

2024/25 KSP with Poland

Final Reporting Workshop
July 2025

TOPIC 1.

Development of Mid to long-term strategy and action plans for SME Digitalization

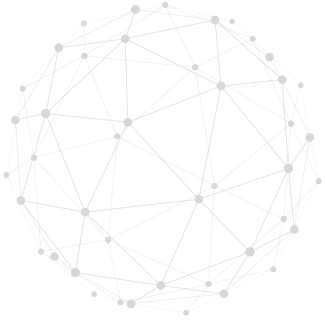
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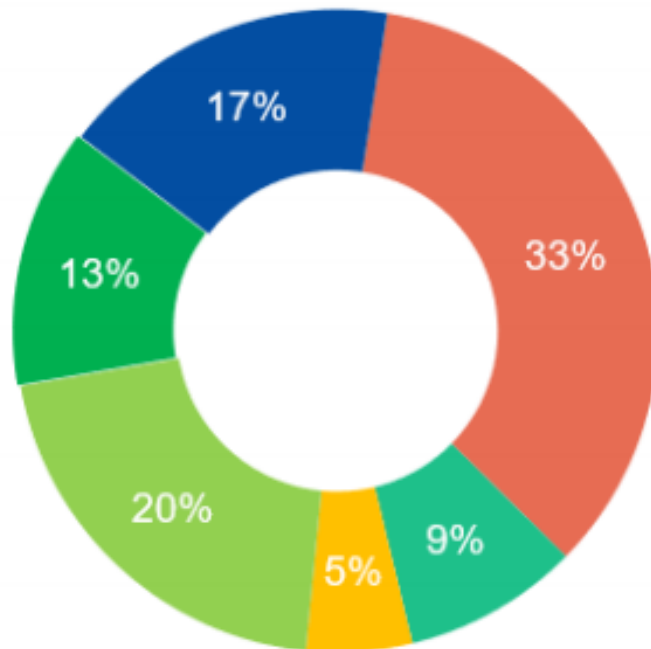
- 01 — CURRENT STATUS OF SME DIGITALIZATION IN POLAND
- 02 — KOREA'S EXPERIENCE
- 03 — **POLICY RECOMMENDATIONS**



01 Current Status of SME Digitalization in Poland



Factors Hindering Digital Transformation of SMEs in Poland



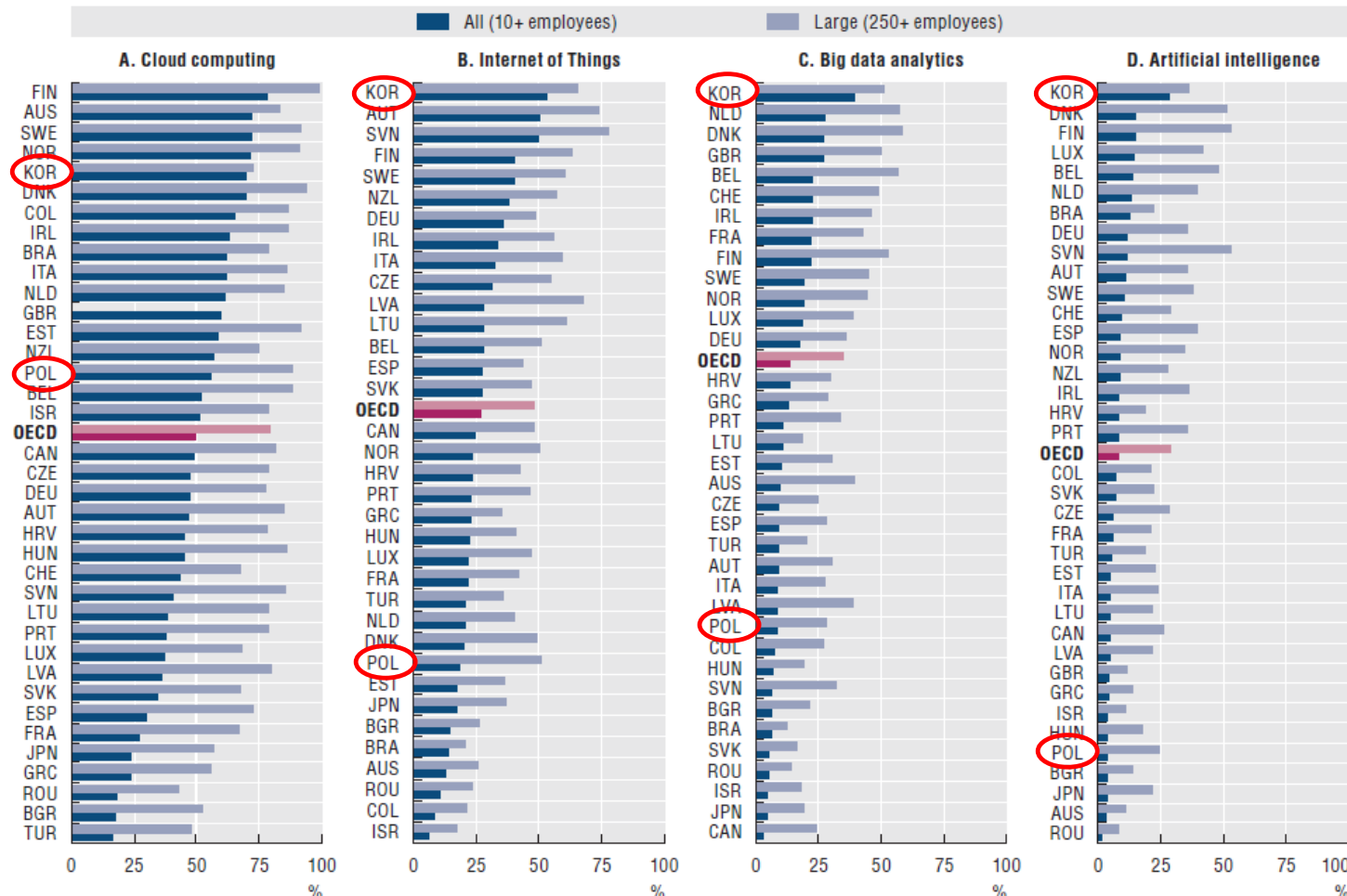
◆ 33% of SMEs responded that they are not interested in adopting digital technologies in their business.

