



Connecting Continents, Securing Futures: The ROK-NL Partnership Amid Global Shifts

A position paper building on the ROK-NL Forum 2025

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Executive Summary

Rooted in centuries of exchange and strengthened by recent advances in diplomacy, technology, and security cooperation, the ROK-NL bilateral relationship has developed into a practical partnership equipped to address global challenges. Both countries share democratic values, strong innovation ecosystems, and complementary industrial strengths, especially in semiconductors, maritime logistics, and digital infrastructure. Building on the momentum of the inaugural 2025 ROK-NL Forum, the paper zooms in on three key pillars of cooperation and their mutual learning opportunities: global security, artificial intelligence and emerging technologies, and high-tech industry cooperation.

To operationalise an elevated partnership, the paper provides an agenda of key recommendations, including enhancing defence and cybersecurity cooperation, institutionalising cross-border educational programmes, accelerating clean technology partnerships, and expanding maritime innovation. It also calls for the ROK-NL Forum to become an annual Track 1.5 platform for structured dialogue, bridging official policy dialogue with expert and industry input. A jointly developed strategic agenda – monitored through regular interinstitutional meetings – should guide this effort, translating mutual trust into measurable outcomes and binding commitments.

In a shifting global order marked by geopolitical fragmentation and technological disruption, the ROK and the Netherlands are uniquely positioned to move from convergence to co-leadership. The Strategic Partnership Agreement signed in 2022 was a decisive first step; now, both governments must commit to a long-term agenda of joint action. This includes embedding bilateral cooperation into national strategies, scaling cross-border innovation platforms, and co-developing governance frameworks that shape the future of emerging technologies and global security.

By further operationalising their strategic partnership through joint action, policy innovation, and institutional trust-building, the ROK and the Netherlands can shape a forward-looking model of agile, principled cooperation between Europe and the Indo-Pacific.

Though geographically distant, both countries share a commitment to open societies, liberal democracies, and resilient economies underpinned by innovation and technological leadership.

Introduction

Ever since Jan Janszoon Weltevree and Hendrik Hamel, two shipwrecked Dutch sailors, integrated into Korean society in the 1600s, a centuries-long history of Dutch-Korean exchange was ushered in.¹ The Netherlands and the Republic of Korea (ROK) have long been multifaceted partners. During the Korean War, over 5,300 Dutch troops supported the ROK.² Later, when the Korean government created the Korea Trade-Investment Promotion Agency (KOTRA) in 1966, they opened their first European office in Amsterdam.³ Some decades later, the first Korean school in the Netherlands opened its doors in Amsterdam in 1993.⁴ In 2002, a Dutch football coach named Guus Hiddink led the ROK to a historic World Cup semifinal, becoming a national hero. In recognition, he was granted honorary citizenship, and Gwangju Stadium was renamed “Guus Hiddink Stadium.” This historic moment resonated in both the ROK and the Netherlands, foreshadowing the start of a flourishing relationship shaped by shared values and mutual respect.⁵ In recent years, cultural initiatives, academic exchanges, and industrial cooperation have further strengthened bilateral ties, culminating with the announcement of a formal Strategic Partnership Agreement in 2022.⁶

Building on a track record of multifaceted exchange, the ROK and the Netherlands are well-positioned to form a deeper strategic partnership. Though geographically distant, both countries share a commitment to open societies, liberal democracies, and resilient economies

¹ Jan Janszn. Weltevree Pak Yon, “Geschiedenis - Jan Janszn. Weltevree (1595-1657),” Jan Janszn. Weltevree Pak Yon, accessed June 18, 2025, <https://www.janjansznweltevree.nl/nl/geschiedenis-jan-janszoon-weltevree.html>.

² Korean Ministry of Patriots and Veterans Affairs, “Background of Participation and Activity of Each Forces,” accessed June 18, 2025, <https://www.mpva.go.kr/english/contents.do?key=1313>.

³ Korea Trade Center Amsterdam, “Korea Trade Center Amsterdam,” LinkedIn, accessed June 20, 2025, <https://nl.linkedin.com/company/kotra-amsterdam>.

⁴ Korean School of Amsterdam, “History,” Korean School of Amsterdam, accessed June 20, 2025, <https://www.koreanschool.nl/ko/%ed%95%99%ea%b5%90%ec%97%b0%ed%98%81/>.

⁵ Chris Bakker, “Eternal Korean Hero Guus Hiddink,” HanzeMag, April 10, 2017, <https://hanzemag.com/eternal-korean-hero-guus-hiddink/>.

⁶ Ian Yang, “South Korea,” DutchCulture, accessed June 20, 2025, <https://dutchculture.nl/en/country/KR>; Ministry of Foreign Affairs of the Netherlands, “Joint Statement between the Government of the Republic of Korea and the Government of the Kingdom of the Netherlands,” December 13, 2023, <https://www.government.nl/documents/diplomatic-statements/2023/12/13/joint-statement-between-the-government-of-the-republic-of-korea-and-the-government-of-the-kingdom-of-the-netherlands>.

underpinned by innovation and technological leadership.⁷ With converging interests in security, digital governance, and global trade, reinforced by aligning and complementary values, this paper considers shared interests and values, identifies opportunities for cooperation, and offers recommendations for the ROK and the Netherlands to seize these opportunities. It articulates why closer ROK-Netherlands alignment is not only desirable but necessary in a shifting world order. It highlights the potential for mutual learning, policy innovation, and joint international leadership. Concluding with targeted policy recommendations, the paper urges both governments to translate shared outlooks into sustained action – anchoring the bilateral relationship as a model for agile, principled cooperation in the 21st century.

