



Regulatory Comparison of Advanced, National Core, and Strategic Technologies

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1. Definitions by Technology Category and Relevant Legislation

- Advanced Technology refers to technology with a high degree of technology intensity and a rapid pace of innovation, as designated and publicly notified by the Minister of Industry, Trade, and Resources (hereinafter referred to as "the MOTIR Minister") pursuant to Article 5 of the *Industrial Development Act*. Technologies designated and publicly notified as Advanced Technologies are protected under the *Act on Prevention of Divulgence and Protection of Industrial Technology* (hereinafter referred to as the "Industrial Technology Protection Act") and are eligible for related support measures (such as tax benefits in special R&D zones, cash grants for foreign investment, E-7 visas for foreign employees, etc.).
- National Core Technology refers to technology that holds significant technological and economic value in domestic and international markets or has substantial growth potential in the relevant industry, and which, if leaked abroad, may cause serious adverse effects on national security or the national economy. Such technologies are designated and publicly notified by the MOTIR Minister pursuant to Article 9 of the *Industrial Technology Protection Act*. In other words, industrial technologies with major security or economic importance are designated as core technologies, and once designated, they become subject to various protective measures as well as export and transfer restrictions.
- National Advanced Strategic Technology (hereinafter referred to as "Strategic Technology") refers to technology that has a significant impact on national and economic security, such as supply chain stabilization, and that produces considerable economic effects, including exports and employment, as well as substantial spillover effects on related industries. These technologies are designated and publicly notified by the MOTIR Minister pursuant to Article 11 of the *Act on Special Measures for Strengthening the Competitiveness of, and Protecting National High-Tech Strategic Industries* (hereinafter referred to as the "National Advanced Strategic Industries Act"). The list of Strategic Technologies is updated annually in advanced industries sectors such as semiconductors, displays, secondary batteries, biotechnology, robotics, and defense.
- Although National Core Technologies and National Advanced Strategic Technologies are generally selected from the list of Advanced Technologies, the designation purposes for each differ. Therefore, characterizing one category as encompassing the other would be inaccurate.

2. Designation Procedures and Legal Effects

- **Advanced Technology:** Approximately every 2–3 years, the MOTIR Minister reviews industrial demand and the potential spillover effects of technologies, and then revises and finalizes the scope of Advanced Technologies through a public notice. Companies may apply to MOTIR for confirmation that their technologies qualify as “Advanced Technologies” and receive a confirmation certificate. Technologies so certified are deemed protected industrial technologies under the *Industrial Technology Protection Act* and become eligible for various benefits, including corporate tax reductions and cash grants.
- **National Core Technology:** The MOTIR Minister designates and publicly notifies a list of core technologies in each sector following deliberation by the National Core Technology Committee, which consists of representatives from industry, academia, and research institutes. Most recently (May 2025), three new technologies in areas such as electronics and aerospace were added, and certain existing items were revised. Companies holding technologies designated as National Core Technologies must register as institutions possessing such technologies, making them subject to the *Industrial Technology Protection Act*. They are also required to obtain approval or submit reports when transferring such technologies abroad.
- **Strategic Technology:** Each year, following deliberation by the National Advanced Strategic Industry Committee, specific technologies in advanced industry sectors are designated and publicly notified. On June 17, 2023, 17 technologies were designated, and in 2025, two additional technologies in the robotics and defense industries were newly designated. Technologies designated as Strategic Technologies are subject to protection and promotion measures under the National Advanced Strategic Industries Act, as well as regulations concerning the prevention of technology leakage and the attraction of investment.

3. Key Regulatory Comparisons (Export, Overseas Acquisition, Transfer Abroad, Investment/M&A)

- **Advanced Technology:** There are no separate export control regulations specifically applicable to Advanced Technology. Once certified as Advanced Technology, the relevant technology is protected as "industrial technology" under the *Industrial Technology Protection Act*. However, unless also designated as National Core Technology, it does not fall within the scope of export or transfer controls under that Act.
- **National Core Technology:** Companies holding National Core Technologies must obtain prior approval from the MOTIR Minister if government funding was received for its R&D, or file a report if no such governmental funding was received, before transferring such technologies abroad, selling them, licensing them, or conducting joint research with foreign entities. They are also required to obtain approval or file a report when engaging in foreign investment activities, including overseas mergers and acquisitions (M&A) or joint ventures. The MOTIR Minister may order the suspension, prohibition, or reversal of exports or overseas M&A involving National Core Technologies, and violations may result in the imposition of a daily penalty of up to KRW 10 million. Furthermore, companies holding National Core Technologies must adopt protective measures such as establishing protected zones for technological facilities, managing research personnel, and executing confidentiality agreements. Examples of "export" and "overseas M&A" as defined in the Enforcement Decree of the *Industrial Technology Protection Act* and the *Industrial Technology Protection Guidelines* (MOTIR guidelines) are as follows:

✓ **Export:** ① sale of National Core Technologies to foreign companies, etc., ② transfer of National Core

Technologies to foreign companies, etc., through data transmission, assignment, technical guidance, commissioned research or production, and long-term personnel dispatch, ③ activities such as seminars, lectures, and academic presentations conducted with specific institutions which effectively lead to the transfer or sharing of National Core Technologies with foreign entities, ④ participation in research or joint research with foreign companies that effectively results in the transfer or sharing of National Core Technologies (including international joint research projects related to National Core Technologies funded by foreign companies), ⑤ transfer of patents pertaining to National Core Technologies or granting of licenses accompanied by the transfer or related trade secrets or other confidential technologies, ⑥ transfer of patents or establishment of exclusive licenses that effectively confer substantial exclusive control over the relevant technologies to the transferee or licensee, ⑦ provision of research service data to foreign governments or institutions for the analysis of design or manufacturing defects, feasibility, or reliability of National Core Technologies to foreign governments or institutions, ⑧ provision of technical materials for overseas certification, licensing, or approval related to National Core Technologies to foreign governments or institutions, ⑨ provision of National Core Technology materials in litigation before foreign courts or the US International Trade Commission (ITC), ⑩ granting foreign companies access to, viewing, or using National Core Technologies stored in cloud or similar services, ⑪ re-transfer of National Core Technologies to newly established overseas facilities (e.g., factories) of foreign affiliates that previously received them through export approval, and ⑫ any other method of exporting National Core Technologies not specifically enumerated above.