◆ Major constraints :
Lack of ① Motivation,
② Financial Resource,
③ Skilled Personnel,
④ Knowledge on government support

Source: Advancing the digital transformation of Polish enterprises: Current state Report, KPMG, 2024

Digital Deficit in Cutting Edge Technologies

Adoption of Data-driven Technologies By Firms (2023)

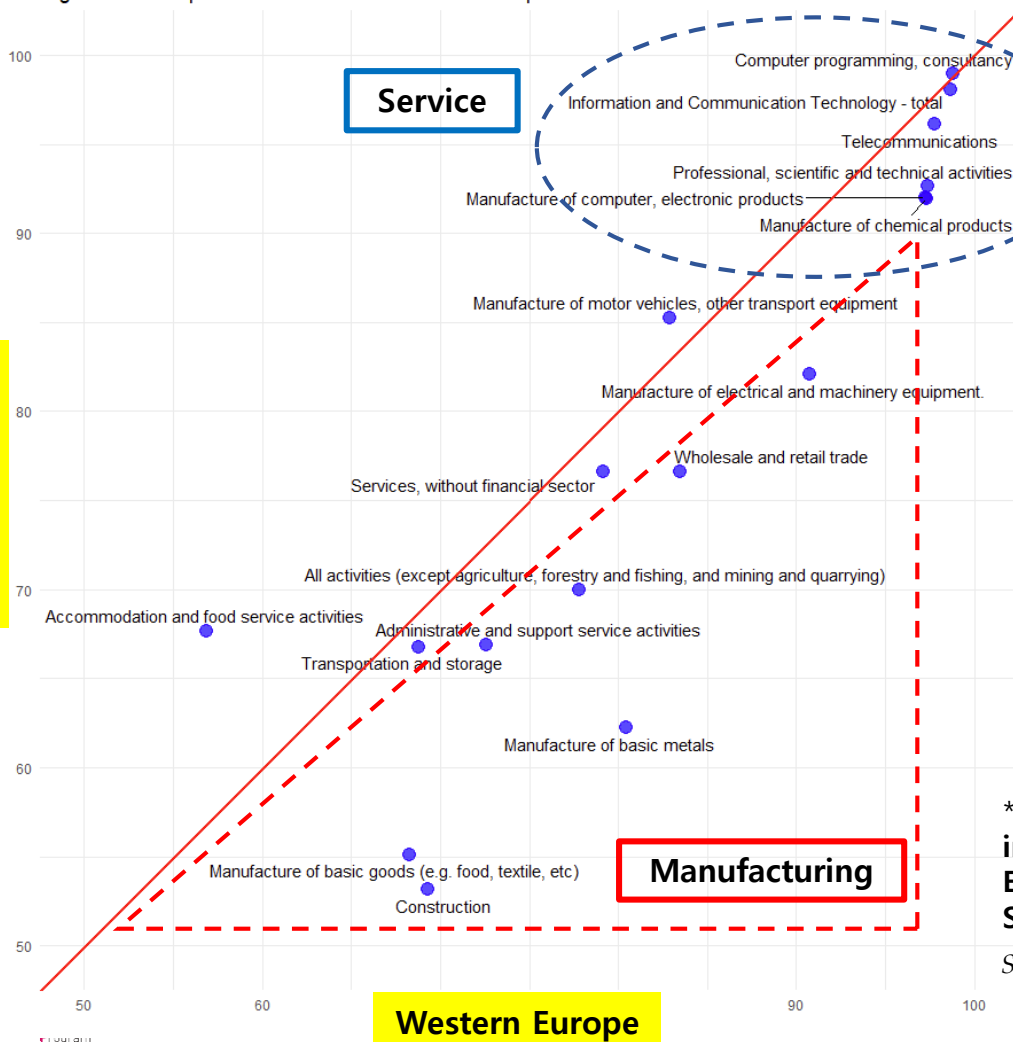


◆ As of 2023, only about 4% of Polish enterprises use AI and 8% use Big Data Analytics, highlighting a significant gap compared to leading economies. In South Korea, by contrast, AI is adopted by 28% of businesses and Big Data Analytics by 40%, the highest adoption rates among OECD countries. Moreover, **Korea demonstrates minimal digital adoption gaps between large firms and SMEs, underscoring a more inclusive and advanced digital transformation landscape.**