The paper builds on the outcomes and spirit of the ROK-NL Forum 2025, a platform established to deepen bilateral dialogue and cooperation between the Republic of Korea and the Netherlands. Organised by The Hague Centre for Strategic Studies and the Korea Foundation, the forum invites policymakers, experts, and civil society leaders from both countries. While fostering mutual understanding, this symposium develops actionable pathways for collaboration across shared strategic interests. The inaugural edition, held on 23 April 2025, featured three thematic panels addressing global security cooperation, artificial intelligence and emerging technologies, and high-tech industry partnerships.

This paper thus collects the insights gained during the forum and supplements them with original research highlighting the multifaceted opportunities for ROK-Netherlands cooperation.

⁷ Embassy of the Republic of Korea to the Kingdom of the Netherlands, “Joint Statement between the Government of the Republic of Korea and the Government of the Kingdom of the Netherlands,” December 13, 2023, <https://overseas.mofa.go.kr/nl-en/index.do>.

Table 1 - The ROK-NL Partnership: Facts and Figures**Politics and security:**

- Diplomatic ties were first established in 1961.
- A comprehensive Strategic Partnership Agreement was concluded in 2022.
- The Dutch Coalition for Defence & Security in the ROK was established in 2023.
- In 2023, a Dutch-Korean semiconductor alliance was announced during the Korean Presidential visit to the Netherlands.
- The Netherlands and the ROK started co-hosting the summit on Responsible AI in the Military Domain (REAIM) in 2024.
- In 2024, the first bilateral ROK-NL Security Consultation took place in Seoul.
- The Netherlands and the ROK are both members of several major international organisations: UN, IAEA, IMO, OPCW, ICC, INTERPOL etc. The two countries also both contribute to NATO, the Netherlands as a member and the ROK as a Global Partner.
- They are also active participants in a number of defence-related frameworks and initiatives such as the 1996 Wassenaar Arrangement on export controls for conventional arms and dual-use goods and technologies, the Proliferation Security Initiative (PSI), The Hague Code of Conduct against Ballistic Missile Proliferation (HCoC), the Global Coalition against Daesh, etc.
- Contributing to UN Command, the Netherlands has sent 3 military personnel to the ROK since January 2025 to take part in the security of the Korean peninsula.

Economy:

- The Netherlands is the ROK's second-largest trading partner in Europe and the ROK ranks as the Netherlands' third-largest trading partner in Asia.
- Dutch exports to the ROK reached \$10.2 billion in 2024 and Korean exports to the Netherlands totalled \$6.78 billion.
- Dutch imports from the ROK amounted to \$5.07 billion in 2024 and Korean imports from the Netherlands stood at \$564 million.
- Foreign direct investment (FDI) shows high year-to-year variation on both sides. The ROK invested \$289 million in the Netherlands in 2023. In 2021, investment peaked at \$914 million. 37% of the ROK's FDI came from the EU in 2021, with the Netherlands accounting for 33% of that amount.
- Major Dutch imports from the ROK in 2024: vehicles, electrical/electronic equipment, machinery, organic chemicals, and plastics.
- Major Korean imports from the Netherlands in 2024: machinery, nuclear reactors, boilers, medical and technical apparatus, pharmaceutical products, inorganic chemicals, and precious metal compounds.
- The ROK and the Netherlands collaborate in strategic sectors like agrifood, high tech, chemicals, sustainable energy, and life sciences.
- The Netherlands and the ROK are both members of several major international organisations: WTO, IMF, World Bank, G20, Asia-Europe Meeting, etc.
- In 1966, the ROK established the Korea Trade-Investment Promotion Organization (KOTRA) and appointed Amsterdam to host the first office.

Culture:

- The ROK has been identified as one of the priorities in Dutch international cultural policy since 2017.
- Major initiatives include the NEDxPO programme hosted at the 2018 Pyeongchang Winter Olympics, the Dutch design showcase at the Seoul Design Festival, the Rijksakademie Fellowship in Seoul, and the Korean Culture Festival in Amsterdam (September 2024).
- International Arts Joint Fund (2021-2022) between DutchCulture and Arts Council Korea, marking the 60th anniversary of diplomatic relations.
- Long-term collaboration between Arts Council Korea and Dutch academies (Rijksakademie, Jan van Eyck Academy) providing residency to Korean artists.
- By 2027, Rotterdam will be the first European port to host a K-food cold chain logistics centre.

The Dutch-Korean axis: An evolving partnership for global resilience

Amid shared geopolitical concerns and a mutual drive for technological progress, the ROK and the Netherlands are drawing closer. Strengthened by the ROK's ties with the EU – particularly in the high-tech sector – their relationship reached a new milestone with the 2022 Strategic Partnership Agreement.⁸ This deepened cooperation in security, trade, and culture, reaffirming shared liberal values and a commitment to the rules-based international order.⁹ The partnership also builds on complementary strengths in advanced technology and mutual concerns over supply chain resilience. As a result, ROK-NL collaboration now spans critical areas such as security, AI, and innovation – fields central to meeting 21st-century global challenges.¹⁰

Navigating global security challenges: ROK-NATO policy and the Russian-Ukrainian war

Security cooperation between the Republic of Korea and the Netherlands is rooted in shared democratic values and a mutual commitment to international peace, stability, and the rule of law.¹¹ Both nations face similar geopolitical concerns, including US foreign policy shifts, China's assertiveness, and the broader risks of nuclear proliferation by North Korea and its involvement in the Ukraine war.¹²

⁸ Government of the Netherlands, "Joint Statement on the Establishment of a Strategic Partnership between the Government of the Republic of Korea and the Government of the Kingdom of the Netherlands," November 23, 2022.

⁹ Benedetta Girardi, Paul van Hooft, and Alisa Hoenig, "Getting Them On Board: Partners and Avenues for European Engagement in Indo-Pacific Maritime Security" (The Hague, Netherlands: The Hague Centre for Strategic Studies, January 30, 2024), <https://hcss.nl/report/getting-them-on-board-european-engagement-indo-pacific-maritime-security/>; Government of the Netherlands, "Joint Statement on the Establishment of a Strategic Partnership between the Government of the Republic of Korea and the Government of the Kingdom of the Netherlands," November 23, 2022.

