



Semiconductor Ecosystem SOUTH KOREA

Main Stakeholders

POLICYMAKING

1. National Research Foundation of Korea
2. Ministry of Science, ICT
3. Ministry of Trade, Industry and Energy (MOTIE)
4. Korean Ministry of SME and Startups
5. Korea Chamber of Commerce and Industry

RESEARCH ORGANISATIONS

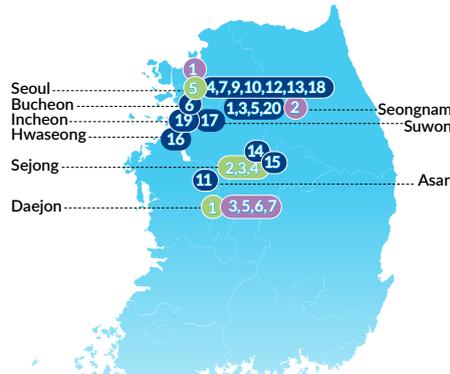
1. Korea Institute of Science and Technology (KIST)
2. Korean Electronics Technology Institute (KETI)
3. Electronics and Telecommunications Research Institute (ETRI)
4. Semiconductor Fabrication Supports
5. National NanoFab Center (NNFC)
6. Korea Advanced Nano Fab Center (KANC)
7. Korea Institute of Machinery & Materials (KIMM)

INDUSTRY ASSOCIATIONS

1. Korea Semiconductor Industry Association (KSIA)
2. Korea Electronics Association (KEA)

INDUSTRY (NON-EXHAUSTIVE)

3. ADTechnology (Design Services for SoC solutions)
4. Anapass (Display driver ICS, High-Speed interface solutions)
5. BOS Semiconductors (Fabless, Automotive chiplets for autonomous driving)
6. DB Hitek (Foundry services, specialized in automotive and power management ICs)
7. DI Corporation (Test systems for memory and logic devices)
8. DOOSAN Group (Electronic materials, CCL, OLEDs, semiconductor materials)
9. DONGJIN SEMICHEM (Photoresists, CMP slurries)
10. Hanwha Group (Semiconductor equipment, automation, defense)
11. Hana Micron (Assembly, packaging, testing services)
12. Hyundai Motor Group (Autonomous driving chips, partnerships with Samsung and KIA)
13. LG Corp. with LG Electronics and LG Innotek (Consumer electronics, IoT, semiconductors, robotics)
14. Magnachip Semiconductor (Analog and mixed-signal Semiconductors)
15. NEPES (Semiconductor packaging and testing services)



16. PSK (Semiconductor processing equipment)
17. Samsung Corp. with Samsung Foundry (Semiconductor manufacturing, displays, 5G, consumer electronics, HPC Chips, automotive)
18. Silicon Works (LX Semicon) (Design, display driver ICs for TVs and mobile devices)
19. SK Group with SK Hynix and SK Siltron (DRAM, NAND flash memory, silicon wafers, AI and HPC memory Solution, Packaging/Testing)
20. Telechips (System-on-a-chip, automotive)

Funding Instruments

- The K-Chips Act raises facility investment tax credits for semiconductor firms to 20% for large/medium and 30% for small enterprises. It also extends R&D tax credit eligibility by five years (to 2029) for key technologies, and by seven years (to 2031) for semiconductor R&D. [12].
- Up to 50% in R&D Tax Credits
- Boosting prototype production, Korea aims to grow 10 fabless firms with KRW 1 trn. (\$730 million) in sales. [13], [14].
- Investment Tax Credits for manufacturing investments [15]
- Provision for training high-tech professionals and potential discharge of mandatory military service for research personnel in the field [16]
- Support for start-ups of KRW 3.294 trn. (approx. \$2.23 bln.), by the government and local governments in 2025 [17], [18]

Chip Strategy

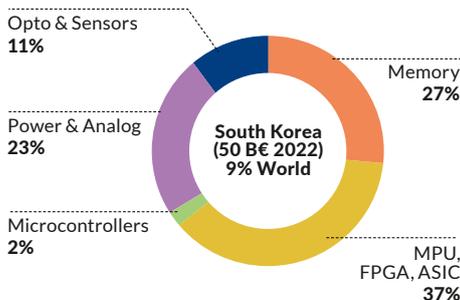
K-semiconductor belt with the K-Chips Act passed first on March 30, 2023 and renewed in Feb. 27, 2025

- Objective: approx. € 62 bln. (100 trn. Won) in semiconductor & AI supported by Korean Development Bank for 3 years [1], [2], [3]
- Doubling the Workforce [4]
- Attract a cumulative investments of 622 trn. Won (approx. €430 bln.) for a semiconductor megacluster by 2047, with Samsung and SK Hynix are the biggest investors [5]
- Self-Sufficiency: Goal to achieve 50% self-sufficiency in key materials, parts, and equipment by 2030 [6]
- Energy Laws: Focus on expanding the power grid, managing radioactive waste, and promoting off-shore wind power to ensure stable energy for the semiconductor sector [7]
- Focus on Non-Memory: Expanding into logic semiconductors and Fabless firms, diversifying from flash memories.
- Fabs & Complexes: New fabs and national advanced industry complexes under development [8], [9]
- Semiconductor Capacity: Half of South Korea's capacity is focused on the 10-20nm range. Samsung is one of the few producing below 6nm.
- Samsung Foundry: Unveiled automotive process solutions under the Chips-Act, ranging from 2nm to advancements in the 8-inch wafer technology legacy.
- Special Act: Measures and regulations to protect and foster the national high-tech industry [10]
- Future Goals: 1.4nm technology by 2027 [11]

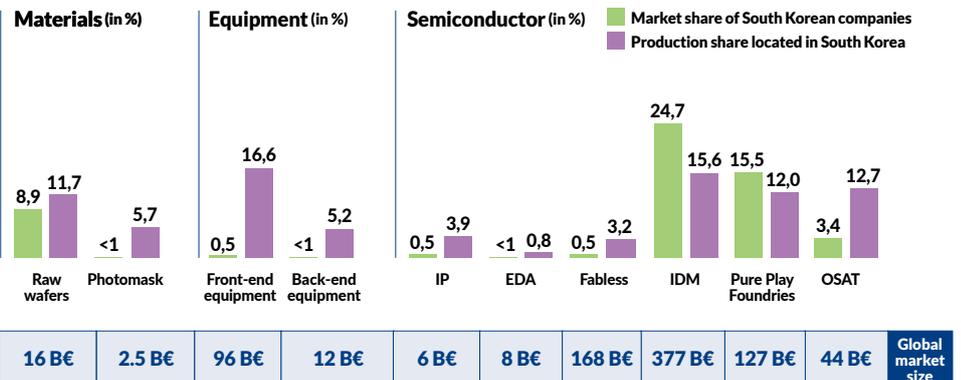
Relations with the EU

- The Republic of Korea - EU Digital Partnership was announced jointly by President von der Leyen and President Yoon on 28 November 2022 [19]
- Since 2025 South Korea is partner of the Horizon Europe programme [20]
- Strategic project funds with national EU partners [21]
- Republic of Korea-EU Joint Scientific and Technological Cooperation Committee meeting [22]
- Approx. €6 million (approx. 9.8 bn. Won) from the Chips JU for collaborations and a similar amount from the National Research Foundation of Korea [23]

Demand by application



Market and Production Share



Source: DECISION Etudes & Conseil

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