Digitalization Gap between Poland and Western Europe by industry sectors



Digitalization Gap between Poland and Western Europe



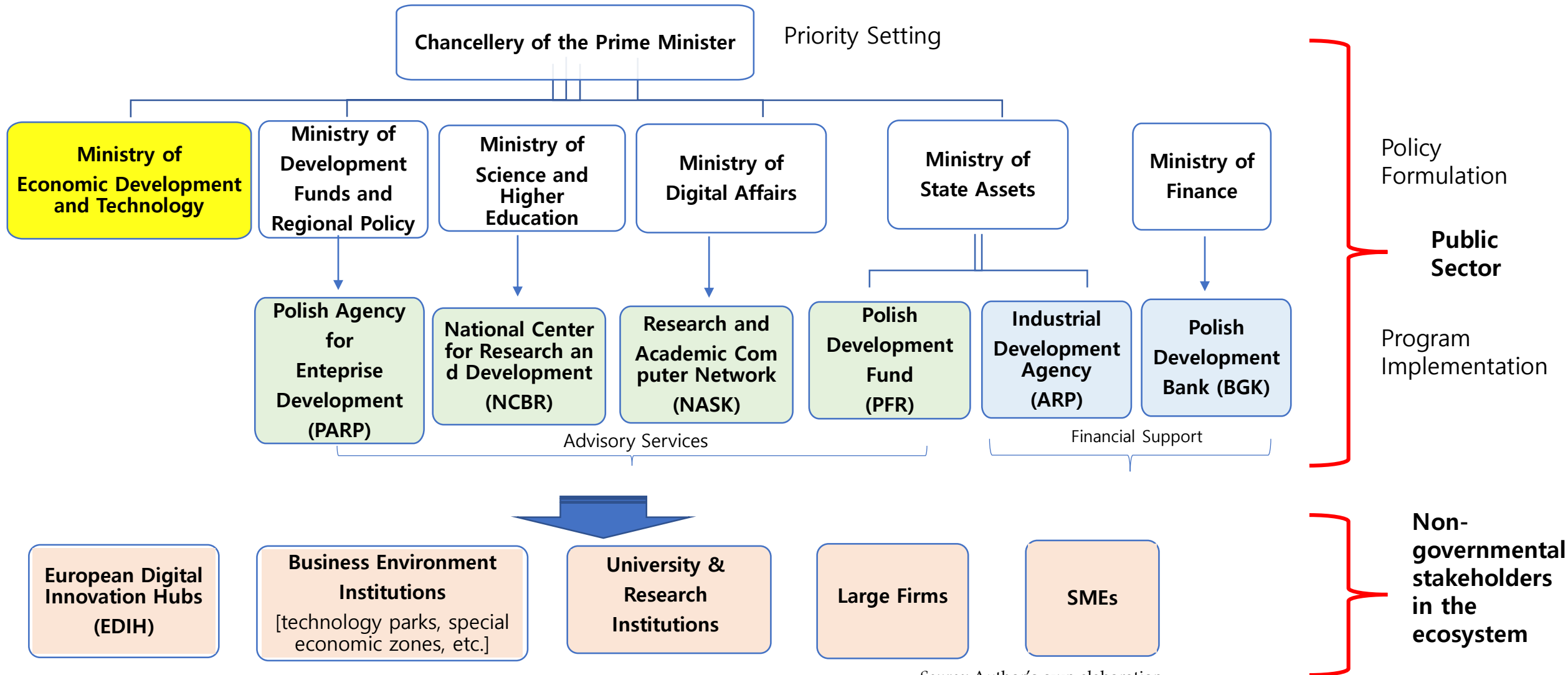
* Diagonal Line : Digitalization Intensity level (Poland = Western Europe)

- Overall, the **digitalization gap** was more significant in manufacturing than in services. In particular, within the manufacturing sector, the gap was wider in **basic industries** such as food, textiles, and basic metals rather than in advanced manufacturing.
- Policy Direction for SME Digitalization shall focus on
 - ① **Enhancing or maintaining the competitiveness of the service sector**
 - ② **Addressing weakness in basic manufacturing.**

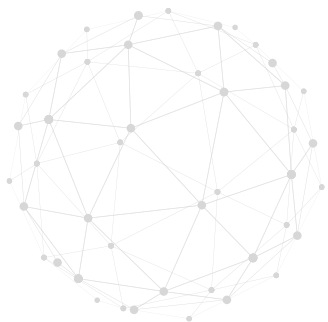
* Note: This graph shows the proportion of enterprises with **at least a basic level of digital intensity**, as defined by the Digital Intensity Index published by Eurostat. The value for **Western Europe** represents the average of five countries: **Germany, France, Italy, the Netherlands, and Sweden**.

Source: Author's elaboration based on Eurostat (2024).

Governance System for SME's Digitalization in Poland



Source: Author's own elaboration.