¹⁰ Benedetta Girardi and Julie Ebrard, "Maritime Supply Chains: Connecting Trade and Security Through Enhanced Dutch-Korean Cooperation" (The Hague Centre for Strategic Studies (HCSS), November 2024).

¹¹ Government of the Netherlands, "Joint Statement on the Establishment of a Strategic Partnership between the Government of the Republic of Korea and the Government of the Kingdom of the Netherlands," November 23, 2022, <https://www.government.nl/documents/diplomatic-statements/2022/11/17/joint-statement-on-the-establishment-of-a-strategic-partnership-between-the-government-of-the-republic-of-korea-and-the-government-of-the-kingdom-of-the-netherlands>.

¹² Tianran Xu, "North Korea's Lethal Aid to Russia: Current State and Outlook," 38 North - The Henry L. Stimson Center, February 14, 2025, <https://www.38north.org/2025/02/north-koreas-lethal-aid-to-russia-current-state-and-outlook/>.

Both nations are engaged in information-sharing to counter state-sponsored cyber threats, particularly from North Korea.

Therefore, cooperation on security and defence is needed to tackle shared challenges and mitigate their impact on global stability.

As maritime powers, both countries are committed to the freedom of navigation. To uphold this principle and safeguard maritime trade, both states have participated in multinational naval missions such as NATO's Operation Ocean Shield and EUNAVFOR Atalanta operations.¹³ Since becoming a NATO Global Partner in 2006, the ROK has further deepened its engagement through the Individually Tailored Partnership Programme (ITPP) in 2023, focusing on counterterrorism, cybersecurity, disarmament, and diplomacy.¹⁴ The Netherlands has also been an active contributor to maritime security around the Korean Peninsula. In June 2024, a Dutch frigate was deployed in the East China Sea on a UN-mandated sanctions patrol against North Korea to detect illicit ship-to-ship transfers and nuclear proliferation-related activities.¹⁵

In recent years, bilateral defence initiatives have gained increased momentum. The Netherlands deployed frigates to Busan in 2021 and 2024 to show its commitment to the ROK's security.¹⁶ They also launched the Dutch Coalition for Defence and Security in the ROK, uniting Dutch defence, tech, and R&D actors with their Korean counterparts. This initiative seeks to foster long-term collaboration based on autonomy, equality, knowledge exchange, shared values, and reliability.¹⁷ This is further supplemented by the EU-South Korea Security and Defence Partnership (formalised in December 2024), which facilitates joint technology initiatives in defence.¹⁸

¹³ "Operation Ocean Shield," NATO SHAPE, accessed May 2, 2025, <https://shape.nato.int/missionarchive/operation-ocean-shield.aspx>; "Facts and Figures: EUNAVFOR Operation Atalanta," EU Naval Force Operation Atalanta, accessed June 23, 2025, <https://eunavfor.eu/sites/default/files/2024-04/FACTS%20AND%20FIGURES%20APR24%20copy.pdf>.

¹⁴ Ministry of Foreign Affairs Republic of Korea, "'Tailored Partnership' with NATO to Boost Security Cooperation," July 13, 2023, https://www.mofa.go.kr/eng/brd/m_5674/view.do?seq=320840.

¹⁵ Ifang Bremer, "Chinese Jets Harassed Dutch Warship on North Korea Sanctions Patrol: Netherlands," *NK News - North Korea News* (blog), June 11, 2024, <https://www.nknews.org/2024/06/chinese-jets-harassed-dutch-warship-on-north-korea-sanctions-patrol-netherlands/>.

¹⁶ Wyatt Mingji Lim, "Dutch Frigate, HNLMS Evertsen's Voyage so Far as Part of the UK Carrier Strike Group 21 (CSG21); Will Arrive in Singapore on 10 October 2021," *Defense Politics Asia*, October 9, 2021, <https://defensepoliticsasia.com/dutch-frigate-hnlms-evertsens-voyage-so-far-as-part-of-the-uk-carrier-strike-group-21-csg21-will-arrive-in-singapore-on-10-october-2021/>; Eunhyuk Cha, "Royal Netherlands Navy Frigate HNLMS Tromp Visits South Korea," *Naval News*, June 13, 2024, <https://www.navalnews.com/naval-news/2024/06/royal-netherlands-navy-frigate-hnlms-tromp-visits-south-korea/>.

¹⁷ "Coalition for Defense & Security South Korea."

¹⁸ European External Action Service, "Security and Defence Partnership Between the European Union and the Republic of Korea," November 4, 2024,

“We need to start thinking about European-Asian cooperation on its own, without the US.”

Another growing priority is cybersecurity. For instance, both nations are engaged in information-sharing to counter state-sponsored cyber threats, particularly from North Korea. In 2022, it was found that Netherlands-based servers had been used by North Korean hackers.¹⁹ Other investigations have shown that 80% of state-sponsored hacking attempts in the ROK can be attributed to North Korea, amounting to nearly 1.3 million daily attempts.²⁰ Additionally, both nations are working to protect critical infrastructure. They participate in the International Cable Protection Committee and co-signed the 2024 Joint Statement on Undersea Cable Security, reinforced by commercial agreements like the Tennenet-LS Cable & System partnership.²¹ In this domain, the ROK's frontline experience in countering advanced persistent threats offers valuable lessons. In turn, the leadership of the Netherlands in cyber governance, privacy standards, and digital infrastructure protection can enhance Korea's strategic toolkit. Both countries can benefit from sharing strategies on hybrid threats, maritime domain awareness, and defence innovation, especially in naval and space-based capabilities.

