



Kingdom of the Netherlands

Hi-Tech System & Materials in Thailand

Thailand's need for High-Tech components, a perfect match for Dutch expertise

reaLatviaLithuaniaakuBrusselsGuangzhouKabulMuscatPortOfSpainStockholmTripoliBamakoBratislavaHanoiJubaakuBrusselsGuangzhouKabulMuscatPortOfSpainStockholmTripoliBar

Thailand 4.0 has become the buzzword among Thai businesses, recognised as a new engine of growth that will drive the economy forward through high-tech industries and innovation. But does the country have everything ready in its own house?

While the manufacturing sector has played a significant part in Thailand's economic growth and will continue to hold a prominent stake in the country's progress towards Thailand 4.0, it is still in a deficit of advanced technology and sophisticated machines and materials. To address this shortfall, a call for foreign expertise has never been louder.

OVERVIEW

Thailand is a newly industrialised country. It has been well known for original equipment manufacturing and a regional hub for automotive, electronics & electrical appliances and processed food. The country is the **biggest automotive producer in South East Asia** and one of the tops in the world. The production of electronics and electrical appliances in Thailand is large. It is the world's **2nd biggest exporter and producer of hard disc drives (HDD)** and holds a **renowned reputation in integrated circuits (IC) and semiconductor**. Thailand is also the 2nd largest producer of air conditioning and a world-class manufacturer of refrigerators. Meanwhile, its natural biodiversity and agricultural production provide the country with a comparative advantage in food processing industry.

Thailand has promoted successive economic development schemes for over 50 years, lifting the country to an upper-middle income country in 2011. One of the successful industrialisation programs in Thailand is the development of the Eastern Seaboard, following the discovery of natural gas in the Gulf of Thailand in early 1970s. Main components of the Eastern Seaboard Development Plan included the construction of the Map Ta Phut Industrial Estate which focused on the development of heavy che-

mical industries, the construction of the Laemchabang Industrial Estate to promote export-oriented industries, and the establishment of related infrastructure, including ports, roads, and power generation.

Thailand's export value of high-tech products has increased significantly since the completion of the Eastern Seaboard project in the 1990s – from only USD13.6 billion (EUR12.2 billion) in 1998 to USD34.5 billion (EUR30.7 billion) in 2015 (The World Bank data). However, the contribution of high-tech exports to the country's total exports is declining. In 2015, Thai high-tech exports accounted for 21.4 per cent of total manufactured exports of Thailand, dropping from the peak of 34.4 per cent in 1998. An obvious reason is the country's struggling to catch up with more advanced technology.

Coupled with changing global demand, Thailand has to step up its effort in producing higher valued products with more technological embedded elements in order to keeping its well-positioned industrial base. The Thai government has launched **"Thailand 4.0" policy** initiative to unlock the country from the so called a middle-income trap, with an aim to create a value-based economy driven by innovation, technology and creativity. This also translates into

the Industry 4.0 policy aiming to moving toward new technology with inclusive growth.

The plan is focused on **10 targeted industries**, which can be divided into two segments. First, the development of existing sectors by adding value through advanced technologies for five industries: Next-Generation Automotive; Smart Electronics; Affluent Medical and Wellness Tourism; Agriculture and Biotechnology; and Food for the Future. Second, called the new S-curve is the other five targeted industries to be additional engines for accelerating Thailand's future growth: Automation and Robotics; Aviation and Logistics; Biofuels and Bio-chemicals; Digital; and Medical and Healthcare.

To support Thailand 4.0 and put the industrial policy into action, the Thai Government is developing a new growth hub called the **Eastern Economic Corridor (EEC)** which covers three eastern provinces in Thailand – Rayong, Chonburi, and Chachoengsao. This area-based improvement is building on the successful development of the Eastern Seaboard. The EEC will be a major industrial area, with a strong focus on industries in which Thailand is already a leading global player, such as the automotive, electronics, and petrochemicals (among the top five in Asia). The region will offer modern and efficient infrastructure such as deep sea ports, an airport, rail systems, highways and industrial estates.