02 Korea's Experience

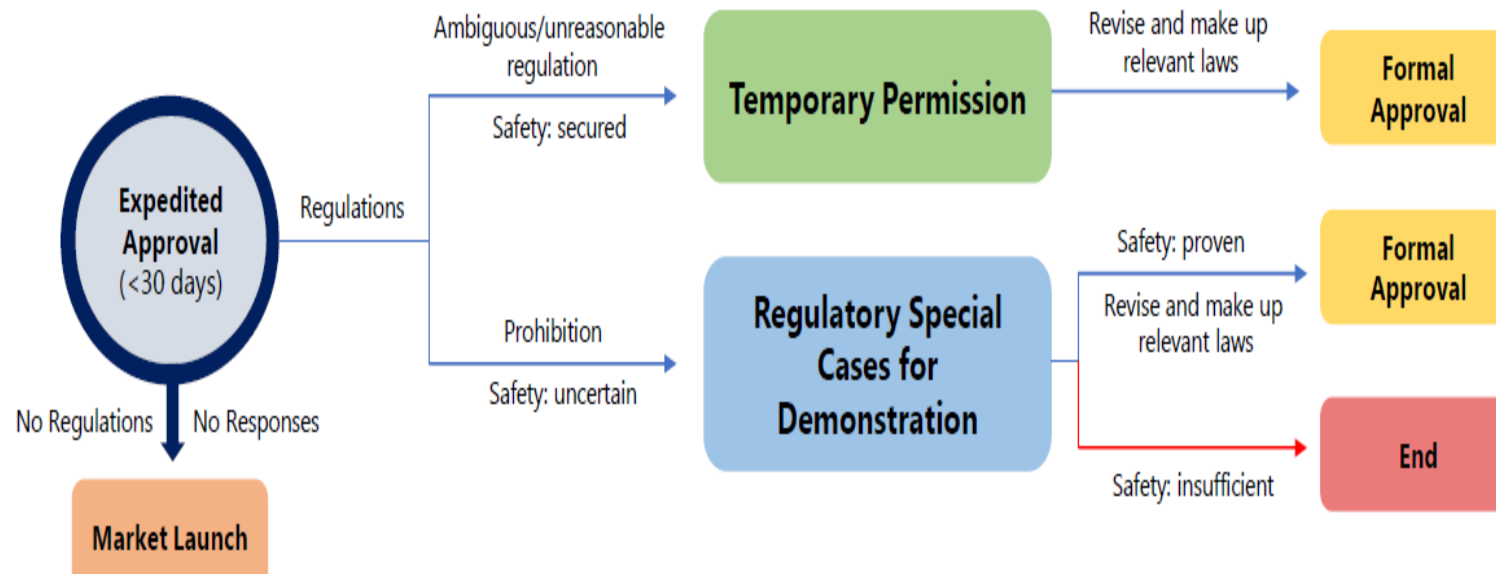
- 01 — Regulatory Sandbox
- 02 — Smart Manufacturing Innovation
- 03 — Smart Service Support Program



Regulatory Sandbox in Korea

◆ Types of Exemptions: Expedited Approval, Temporary Permission, Regulatory Special Cases for Demonstration