Overall, Dutch-Korean security cooperation is becoming increasingly imperative in a world where the United States is steadily retreating from international engagement. As noted by an expert during the ROK-NL Forum, “we need to start thinking about European-Asian cooperation on its own, without the US”. In this context, the Netherlands and the ROK offer complementary strengths to security cooperation: the Netherlands offers a deep experience in NATO operations, maritime security, and multilateral defence coordination. Meanwhile, the ROK contributes cutting-edge defence technology and on-the-ground insight into Northeast Asian security dynamics, including North Korean

<https://www.eeas.europa.eu/sites/default/files/documents/2024/EU-RoK%20Security%20and%20Defence%20Partnership.pdf>.

¹⁹ Ifang Bremer, “Dutch Intelligence Says North Korea Using Netherlands-Based Servers for Hacking,” *NK News - North Korea News*, April 29, 2022, <https://www.nknews.org/2022/04/dutch-intelligence-says-north-korea-using-netherlands-based-servers-for-hacking/>.

²⁰ Sunha Bae, “Deterrence Under Pressure: Sustaining U.S.-ROK Cyber Cooperation Against North Korea,” Center for Strategic and International Studies, April 1, 2025, <https://www.csis.org/analysis/deterrence-under-pressure-sustaining-us-rok-cyber-cooperation-against-north-korea>.

²¹ International Cable Protection Committee, “Member List,” International Cable Protection Committee, June 16, 2025, <https://www.iscpc.org/about-the-icpc/member-list/>; Winston Qiu, “US and Its Allies Issue Joint Statement on the Security and Resilience of Undersea Cables,” Submarine Cable Networks, October 7, 2024, <https://www.submarinenetworks.com/en/nv/insights/us-and-its-allies-issue-joint-statement-on-the-security-and-resilience-of-undersea-cables>; Jeong-Soo Hwang, “LS Cable Consortium Wins \$1.5 Billion Cable Deal from the Netherlands,” *The Korea Economic Daily*, May 8, 2023, <https://www.kedglobal.com/energy/newsView/ked202305080023>.

With global leadership in retreat, middle powers like the ROK and the Netherlands are uniquely positioned to fill the normative vacuum by convening expertise from academia, government, and industry.

threats. This is especially relevant for the Netherlands given North Korea's increasing involvement in Ukraine.²² Reflecting on this strategic expertise, a Korean panellist emphasised during the Forum that the ROK has "a military alignment with Dutch partners, and it is a really crucial relationship that we need to nurture and solidify in the future."

AI, emerging tech, and international governance: A new frontier of cooperation

Artificial Intelligence (AI) is another cornerstone of ROK-NL cooperation, reflecting the complementary strengths of the two countries. They combine the ROK's expertise in applied AI, robotics, and automation with Dutch leadership in ethical governance and foundational research.²³ This is further complemented by the 2024 Memoranda of Understanding on ICT Cooperation, and Research and Science cooperation which seeks to promote joint research centres, development projects, and exchange programmes, and complement existing initiatives at the European level, such as the Korea-EU Research Centre and Horizon Europe projects.

The military use of AI is a shared concern. In 2023, the Netherlands and the ROK co-hosted the inaugural Summit on Responsible Artificial Intelligence in the Military Domain (REAIM).²⁴ In the aftermath of the Summit, the Global Commission on AI was created, tasked with shaping governance, awareness, and responsible standards for AI in defence.²⁵ As added by an expert from the ROK-NL Forum, this helped to develop "a language, a common narrative to limit challenges posed by AI in the military domain and identified opportunities we can take advantage of." Building on this cooperation, both countries co-submitted the first UN resolution on AI in November 2024. The resolution emphasises global

²² ROK-NL Forum 2025, Insights from Panel 1.

²³ European Commission, "European Approach to Artificial Intelligence," accessed April 8, 2025, <https://digital-strategy.ec.europa.eu/en/policies/european-approach-artificial-intelligence>; Sapna Chadha, "Why AI Is Southeast Asia's New Engine for Profitable Growth," World Economic Forum, November 21, 2024, <https://www.weforum.org/stories/2024/11/ai-report-southeast-asia-economic-growth/>.

²⁴ Dutch Ministry of Foreign Affairs, "REAIM 2023," September 13, 2023, <https://www.government.nl/ministries/ministry-of-foreign-affairs/activiteiten/ream>.

²⁵ Government of the Netherlands, "Call to action on responsible use of AI in the military domain," February 16, 2023, <https://www.government.nl/latest/news/2023/02/16/ream-2023-call-to-action>.

dialogue on AI governance and seeks the establishment of international norms for the safe and ethical use of AI technologies.²⁶

REAIM has emerged as a practical and inclusive platform for engaging countries from across geopolitical divides in developing shared principles grounded in international law. As noted by the panellists, the process has been valuable for creating a common narrative and practical taxonomy for AI in defence, bridging not only technological gaps between the Global North and South but also normative divides between East and West.²⁷

A recurring theme in discussions was the urgency of addressing the widening value gaps in AI governance.²⁸ With global leadership in retreat, middle powers like the ROK and the Netherlands are uniquely positioned to fill the normative vacuum by convening expertise from academia, government, and industry. In this spirit, the REAIM platform is supporting confidence- and trust-building across stakeholder communities and promoting the preservation of meaningful human control in military AI systems.²⁹

In terms of mutual learning opportunities, the ROK's strength lies in the rapid deployment of applied AI solutions, including industrial automation and smart systems.³⁰ Its dynamic innovation ecosystem and integration of AI into national security planning are areas from which the Netherlands can gain valuable insights. Moreover, the ROK was the first country in Asia, and only the second worldwide after the European Union, to enact a comprehensive AI legal framework.³¹

Conversely, the Netherlands offers expertise in AI ethics, transparency, and algorithmic accountability. For instance, the Dutch Fundamental Rights and Algorithms Impact Assessment (FRAIA) embeds ethical safeguards and human rights considerations into the national

²⁶ "United Nations adopts Dutch AI resolution," Government of the Netherlands (Ministerie van Algemene Zaken, November 7, 2024), <https://www.government.nl/latest/news/2024/11/07/united-nations-adopts-dutch-ai-resolution>.

