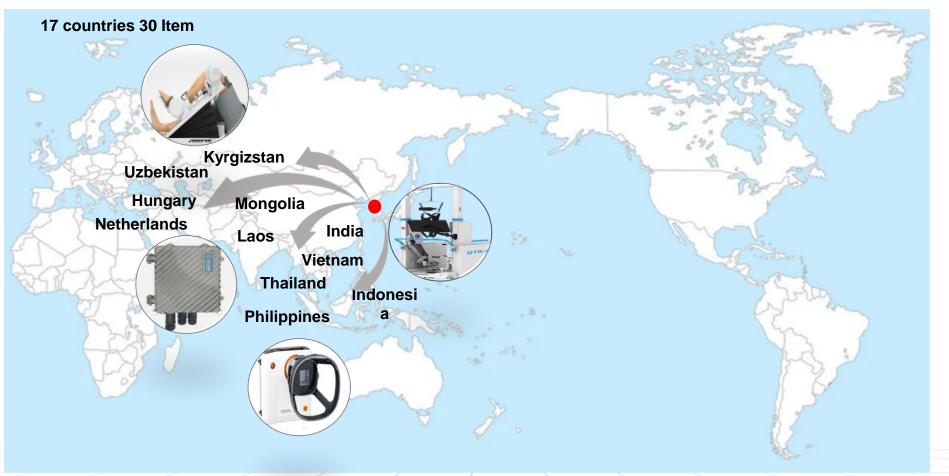
Intelligent Water Leak Management System

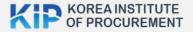
- A total water leak management system with AI, IoT, Cloud technology
- Al Model helps to identify whether it is leak or not with minimum help from expert
- A tailored Al solution that collects and analyzes a wide range of sound and noise data using our own high-sensitivity acoustic IoT sensor and CNN-based sound data analysis Al model



PPS's Overseas Pilot Application Program for Innovative Products

The overseas pilot application program is a type of small scale ODA program(not official term) that aims to solve public(social) problems in overseas countries together



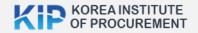


PPS's Overseas Pilot Application Program for Innovative Products

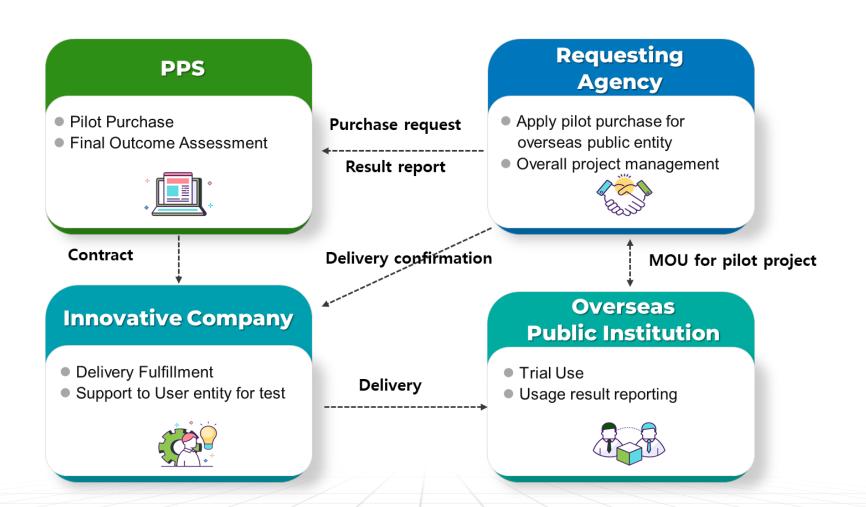
PPS operates Overseas Pilot Application Program for Innovative Public Procurement Products through cooperation with foreign public entities and non-profit organizations



- Overseas pilot applications seems like small-scale ODA(not official term)
- Mutually beneficial cooperation
 - User entities owns innovative products cost-free
 - Developing into an ODA program(Depending on the situation and conditions)



Procedure for Overseas Pilot Application Program





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