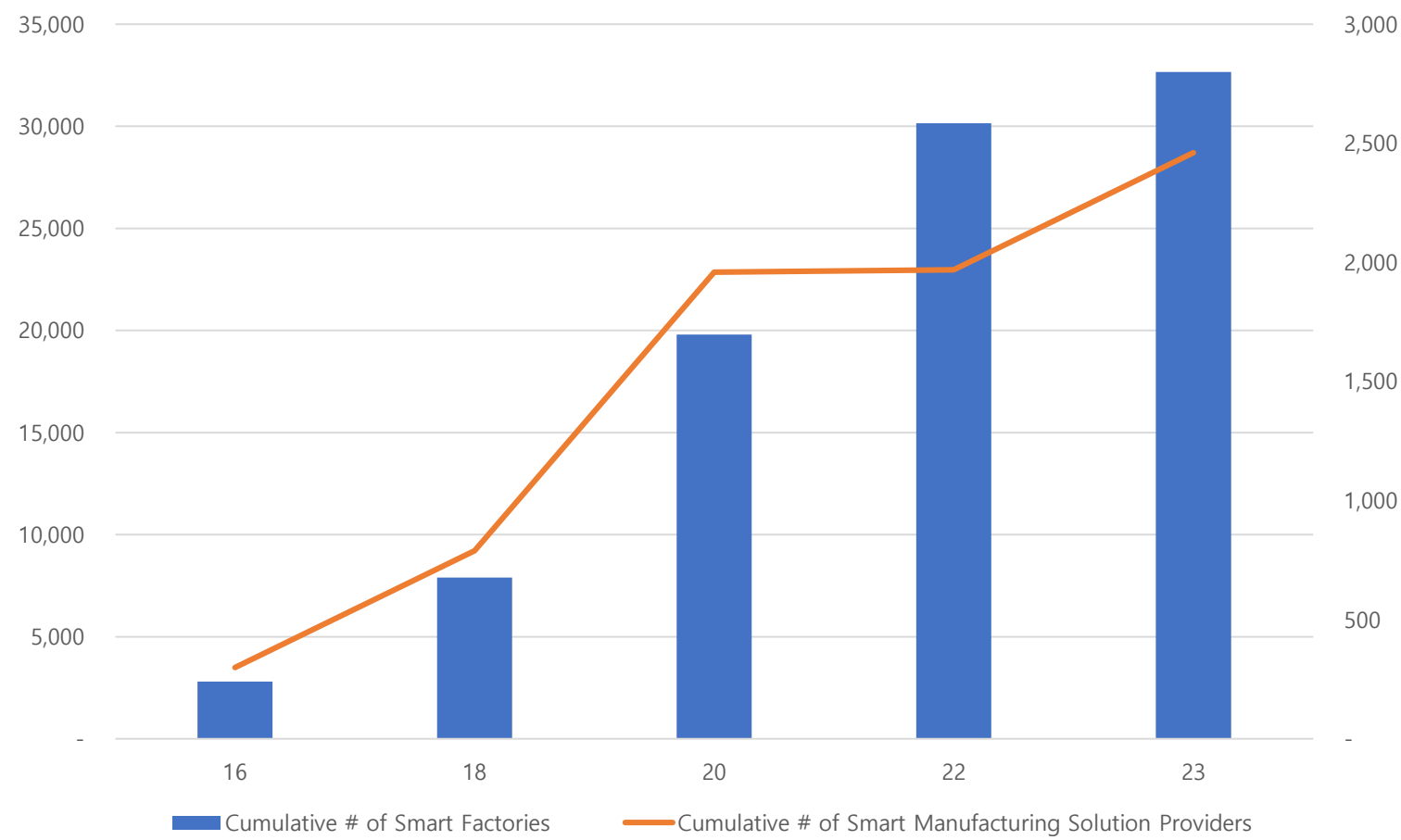
1. Prompt confirmation: Inquire regarding existing regulations → If not answered within 30days, considered there are no regulations
2. Temporary Permission: For ambiguous/unreasonable regulation → Market launch without regulation and make up relevant laws afterwards
3. Regulatory Special Cases for Demonstration: For ambiguous/unreasonable regulation prohibition → Permit tests/verifications without regulations and make up relevant laws afterwards



Managing Ministries, Agencies and Sectors of Regulatory Sandbox

ICT Convergence (MSIT)	Industrial Convergence (MOTIE)	Financial Innovation (FSC)	Regulation free Special Zones (MSS)	Smart City (MLIT)	R&D Special Zones (MSIT)	Mobility (MLIT)	Circular Economy (ME)
Enforcement Decree of the Special Act on Promotion of Information and Communications Technology, Vitalization of Convergence Thereof, etc. (Enforced on 19.1.17)	Industrial Convergence Promotion Act (Enforced on 19.1.17)	Special Act on Support for Financial Innovation (Enforced on 19.4.1)	Act on Special Cases Concerning the Regulation of Regulation-Free Special Zones and Special Economic Zones for Specialized Regional Development (Enforced on 19.4.17)	Act on the Promotion of Smart City Development and Industry (Enforced on 20.2.27)	Special Act on the Promotion of Special Research and Development Zones (Enforced on 20.12.10)	Act on the Support for the Innovation and Revitalization of Mobility (Enforced on 23.10.19)	Act on Promotion of Transition to Circular Economy and Society (Enforced 24.1.1)
							
Deliberation Committee on New Technologies and Services and Others (Chair: Minister of MSIT)	Deliberation Committee on Regulatory Exceptions (Chair: Minister of MOTIE)	Innovative Finance Review Committee (Chair: Chairman of FSC)	Deliberation Committee on Regulatory Exceptions (Chair: Minister of MSS) Deliberative Committee on Regulation Free Zones (Chair: Prime Minister)	National Smart City Committee (Chair: Minister of MOTIE)	Deliberation Committee on Special R&D Zones (Chair: Minister of MSIT)	Deliberation Committee on Mobility (Chair: Minister of MLIT)	Deliberation Committee on New Technologies and Services for Circular Economy (Chair: Minister of ME)

Smart Factories & Smart Manufacturing Solution Providers in Korea



Source: KOSMO Smart Manufacturing Innovation Promotion Group. (2024, February). *Leap to a global manufacturing powerhouse! Advancement plan for the smart manufacturing innovation ecosystem* [Video]. YouTube. <https://www.youtube.com/watch?v=EOKPBdXKDzI>

7 Strategic Areas and Policy Direction

Category	Characteristics	Strategic Areas	Policy Direction
High Technology Level, High Strategic Importance	Priority Support Area	Machine Vision, Production Systems, Communication Network Equipment	Securing cutting-edge technology, Supporting global expansion
Low Technology Level, High Strategic Importance	Growth Potential Area	Digital Twin, Manufacturing Big Data & AI	Long-term technology development support, Workforce training
High Technology Level, Low Strategic Importance	Market Maturity Area	Logistics Management Systems	Public sector demand creation, Supporting global expansion
Low Technology Level, Low Strategic Importance	Selective Development Area	Control Systems / Controllers	Selective support for technological advancement

Source: Ministry of SMEs and Startups. (2024, October 2). MSS promotes an advanced strategy to foster the intelligent (smart) manufacturing industry. <https://mss.go.kr/site/smba/ex/bbs/View.do?cbIdx=86&bcIdx=1053628&parentSeq=1053628>

Smart Service Support Program Overview

Objective: To support the construction of ICT-based smart service solutions for SMEs by promoting innovation in service sectors using Big Data, Artificial Intelligence (AI), and other advanced ICT technologies.