²⁷ ROK-NL Forum 2025, insights from Panel 2: AI, emerging tech and international governance: A new frontier for cooperation between Europe and Asia.

²⁸ ROK-NL Forum 2025, Insights from Panel 2.

²⁹ ROK-NL Forum 2025, Insights from Panel 2.

³⁰ Rajiv Kumar, "The Rise of AI Manufacturing in China and South Korea," *The Diplomat*, May 23, 2025, <https://thediplomat.com/2025/05/the-rise-of-ai-manufacturing-in-china-and-south-korea/>.

³¹ Seungmin (Helen) Lee, "South Korea's Evolving AI Regulations," Stimson Center, June 12, 2025, <https://www.stimson.org/2025/south-koreas-evolving-ai-regulations/>.

Technological cooperation, particularly in semiconductors, quantum technology, AI, and battery technologies, has become a cornerstone of the ROK-NL partnership.

deployment of AI.³² There is also a public Dutch Algorithm Register that lists over 400 algorithms used by public authorities.³³ Dutch academic and policy institutions have been instrumental in shaping global discussions around responsible AI, rendering them ideal partners for co-developing governance frameworks.

Moreover, the ROK and the Netherlands both face internal challenges, creating additional opportunities for cooperation. For instance, the ROK is experiencing a significant brain drain in its AI sector ranking fourth among OECD countries.³⁴ Meanwhile, the Netherlands struggles to finance its AI-specialised firms, which often lack the capital intensity needed to scale, alongside a decline in the number of startups.³⁵ Foreign partnerships offer a practical solution to these challenges and can help sustain the innovation capacity of these tech-driven economies.

Both countries also recognise that AI cannot be governed solely through general declarations. As highlighted during the Forum, effective governance requires layered technical regulation, domain-specific experimentation, and involvement of non-state actors.³⁶ However, a core challenge remains transitioning from principles to enforceable norms, which requires iterative development, inclusive dialogue, and institutional innovation. Together, the ROK and the Netherlands can pioneer the development of globally relevant standards for military AI, privacy-conscious innovation, and dual-use AI technologies.

³² UNESCO, “The Netherlands: Artificial Intelligence Readiness Assessment Report” (Paris: UNESCO, 2025), 24, <https://unesdoc.unesco.org/ark:/48223/pf0000393240>.

³³ Diana Mariana Popa, “Frontrunner Model for Responsible AI Governance in the Public Sector: The Dutch Perspective,” *AI and Ethics* 5, no. 3 (June 1, 2025): 2789, <https://doi.org/10.1007/s43681-024-00596-2>.

³⁴ Joon-hyun Moon, “S. Korea Suffers OECD’s 4th-Biggest AI Brain Drain,” *The Korea Herald*, June 19, 2025, <https://www.koreaherald.com/article/10513263>.

³⁵ Bob Rietveld et al., “State of Dutch Tech Report 2025” (Techleap, 2025), 6, 8, <https://techleap.nl/report/state-of-dutch-tech-report-2025/>.

³⁶ ROK-NL Forum 2025, Insights from Panel 2.

STEM and high-tech industry cooperation: The future of innovation and technological development

Technological cooperation, particularly in semiconductors, quantum technology, AI, and battery technologies, has become a cornerstone of the ROK-NL partnership. The ROK is the world's second-largest semiconductor producer, while the Netherlands is home to ASML, a global leader in semiconductor lithography equipment. As noted during the Forum, "[t]he relationship between the Netherlands and the ROK, especially with ASML, is crucial. There is a huge synergy to work together."³⁷

Economic ties reflect this technological synergy. The ROK is the Netherlands' largest Asian trading partner after China and Japan. In turn, the Netherlands is the ROK's largest EU investor and second-largest trading partner, mainly in the semiconductor and battery sectors.³⁸ In 2023 alone, the Netherlands exported over \$6 billion worth of machinery to the ROK, mainly semiconductor-related.³⁹

In recent years, cooperation has increasingly moved beyond trade. In late 2022, the ROK and the Netherlands concluded a strategic partnership agreement to protect and promote critical technologies.⁴⁰ This was reinforced during the South Korean presidential visit to the Netherlands in December 2023, which also marked the signing of a Memorandum of Understanding on cooperation in AI, mobile communications, and quantum technologies.⁴¹ New initiatives, such as the Korea-Netherlands Semiconductor Alliance and the Future Chips Academy that were launched during the same visit, underscore a shared commitment to training talent and advancing joint research.⁴²

The ROK—already a global industrial leader in semiconductors, shipbuilding, and telecommunications—is increasingly focused on internationalising its research and development activities.

³⁷ ROK-NL Forum 2025, Insights from Panel 3.

³⁸ Ministry of Trade, Industry and Energy Republic of Korea, "Korea and Netherlands Discuss Stronger Industrial Cooperation," February 20, 2025, <https://www.korea.net/Government/Briefing-Room/Press-Releases/view?articleId=7854&insttCode=A110412&type=O>.

³⁹ The Observatory of Economic Complexity, "South Korea (KOR) and Netherlands (NLD) Trade," The Observatory of Economic Complexity, 2023, <https://oec.world/en/profile/bilateral-country/kor/partner/nld>.

⁴⁰ Government of the Netherlands, "Joint Statement on the Establishment of a Strategic Partnership between the Government of the Republic of Korea and the Government of the Kingdom of the Netherlands," November 23, 2022.

⁴¹ Embassy of the Republic of Korea to the Kingdom of the Netherlands, "Joint Statement between the Government of the Republic of Korea and the Government of the Kingdom of the Netherlands."