✓ **Overseas mergers and acquisitions:** ① where a foreign national, either independently or in conjunction with (1) relatives within a certain scope or (2) a company over which the foreign national exercises dominant influence over major decision-making or business execution, or has the authority to appoint or dismiss representatives or appoint 50% or more of the executives through a contract or agreement with major shareholders or equity holders, intends to acquire 50% or more of the shares or equity interests* (hereinafter referred to as "shares, etc.") of an entity holding National Core Technologies, or intends to acquire less than 50% but becomes the largest shareholder and gains dominant influence over executive appointments or management, ② where a foreign national intends to manage an entity holding National Core Technologies by acquiring, leasing, or assuming a substantial part of its business, or by being entrusted with its management, and ③ where a foreign national lends or contributes funds to an entity holding National Core Technologies, thereby gaining dominant influence over the appointment of a majority of its executives.

*This also covers rights convertible into or entitlement to acquire shares or equity interests in the future.

- **Strategic Technology:** Under the *National Advanced Strategic Industries Act*, protective measures for Strategic Technologies are applied in parallel with those under the *Industrial Technology Protection Act*. Accordingly, export and overseas M&A involving Strategic Technologies are subject to similar restrictions. However, several key differences exist compared to the regulations governing National Core Technologies: ① The export and overseas M&A of Strategic Technologies are subject to approval regardless of whether they have received R&D funding from the government; ② Unlike in the case of national cores technologies, there is no system of daily penalty (administrative enforcement fines) for non-compliance with suspension, prohibition, or restoration orders, ③ additional obligations apply, including the designation of specialized personnel handling Strategic Technologies, restrictions on job changes, mandatory confidentiality agreements, and procedures for requesting the provision of immigration information.

4. Comparison Table of Regulatory Intensity and Support Benefits

| Technology Category | Regulatory Intensity | Key Protection Measures | Government Support Benefits |
|---|--|---|--|
| Advanced Technology (<i>Industrial Development Act</i>) | <i>Low</i> : No approval required for export or other transfers | No obligation to establish protected zones or manage research personnel | Tax, funding, and human resource support (e.g., tax reductions in designated zones, cash grants for foreign investment, E-7 visas, etc.) |
| National Core Technology (<i>Industrial Technology Protection Act</i>) | <i>High</i> : Prior approval/notification required for exports and overseas M&A. Administrative enforcement: fines imposed for non-compliance with suspension, prohibition, or restoration orders. | Obligations imposed on designated companies to establish protected zones and implement protective measures for facilities and personnel. | No direct support (primarily aimed at preventing technology leakage) |
| Strategic Technology (<i>National Advanced Strategic Industries Act</i>) | <i>High</i> : Approval required for exports and overseas M&A regardless of receipt of government R&D funding. No administrative enforcement; fines imposed system for non-compliance. | Same obligations as under the Industrial Technology Protection Act apply. Additional requirements for managing and controlling specialized personnel. | Government support measures provided, including tax incentives (generally more generous than those for National Core Technologies) |

5. Implications

Technology classification determination: Companies should assess in advance whether their technologies fall within the categories of Advanced Technology, National Core Technology, or Strategic Technology. Where the classification is uncertain, a determination request should be submitted to the competent authority to proactively evaluate potential regulatory risks associated with the technologies held.

Regulatory Compliance Preparation: If a company's technology is designated as a National Core Technology or a Strategic Technology, or newly designated as such, it must comply with the approval/notification requirements and protection obligations applicable to exports and overseas M&A. Except in limited cases where exemptions apply,

required committee deliberations and related procedures may take time; accordingly, companies should incorporate these regulatory timelines into their transaction schedules. Where a technology falls under both National Core Technology and Strategic Technology categories, compliance under both statutes must be reviewed. However, approval obtained under the *National Advanced Strategic Industries Act* for the export or overseas M&A of a Strategic Technology is deemed to fulfill the corresponding approval requirement under the *Industrial Technology Protection Act* for corresponding National Core Technology – thereby preventing duplication of procedures.

Utilization of support systems: Companies holding Advanced or Strategic Technologies should assess their eligibility for government support programs and actively consider applying to maximize available benefits.

Monitoring of legislative and regulatory amendments: Because the government regularly updates public lists to reflect industrial developments, companies must maintain ongoing monitoring and internal oversight. In light of the progressive tightening of export and overseas M&A regulations, it is also essential to track amendments to relevant laws and regulatory notices.

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Shin & Kim LLC's Industrial Technology Protection Center is composed of former officials of the Ministry of Trade, Industry and Resources, and sector-specific experts including attorneys with dual qualifications (e.g., pharmacists, patent attorneys, former presiding judge of the Patent Court). The team also includes criminal defense attorneys with extensive experience leading or investigating industrial technology and trade secret leakage cases with the police or the prosecutor's office, as well as digital forensic specialists. Through in-depth industrial technology expertise, a solid legal analysis, and cross-disciplinary collaboration, the Industrial Technology Protection Center provides optimal solutions to meet our clients' diverse needs in relation to industrial technologies and trade secrets.

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