Support Areas:

Support Type	Purpose	Duration	Maximum Allowable Support	Maximum Government Funding Ratio/ # of Projects in 2025
New	Build ICT-based smart solutions for a single company	6 ~8 months	50M KRW	50% / 110 Projects
New	Build ICT-based smart solutions for a consortium of 5 or more companies	6~8 months	250M KRW	50%/ 8 projects
Upgrade/ Deepening	Expand functionality or scope of previously built digital solutions	6~8 months	100M KRW	50%/ 25 projects
Coordinator Support	To assist SMEs in digital transformation (DX) by leveraging experts with specialized knowledge and experience, providing tailored consulting in the service sector.	Up to 2 sessions each for planning, development and applications	-	100%

Source: Ministry of SMEs and Startups. *2025 Call for Applications – Smart Service Support Program for SMEs*. Last modified April 3, 2025.
<https://www.mss.go.kr/site/smba/ex/bbs/View.do?cbldx=310&bcldx=1057801&parentSeq=1057801>.

Governance Structure and Roles for Smart Service Support Program



(Program Administrator : TIPA)

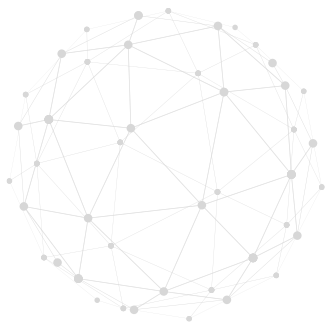
Responsible for detailed program design, including advancement of existing projects and planning of new support initiatives; also supports policy planning for the competent ministry, and manages budgeting, settlement, and program performance evaluation.

(Implementing Organization)

Responsible for identifying on-site demand, supporting coordinators, evaluating projects, and overseeing post-project management. Also provides networking opportunities to implement corporate support programs and to share and disseminate best practices and successful outcomes.

* In 2024, four organizations were selected through a public call for proposals based on evaluations of their implementation capacity, infrastructure (e.g., dedicated departments and personnel), and the adequacy of their support strategies for participating companies. (Project period: 2024–2026)

Source: Ministry of SMEs and Startups. *2025 Call for Applications – Smart Service Support Program for SMEs*. Last modified April 3, 2025.
<https://www.mss.go.kr/site/smba/ex/bbs/View.do?cbIdx=310&bclDx=1057801&parentSeq=1057801>.



03 Policy Recommendation

- 01 — Regulatory Sandbox
- 02 — Smart Manufacturing Innovation
- 03 — Smart Service Support Program



Establish Integrated Governance and Coordination Framework

- ◆ Break down institutional silos and create a unified national support system for SME digitalization.
- ✓ **Current Challenge**
 - Fragmented SME digitalization efforts across MRiT, PARP, NASK, BGK, Ministry of Digital Affairs, and regional agencies.
- ✓ **Proposed Solution**
 - Form an *Inter-Ministerial Task Force* or *Digital Transformation Steering Committee*, chaired by the Prime Minister's Office or jointly by MRiT and Digital Affairs.
- ✓ **Best Practice**
 - Inspired by Korea's centralized coordination via the Office for Government Policy Coordination (multi-ministry sandbox model).
- ✓ **Implementation Tools:**
 - Legal mandate defining roles (e.g. MRiT: enterprise uptake, Digital Affairs: infrastructure/skills)
 - Shared data systems and formal inter-agency agreements
 - Unified online portal for SMEs (one-stop access to all digital programs)
- ✓ **Monitoring & Evaluation:**
 - Establish a SME Digitalization Observatory
 - Launch annual SME Digital Transformation Barometer by 2026

Introduce Regulatory Sandboxes for Digital Innovation

- ◆ To complement existing programs like Smart Pathway and Dig.IT, Poland should establish targeted regulatory sandboxes that allow SMEs and startups to pilot innovative digital solutions under a temporarily relaxed regulatory environment. Key considerations:
 - ✓ **Scope of Sandboxes:** Sandboxes could be introduced in areas where existing regulations may unintentionally hinder innovation, such as fintech, e-health, smart manufacturing, or logistics. These domains are aligned with current national and EU policy priorities, including the Digital Decade.
 - ✓ **Design and Oversight:** Sandbox programs should be administered jointly by sectoral regulators and innovation-supporting agencies such as the Ministry of Development and Technology (MRiT), BGK (Bank Gospodarstwa Krajowego), and ARP (Industrial Development Agency). Lessons from Korea show that a multi-agency sandbox governance model allows companies to trial cross-sectoral innovations—those spanning, for example, data protection and industrial equipment—without legal ambiguity. The MRiT could coordinate the design, while sector-specific regulators retain supervisory authority. Sandbox trials should be time-bound, limited in scope, and subject to predefined monitoring and feedback loops.
 - ✓ **Building on Existing Ecosystem:** The sandbox mechanism would complement Poland's FENG programs by supporting companies whose projects push the boundaries of existing legal frameworks. For instance, an SME that develops a novel AI solution under a Dig.IT grant but faces regulatory uncertainty (e.g. GDPR compliance in algorithmic decision-making) could apply for a sandbox permit to test its solution safely. Similarly, a manufacturer developing an IoT-enabled production line with Smart Pathway support could use the sandbox to validate compliance with certification standards.
 - ✓ **Launching one or two sandboxes quickly** – For example, a FinTech Sandbox under the financial supervisor and an Industry 4.0 Sandbox under the economy and Technology Ministry, MRiT – would signal Poland's commitment to innovation. These require minimal funding (mostly administrative costs) but can yield high returns by allowing SMEs to develop and refine cutting-edge services in a safe environment.