⁴² Technical University Eindhoven, "New Winter School on 'Future Chips' in Eindhoven Brings Together World-Leading Parties on Semiconductors and Photonics," Brainport Eindhoven,

Dutch entrepreneurial ambition and Korean operational discipline are mutually reinforcing qualities.

Dutch institutions like TNO have expanded cooperation with Korean counterparts in areas including smart cities, mobility, and microelectronics.⁴³ Industry partnerships, such as NXP and Bitsensing's development of automotive radar systems, highlight growing commercial ties.⁴⁴

These efforts were further explored during the Forum, where experts highlighted the urgency to scale industry cooperation and innovation ecosystems. A Dutch stakeholder noted: “[W]e see a lot of startups but they don’t scale. We can create consortiums between companies [to] facilitate coordination [...] and giv[e] support to smaller companies.”⁴⁵ The ROK—already a global industrial leader in semiconductors, shipbuilding, and telecommunications—is increasingly focused on internationalising its research and development activities. Here, a Korean speaker noted that “We cannot be alone to develop these technologies, [...] R&D is more focused domestically and we hope to change that”. As part of this shift, it has tripled its collaborative research output and joined key European initiatives like Horizon Europe to advance cooperation in emerging technologies.⁴⁶ For its part, the Netherlands offers a dynamic ecosystem for small and medium-sized enterprises and benefits from strong public-private cooperation. However, challenges remain when it comes to scaling up innovation, financing dual-use technologies, and navigating compliance barriers across jurisdictions.⁴⁷

A key area of mutual strength lies in maritime innovation. The Dutch port of Rotterdam is home to the world’s first unmanned automated terminal, while the ROK’s Busan port operates the largest fully

February 20, 2024, <https://brainporteindhoven.com/int/news/new-winter-school-on-future-chips-in-eindhoven-brings-together-world-leading-parties-on-semiconductors-and-photonics>; Yonhap, “S. Korea, Netherlands Launch Semiconductor Dialogue,” *The Korea Herald*, February 19, 2024, <https://m.koreaherald.com/article/3329770>.

⁴³ TNO, “TNO Intensifies Cooperation with South Korea and Japan on Smart Cities,” TNO, June 3, 2024, <https://www.tno.nl/en/newsroom/insights/2024/06/cooperation-south-korea-japan-smart/>.

⁴⁴ Reuters, “Dutch Chipmaker NXP and South Korea’s Bitsensing in Radar Deal,” *Reuters*, December 16, 2024, sec. Technology, <https://www.reuters.com/technology/dutch-chipmaker-nxp-south-koreas-bitsensing-radar-deal-2024-12-16/>.

⁴⁵ ROK-NL Forum 2025, Insights from Panel 3.

⁴⁶ European Commission, “International Cooperation with Korea in Research and Innovation,” March 10, 2025, https://research-and-innovation.ec.europa.eu/strategy/strategy-research-and-innovation/europe-world/international-cooperation/association-horizon-europe/korea_en; ROK-NL Forum 2025, Insights from Panel 3: STEM and high-tech industry cooperation: The future of innovation and technological development.

⁴⁷ ROK-NL Forum 2025, Insights from Panel 3.

automated container terminal globally.⁴⁸ Building on this shared expertise, the two countries have developed multiple initiatives, including a blockchain pilot project to enhance digital supply chain traceability and automate global shipping logistics.⁴⁹

Nuclear technology represents another important pillar of longstanding cooperation. Since 2006, the ROK and the Netherlands have worked together through Euratom on fusion research and nuclear safety.⁵⁰ This collaboration further expanded in 2023 with a new Memorandum of Understanding covering joint efforts in nuclear power plant construction, equipment supply, small modular reactor development, and safety training.⁵¹

Finally, both countries recognise that technological collaboration cannot be driven by hardware alone. During the Forum, cultural complementarity was highlighted as a unique asset: Dutch entrepreneurial ambition and Korean operational discipline are mutually reinforcing qualities. Built on shared values, political trust, and mutual ambition, the ROK-NL partnership is increasingly well-positioned to shape the future of innovation and STEM development in a rapidly evolving global landscape.⁵²

⁴⁸ “Busan New Port Unveils South Korea’s First Fully Automated Terminal,” Marine Insight, April 8, 2024, <https://www.marineinsight.com/shipping-news/busan-new-port-unveils-south-koreas-first-fully-automated-terminal/>.

⁴⁹ Miranda Wood, “Samsung, Rotterdam Port, ABN AMRO Complete Blockchain Trade Test,” Ledger Insights - blockchain for enterprise, July 1, 2019, <https://www.ledgerinsights.com/samsung-rotterdam-port-abn-amro-blockchain-trade-deliver/>.

⁵⁰ “Council Decision of 21 November 2006 Approving the Conclusion, by the Commission, of the Agreement for Cooperation between the European Atomic Energy Community Represented by the Commission of the European Communities and the Government of the Republic of Korea in the Field of Fusion Energy Research,” Eur-Lex, November 21, 2006, <http://data.europa.eu/eli/dec/2011/334/oj/eng>.

⁵¹ Heekyong Yang and Toby Sterling, “Netherlands, South Korea Agree to Cooperate on Nuclear Power,” *Reuters*, December 13, 2023, <https://www.reuters.com/business/energy/netherlands-south-korea-agree-cooperate-nuclear-power-2023-12-13/>.

⁵² ROK-NL Forum 2025, Insights from Panel 3.