OPPORTUNITIES FOR DUTCH EXPORTS AND INVESTMENTS

While Thailand has been a leader in automotive, electronics & electrical appliances and processed food sectors, it requires more R&D and higher technology to increase competitive edge. The country's R&D expenditure remains low (less than 1 per cent of GDP) and is very much dependent on the import of high-tech machinery and parts. In 2016, Thailand imported over USD35 billion (EUR31 billion) worth of machinery and parts (including electrical machinery), accounting for 17 per cent of its total imports.

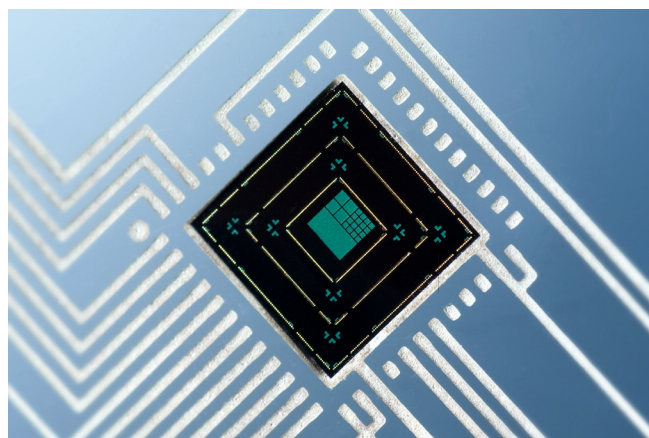
Thailand's need for higher-tech machines and materials provides great opportunities for Dutch companies to supply. As the Thai economy is transforming from traditional industries to a higher valued one, it will have to invest more in technology and innovation. The country will increasingly continue to import high-tech components to upgrade their products, services, as well as environment and the quality of life, particularly in the areas of potential growth. This perfectly aligns with what the Netherlands can offer e.g. green/clean mobility solutions, smart electronics, automation, or nanotechnology. Thailand's trade policy for the import of high-tech systems and machinery is also relatively liberalised with the average applied import tariffs of less than 5 per cent.

Besides export opportunities for Dutch hi-tech systems and materials, **Thailand welcomes foreign investment in high-tech and innovative fields.** In 2015, Thailand underwent sweeping reforms with its investment promotion strategy, moving away from reliance on low-cost labour towards sustainable growth, higher value-added outputs, and improved productivity.

The **new Board of Investment (BOI) strategy incentivises investments that have a high-tech component**, are eco-friendly or that boost R&D. Business activities that use advanced technology are eligible for the highest corporate income tax (CIT) exemption of up to eight years (the number of years depends on types of activities); investment tax allowance (deduction up to 70 per cent of the invested capital on net profit); the exemption of import duties on machinery, raw materials, and materials imported for R&D purposes and related testing; plus other non-tax incentives e.g. permission to own land and to bring in foreign experts.

Additional merit-based incentives will be provided to companies investing in R&D, contributing to human resources development and technology funds or supporting academic/research institutes, acquiring intellectual property licences and commercializing technology which has been developed in Thailand, establishing locally owned vendors and suppliers with the help of technical assistance, providing advanced technology training, and involving in designing of products and packaging. Meanwhile, extra area-based incentives will be provided to projects that invest in certain areas such as the Special Economic Zones, Science and Technology Parks, 20 low-per capita income provinces, and the four southern border provinces.

Moreover, early 2017 the BOI approved **technology-based incentives (BOI+)** to specifically promote technology and innovation development in Thailand. A special incentive package will be granted to projects focusing on the development of four targeted **core technologies – biotechnology, nanotechnology, advanced material technology, and digital technology** – and enabling services which include high-value added services that support targeted technology development, namely R&D, vocational training institute (in science and technology sectors), electronics design, engineering design, scientific laboratory, and calibration services. Such qualified projects are eligible for 10-year CIT exemption and additional merit-based incentives for 1-3 years, altogether with no more than 13 years, noting that projects must also be engaged in technology transfer by cooperating with educational or research institutions.