Launch a Digital Transformation Coordinators Program

- ◆ Poland should establish a national Coordinator Support service to guide SMEs—especially in manufacturing and services—through their digital transformation. Building on Korea’s model, this program can be integrated with existing Polish initiatives such as **Dig.IT**, **Smart Pathway**, and **European Digital Innovation Hubs (EDIHs)**. Delivered through institutions like **ARP, PARP, or EDIHs**, certified digital advisors would provide **5–6 sessions per SME**, covering
 - ✓ **Readiness Assessment:** Using standardized tools (e.g. from Dig.IT), advisors would evaluate digital maturity and identify needs
 - ✓ **Roadmap Development:** Align technology recommendations with business goals and Smart Pathway modules.
 - ✓ **Match with solution providers:** Connect the SME to qualified tech vendors or system integrators that can deliver the needed solution. The advisor would maintain a network of vetted providers (see the Recommendation in the next slide).
 - ✓ **Support implementation and training:** Offer light-touch consulting during rollout – helping resolve operational issues, ensuring staff are trained, and planning for maintenance.
 - ✓ The program would be publicly funded (e.g. via FENG technical assistance) to ensure accessibility. It complements existing tools by adding personalized, on-site assistance and captures field-level insights to inform national policy. This approach enhances SME uptake of digital tools while reinforcing alignment with Poland’s broader innovation agenda.

Implement a “Smart Service Voucher” and Matching Scheme

Poland should introduce a Smart Service Support scheme to accelerate SME digitalization, building on Korea’s voucher-based model while aligning with current tools such as **Dig.IT** and the modular structure of **Smart Pathway** under FENG. The scheme would offer **co-financing for digital solution adoption**, structured around the following features:

- ✓ **Consortium Application:** SMEs jointly apply with certified tech providers—e.g. IT firms, SaaS vendors, system integrators—to implement tailored digital solutions. This mirrors the collaborative structure used in both Dig.IT and Smart Pathway.
- ✓ **Pre-Registered Providers Pool:** Maintain a registry of certified solution suppliers from which SMEs can choose partners. Korea’s program mandates that any supplier must be registered in the “Smart Service provider pool” prior to application. Poland can similarly vet and list providers (IT companies, SaaS vendors, systems integrators, etc.) based on criteria like technical capability, product quality, security and GDPR compliance. The registry should remain open for new entrants (e.g. allow firms to enroll online and be verified within a short period), to encourage competition and innovation. This could build on or integrate with Dig.IT’s advisory network and FENG’s existing selection mechanisms.
- ✓ **Voucher-Based Public Co-Funding:** Offer a public subsidy (for example, covering 50% of project costs up to a cap) to lower the financial barrier for SMEs. By using vouchers (grants given directly to SMEs), Poland avoids complex public procurement – the SME selects the provider from the pool, and the government reimburses part of the cost, ensuring alignment with EU procurement and competition rules.
- ✓ **Integration with Consulting:** SMEs that complete digital readiness consulting under Dig.IT or EDIH programs would receive priority or bonus points when applying. This ensures that supported projects are implementation-ready and aligned with national digitalization priorities.

Establish a Digital Solutions Provider Registry and Innovation Network

- ◆ Poland should formalize a national network of certified digital solution providers to enhance SME access to trusted technologies. This network would underpin the voucher-based support schemes and extend the current Dig.IT advisory structure and Smart Pathway consortia.
- ✓ **Certified Provider Directory:** Create and maintain an open-access registry of pre-approved tech vendors (software, cloud, IoT, automation), assessed for GDPR compliance, cybersecurity, and technical quality. This expands on Dig.IT's consulting support and can be aligned with national and EU-level quality standards.
- ✓ **Public–Private Partnerships:** Involve industry associations (e.g. IT/ICT industry groups, chamber of commerce) in outreach. They can encourage capable local tech firms to join the provider pool, and help disseminate information on available support to their SME members.
- ✓ **Knowledge Sharing Platform:** Korea's approach included networking events to share best practices among participating firms. Poland can create a digital platform or forum (possibly integrated with existing EU programs) where SMEs can learn from case studies, and solution providers can showcase successful projects. This helps spread innovation in a peer-to-peer fashion.
- ✓ **Leverage EU Digital Innovation Hubs:** Poland already hosts eleven European Digital Innovation Hubs (EDIHs) co-funded by the EU (with €23 million budget) to support SME digitalization. These hubs offer "test before invest" facilities, training, and advisory services. The national program should coordinate with EDIHs – for example, an SME could first experiment with a technology at a hub, then use the voucher to buy it for their business. Similarly, EDIHs could help maintain the provider registry or train the coordinators. Aligning national efforts with EU initiatives ensures no duplication and amplifies the support available to firms, all while staying within EU frameworks on data and technology standards.