Looking ahead: Recommendations for deepening ROK-NL cooperation

International cooperation does not occur in a vacuum. The evolving geopolitical landscape, regulatory fragmentation, and intensifying industrial competition all present challenges to expanding Dutch-Korean bilateral ties. The resurgence of “America First” has encouraged countries across Europe and East Asia to diversify their strategic partnerships. The EU’s “Readiness 2030” strategy—including a €150 billion loan programme for defence capabilities to diversify procurement—has added further impetus, stimulating interest in East Asian defence industries.⁵³ Under this scheme, the ROK is one of the few non-EU countries that can tender for projects, effectively solidifying the ROK’s status as a key defence partner for the Netherlands and the EU at large.⁵⁴

These dynamics offer a timely window of opportunity and have created strong incentives for closer ROK-NL cooperation. In fact, the Netherlands and the ROK are increasingly aligned not only as democracies, but as technologically advanced middle powers facing common strategic dilemmas and offering complementary strengths.⁵⁵ Dutch excellence in precision manufacturing, maritime infrastructure, and advanced materials is matched by the ROK’s global leadership in consumer electronics, semiconductor fabrication, and shipbuilding. The complementarity of their partnership is particularly evident in the semiconductor sector: Dutch firms like ASML provide the essential machinery for Korea’s chip production, while Korean manufacturing can scale European designs to global markets.⁵⁶ Renewable energy is another key domain of synergy, with Dutch expertise in offshore wind aligning with Korea’s industrial capacity.⁵⁷

⁵³ European Parliamentary Research Service, “ReArm Europe Plan/Readiness 2030,” April 3, 2025, <https://epthinktank.eu/2025/04/03/rearm-europe-plan-readiness-2030/>.

⁵⁴ Gregorio Sorgi, Jacopo Barigazzi, and Giovanna Faggionato, “EU Slams the Door on US in Colossal Defense Plan,” *POLITICO*, March 19, 2025, <https://www.politico.eu/article/eu-freeze-us-multi-billion-defense-plan-arm-makers/>.

⁵⁵ Government of the Netherlands, “Joint Statement on the Establishment of a Strategic Partnership between the Government of the Republic of Korea and the Government of the Kingdom of the Netherlands,” November 23, 2022.

⁵⁶ Son Ji-hyoung, “S. Korea, Netherlands Declare ‘Semiconductor Alliance,’” *The Korea Herald*, December 13, 2023, sec. The Korea Herald, <https://www.koreaherald.com/article/3280015>; Anoma P. van der Veere, “The Netherlands and South Korea: From Semiconductors to Universities” (Leiden: Leiden Asia Centre), 33, accessed April 9, 2025, <https://leidenasiacentre.nl/wp-content/uploads/2024/06/Van-der-Veere-SKNL.pdf>.

⁵⁷ Trade with NL, “Netherlands Trade Mission to the Republic of Korea” (Trade with NL, March 2023), https://tradewithnl.nl/sites/trade/files/files/2024-04/SouthKorea_missionbooklet_2.pdf.

With security challenges increasingly transcending geographical boundaries, the partnership between the ROK and the Netherlands offers a vital bridge between Europe and the Indo-Pacific and addresses the need for cross-regional coordination on emerging challenges such as hybrid threats and nuclear proliferation. As such, strengthening coordination across the Euro-Atlantic and Indo-Pacific regions not only reinforces collective deterrence but also positions the ROK-NL axis as a multipolar model for global security cooperation.⁵⁸

Overall, several recommendations can be identified to further reinforce the Dutch-Korean partnership:

1. Strengthen security partnerships and defence industrial cooperation.

1.1 Ensure and improve the resilience of supply chains.

While some security cooperation already exists, the Dutch-Korean Strategic Partnership Agreement leaves plenty of opportunity to increase cooperation, especially on critical supply chains.

Expanding the scope of the Dutch Coalition for Defence and Security in the ROK could enable trilateral R&D, harmonised procurement frameworks, and shared testing environments. During the Forum, experts identified several areas of high potential, including underwater autonomous vehicles, semiconductors and microelectronics for defence applications.⁵⁹ By leveraging joint innovation and resilient secure supply chains, small and middle powers gain strategic technological advantages, improving their overall deterrence posture.⁶⁰

1.2 Enhance offensive and defensive cyber capabilities.

As cyberattacks from state and non-state actors grow in frequency and scale, both countries would benefit from joint development of offensive and defensive cyber capabilities, including intelligence

⁵⁸ Embassy of the Republic of Korea to the Kingdom of the Netherlands, “Joint Statement between the Government of the Republic of Korea and the Government of the Kingdom of the Netherlands.”

⁵⁹ ROK-NL Forum 2025, Insights from Panel 3.

⁶⁰ Benjamin Jensen et al., “Competition in the Shadow of Technology” (Center for Strategic & International Studies, December 2024), 4, https://csis-website-prod.s3.amazonaws.com/s3fs-public/2024-12/241216_Jensen_Shadow_Technology.pdf?VersionId=e7Q4E1zYNVL1._OH9G2f.BTgeSwXbPqV.

sharing.⁶¹ Strengthening cyber capabilities could also be achieved through capacity building initiatives such as joint training and simulations between agencies such as the Dutch and Korean National Cyber Security Centres.

1.3 Develop acquisition roadmaps for next-generation platforms.

Developing roadmaps for platforms, such as unmanned naval systems and integrated maritime sensors, can create economies of scale while reinforcing industrial resilience.

1.4 Use existing technology-transfer protocols to ensure reciprocity.

Technology-transfer protocols similar to those the ROK already uses in its arms exports could be used, embedding local manufacturing clauses that ensure reciprocal technology flows and capacity-building.⁶² This would ensure reciprocal and balanced innovation flows.

2. Expand educational and scientific cooperation.

2.1 Establish dual-degree programmes leveraging academia and industry.

To sustain their semiconductor, AI, and quantum ambitions, the ROK and the Netherlands could institutionalise existing talent pipelines like the Eindhoven-SK Future Chips Academy into accredited dual-degree programmes across universities, supported by industry sponsorship from ASML, Samsung, and SK Hynix. These programmes could include year-long industry placements in both countries and shared digital labs focusing on AI ethics and semiconductor process design. This would also effectively address critical industry needs and workforce shortages.

