

Semicon driving the high-tech sector and beyond

Discover the Netherlands' dynamic and innovative semicon sector

In the last 50 years, semiconductors have revolutionized our lives, being an essential component driving innovations in computers, smart devices, cloud computing, and 5G communication networks. And with the Internet of Things, 70% of semicon chips are now inside everyday consumer appliances from washing machines and fridges to self-driving electric vehicles, wearables and drones. By 2030, demand for semicon products is expected to double compared to 2020. The acceleration of the digital transition means leading-edge semiconductor technology is central to competition, data security and digital performance. While miniaturization (Moore's law) will have reached its limits, new opportunities present themselves for emerging markets for AI, edge computing and digital transformation (More-than-Moore).

The Netherlands is one of only three countries in the world to have all steps of the semiconductor value chain – from design and fabrication to packaging, testing and assembly of the end product. Our country is a seasoned partner in networks and international cooperation on global markets. Our proven track record in major innovations makes the Netherlands an attractive semicon partner. We are a leading global player with regard to knowledge on and production of semiconductors and the largest supplier to the automotive industry and home to the world's biggest machine builder for semicon manufacturing, ASML. Nevertheless, the semicon industry in the Netherlands is largely fed by small to medium-sized companies employing up to 50 people. As a result, the Netherlands boasts both the stability of large companies with comprehensive vertical integration and the versatility of independent operators. On average 85% of the integrated circuits in all electronic devices worldwide, are made on machines designed and manufactured in the Netherlands.

Dutch national network of semiconductor companies

High Tech NL is the branch association of the Dutch high-tech industry consisting of some 230 members, both companies (OEM, SME and startups) and knowledge institutes. High Tech NL is committed to the collective interests of the sector, with a focus on long-

term innovation and international collaboration. To share specific knowledge, each member participates in one or more of our three clusters: Robotics, Semiconductors and Lifescience Technologies.

The cluster Holland Semiconductors is the Dutch national network of semiconductor companies and knowledge institutes active in the entire semicon value chain. It is our aim to strengthen the semicon sector by stimulating (international) cooperation, initiating new (international) innovation projects and facilitating crossover projects with semiconductors as a key enabling technology (KET). We support international innovation missions, and organize, support and host workshops, seminars, webinars and joint booths at international semicon tradeshows. We do this in close partnership with our members, Holland High Tech, Silicon Europe, the Netherlands Enterprise Agency RVO, embassies, consulates and trade offices in the Netherlands and abroad.

Examples of cooperation with Korea

To strengthen business cooperation and establish essential networks in different areas of semiconductor design & equipment between Korea and the Netherlands we have a highly valued partnership with KOTRA. Together with KOTRA, the Korea Semiconductor Industry Association, the Netherlands Embassy in Seoul and the Netherlands Enterprise Agency (RVO) we organized in June 2022 a webinar and several online B2B meetings for Dutch and Korean companies.

Together with the Netherlands Enterprise Agency (RVO) and the Netherlands Embassy in Seoul we organized beginning of October an innovation mission for Dutch semiconductor companies to South Korea, including a Netherlands booth with Dutch companies at SE-DEX 2022.

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Holland Semiconductors

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** The opinions expressed in this article are the author's own and do not reflect the views of KOTRA.*