Design Smart factory Initiative in Poland

- ✓ **Establish a National Smart Manufacturing Roadmap** : Poland should define a clear strategic roadmap for SME smart manufacturing through 2030. This roadmap must set measurable targets, such as the number of SMEs achieving Industry 4.0 readiness, and identify responsible ministries and partners. A dedicated national program with legal standing—similar to Korea's Smart Manufacturing Innovation Act—would ensure policy continuity, cross-ministerial coordination, and accountability.
- ✓ **Introduce a Tiered Support System Based on SME Digital Maturity** : Not all SMEs are at the same level of technological readiness. A tiered support model should be adopted, offering:
 - Basic-level firms**: access to small grants or soft loans for simple automation tools and safety improvements;
 - Intermediate-level firms**: co-financing for ERP/MES integration, IoT sensors, and production optimization systems;
 - Advanced-level firms**: support for flagship "model factories" applying AI, digital twins, and full data integration.
- ✓ **Strengthen SME Capabilities through Consulting and Workforce Development** : Digital transformation is not only about equipment—it requires internal capacity. Poland should offer publicly funded diagnostics and on-site digital consulting to help SMEs plan transformation pathways. In parallel, a national smart manufacturing training initiative should upskill thousands of workers and managers in industrial IT, data analytics, and automation maintenance.
- ✓ **Foster a Domestic Ecosystem of Smart Manufacturing Solution Providers** : A robust ecosystem of local tech vendors is essential. Poland should support the development of domestic solution providers—automation integrators, IoT developers, software engineers—through R&D grants, capability assessments, and government certifications. Public-private co-innovation hubs can facilitate pilot projects and cross-sector collaboration. Transparent disclosure of provider performance can build trust and reduce information asymmetries in the market.
- ✓ **Activate Large-Small Industry Collaboration Mechanisms**: Large industrial firms and multinationals operating in Poland should be engaged as digital transformation enablers. A "large-small alliance" program can encourage them to mentor or co-invest in upgrading SME suppliers. Incentives such as tax deductions or public recognition can reward such participation. Industry associations should also be activated to aggregate digital solution demand and promote group purchasing to lower costs for SMEs.

Foster Industry–Academic Partnerships and Regional Innovation Hubs

- ✓ Expand **Digital Innovation Hubs (DIHs) and Living Labs** tied to local industry strengths (e.g. fintech in Warsaw, AI in Kraków, etc.).
- ✓ Launch **university–SME collaboration schemes** (e.g. digital internships, applied R&D funding, 'AI for SMEs' pilot programs).
- ✓ Promote **large–small enterprise digital partnerships** with incentives (e.g. supplier mentorship, tax credits, recognition awards).
- ✓ Establish **regional innovation funds aligned with smart specializations; support localized startup ecosystems**.
- ✓ Develop continuous **digital skills programs and voucher schemes for SME employee training** (e.g. AI literacy, digital leadership).
- ✓ Introduce **AI Leadership Bootcamps** and peer learning for microenterprise owners, linked to digital maturity assessments.
- ✓ Create **regional AI specialization hubs** (e.g. Gdańsk for logistics AI, Wrocław for industrial AI) to anchor innovation clusters.
- ✓ **Strengthen ecosystem linkages** to embed SMEs in networks with academia, hubs, and corporates for sustained digital growth.

Enhance Funding Instruments and Incentives for Microenterprises

- ✓ **Micro-Grants for Digital Start:** Small, easy-access grants (€5–10k) for first digital tools (e.g. POS, website), with minimal paperwork and quick disbursement..).
- ✓ **Micro-Loans & Guarantees:** Low-interest loans (up to €20k) with BGK guarantees; match microenterprises with certified tech providers; allow joint applications.
- ✓ **Structured Progression Pathway:** 3 stages: Digital Foundation → Data Readiness → AI Integration
- ✓ **Tax & AI Incentives:** Fast-track depreciation and tax deductions (150%) for digital/AI spending; explore social security offsets for certified upgrades. Develop continuous digital skills programs and voucher schemes for SME employee training (e.g. AI literacy, digital leadership).
- ✓ **Turnkey AI Packages & Training:** Pre-configured AI tools requiring minimal tech knowledge; local AI literacy programs via chambers of commerce.
- ✓ **Microenterprise Support Hub:** A dedicated local coordination unit offering: One-stop guidance, Technical assistance, Integration of grants, loans, tax, and training
- ✓ **Simplified Access & Outreach:** Mobile-friendly applications, trust-based auditing, and outreach through local governments and trade groups.to embed SMEs in networks with academia, hubs, and corporates for sustained digital growth.
- ✓ **Monitoring & Feedback:** Simple metrics to track impact, business improvements, and lessons learned; annual assessments and a shared success platform.

THANK YOU