2.2 Create funding programmes to facilitate cross-border knowledge exchange.

A funding scheme can be launched in partnership with the Korea-EU Research Centre to fund cross-border PhD and postdoctoral research into quantum, cybersecurity, dual-use AI and any other areas of mutual interest. This structured system would ensure continuous talent mobility and deepen research ecosystems necessary for high-tech leadership.

⁶¹ ROK-NL Forum 2025, Insights from Panel 1.

⁶² “Coalition for Defense & Security South Korea.”

3. Increase collaboration on clean energy and logistics.

3.1 Initiate partnerships targeting large-scale innovation to boost the green transition

The Netherlands and the ROK are committed to significantly reducing greenhouse gas emissions and recognise the importance of international cooperation in accelerating the green transition. The successful Mammoet-Samyang Marine Group partnership, establishing Offshore Service Ports in Busan and Masan to support the ROK's Offshore Wind 2030 ambitions, demonstrates the potential of combining Dutch logistical expertise with Korean demand.⁶³ Building on this, future initiatives should target scalable innovation in renewable logistics, digital port automation, and sustainable decommissioning technologies.

3.2 Support initiatives by creating funding programmes and incentives.

These joint ventures could receive funding from Dutch green-tech funds and Korean industrial incentives, and knowledge could be diffused through exchange programmes and joint certifications. By scaling the successful example of Samyang Marine Group and Mammoet across other ports and integrating renewable energy financing, the ROK and the Netherlands can drive industrial carbonisation while yielding exportable joint green-tech solutions.

4. Enhance maritime infrastructure cooperation

4.1 Develop joint initiatives for next-generation smart ports.

Given their respective strengths in logistics and shipbuilding, the Netherlands and the ROK are ideally positioned to co-develop next-generation maritime infrastructure. As one panellist noted, "The ROK has its own card to play, which is its shipbuilding industry", a strategic advantage that complements Dutch leadership in port logistics and digitalisation. Building on Rotterdam-Busan smart-port exchanges, and the recently commissioned 30,000 square metre sustainable logistics centre in the Port of Rotterdam, the two countries have a strong foundation for deeper cooperation.⁶⁴

⁶³ Adnan Memija, "Mammoet Enters Offshore Wind Partnership with South Korean Company," Offshore Wind, September 2, 2024, <https://www.offshorewind.biz/2024/09/02/mammoet-enters-offshore-wind-partnership-with-south-korean-company/>.

⁶⁴ Port Technology, "Busan Port Authority to Complete Rotterdam Warehouse by 2022," Port Technology, July 6, 2021, <https://www.porttechnology.org/news/busan-port-authority-to-complete-rotterdam-warehouse-by-2022/>.

4.2 Advance sustainable green ports through joint strategies and standards.

For instance, they can co-create a “Green Port Standard”, setting criteria for automation, energy efficiency, and lifecycle emissions aligned with both EU environmental directives and Korean green port policies. Here, Dutch digital expertise and Korean shipbuilding capabilities can converge to future-proof port resilience and global supply chain visibility.

5. Continue the success of the ROK-NL Forum

5.1 Expand the ROK-NL Forum into an annual dialogue.

The inaugural ROK-NL Forum 2025 brought together high-level policymakers, experts, and industry leaders to forge stronger connections and jointly address challenges related to global security, emerging technologies, and high-tech industrial cooperation. Building on this momentum, the Forum should become an annual event, potentially rotating between Seoul and The Hague, serving as a Track 1.5 platform bridging official policy dialogue with expert and industry input. A strategic agenda should be jointly developed and discussed regularly among partners. This should be anchored in concrete recommendations, ensuring that mutual trust is translated into structured cooperation. The agenda should include measurable objectives, address key challenges, and incorporate binding commitments where appropriate to encourage the implementation of initiatives. Regular progress checks through monthly or semestrial inter-institutional meetings can help identify roadblocks and prepare for future Forums, ensuring momentum is sustained between annual events.

5.2 Invite long-term and solution-driven discussions connecting Dutch and Korean experts.

In parallel, Track 2.0 engagement through academic institutions, think tanks, and civil society can support long-term trust-building and nurture a new generation of experts grounded in both Dutch and Korean contexts. Beyond networking, the Forum should thus serve as an action-oriented mechanism. As one speaker aptly concluded, “At the end of the day, we need to connect people”.

Conclusion

The time for a deeper, more strategic partnership between the Republic of Korea and the Netherlands is now. In an age defined by geopolitical fragmentation, technological disruption, and growing threats to democratic norms, both countries stand uniquely positioned not to lead through dominance, but through cooperation grounded in shared values and complementary strengths.

As middle powers with advanced economies and strong innovation ecosystems, Korea and the Netherlands have already laid the groundwork for strategic alignment. Their collaboration spans defence, digital governance, and high-tech industries, and has been reinforced by cultural exchange and mutual respect. Yet, the pace and scale of global change demand more than symbolic gestures or incremental progress. What is required is a deliberate, sustained effort to operationalise their partnership in ways that deliver tangible outcomes - regionally and globally.

This position paper argues that Korea and the Netherlands must move from convergence to co-leadership. The Strategic Partnership Agreement signed in 2022 was a decisive first step; now, both governments must commit to a long-term agenda of joint action. This includes embedding bilateral cooperation into national strategies, scaling cross-border innovation platforms, and co-developing governance frameworks that shape the future of emerging technologies and global security. A key part of this effort should be the institutionalization of the ROK-NL Forum as an annual Track 1.5 platform. With a jointly developed strategic agenda, regular interinstitutional reviews, and actionable commitments, the Forum can become a cornerstone of sustained cooperation.

In a world where many alliances are strained or reactive, the ROK-NL axis offers a forward-looking model for agile, principled cooperation. By institutionalising their partnership, investing in joint talent development, and speaking with a common voice on the international stage, the Republic of Korea and the Netherlands can serve as a vital bridge between Europe and the Indo-Pacific.