In addition, the Thai Government has announced the adoption of the **Competitive Enhancement Act for Targeted Industries (Strategic Investment or BOI++)** to further enhance the competitiveness of Thai industries. The main idea is to establish a new and effective tool to attract (foreign) investments in industries that are “new to Thailand” or used new technology or advanced production that will bring in development and promotion of innovation. The law applies to large scaled or long-term investment projects in core technologies which have high impact on the economy and cannot be attracted by the existing tools. Such investments are eligible for CIT exemption of up to 15 years and other benefits granted by the BOI. Moreover, the Act establishes a Competitiveness Enhancement Fund, starting with 10 billion baht (EUR263 million) grant, to be used to support projects engaged in R&D, innovation or human development in specific areas.

Promoted projects located in the EEC will also receive a 50 per cent reduction on the CIT for five years from the expiring date of the CIT exemption, provided that they are investments in the targeted industries that utilise advanced technology (10 targeted industries except agriculture), or focusing on infrastructure and logistic development, R&D and technology enabling services. Incentives will also be granted in line with the Competitive Enhancement Act for strategic projects located in the EEC including a maximum CIT exemption of 15 years plus grants. The One Stop Service is established to facilitate investment in the area.

With plenty of investment incentives and Thailand’s strategic location as the centre of Southeast Asia, as well as the country’s comparatively well-developed infrastructure, there are great opportunities for Dutch commercial interests and collaboration in the high-tech systems and materials in Thailand, particularly in the areas of **next-generation automotive (clean mobility), smart electronics, robotics and automation and nanotechnology**. These industries would have a high demand of technological advancement, innovation and machinery for automation, energy efficiency, and quality & safety control to keep up their competitive edge.

Note: More information about E-mobility in Thailand is available at <https://www.netherlandsworldwide.nl/documents/publications/2016/12/13/factsheet-on-e-mobility-in-thailand>

Published by:

Netherlands Embassy in Bangkok

Website: www.netherlandsworldwide.nl, e-mail: ban-ea@minbuza.nl

Follow us on [Facebook](#) (Netherlands Embassy in Bangkok), [LinkedIn](#) (ASEAN Business Dialogue) and [Twitter](#) (@NLinThailand)

© Ministry of Foreign Affairs | July 2017



We support your business

The Netherlands Embassy in Bangkok offers active support to Dutch companies already present in Thailand, Laos and Cambodia, and Dutch companies interested in doing business in these countries. Our main services include the following:

- Providing information on sectors and rules and regulations
- Finding potential business partners.
- Supporting trade missions and visiting programs to Thailand
- Organising meetings with relevant authorities at local, provincial or government level.
- Monitoring business opportunities.
- Troubleshooting and advice on resolving disputes.
- Advising on available instruments and services.
- Promoting Dutch business in Thailand.

Business support instruments

The Netherlands government has developed multiple instruments to support Dutch business in Thailand. Please visit the website of the Netherlands Enterprise Agency (www.rvo.nl/thailand) for more information. Atradius Dutch State Business may help you with your export insurance (www.atradiusdutchstatebusiness.nl).

Relevant contacts

- Netherlands Enterprise Agency (RVO): www.rvo.nl
- The Netherland-Thai Chamber of Commerce (NTCC): www.ntccthailand.org
- MKB Thailand: <http://mkbthailand.com>
- Thailand’s Board of Investment (BOI): www.boi.go.th

‘NL exporteert’ app

This app provides up-to-date information necessary for doing international business. It contains an event agenda, economic and financial data, a country comparator, business opportunities, relevant contacts, etc. Download the app via the [App Store](#) or [Google Play](#).