EUROPEAN CLUSTER COLLABORATION PLATFORM

Input paper on the cluster landscapes and collaboration opportunities in the European Union and selected Southeast Asian countries

Part of the series "Input papers on 3rd countries"

An initiative of the European Union

Authors:
Dr. Jan-Philipp Kramer (Prognos)
Lennart Galdiga (Prognos)
Felix Ginzinger (Prognos)
Fabian Schmidt (Prognos)
Joseba E. Unzaga Rubio (Prognos)
Vincent Vogelsang (Prognos)

Brussels, January 2025

Contents

Figures

Executive Summary

This input paper presents the economic profile and the cluster landscape of four selected countries in Southeast Asia — Indonesia, Malaysia, Thailand and Vietnam. These four countries have previously been selected based on several quantitative and qualitative factors.[1] The first part of this paper shows the economic profiles of these four countries, which is followed by an assessment of key value chains between the EU and the four selected countries. In the second part of the paper, a closer look is taken at the existing cluster landscapes and policies in Indonesia, Malaysia, Thailand and Vietnam as well as existing and possible future cluster cooperation between the EU and these countries.

Economic profile of selected Southeast Asian countries: Indonesia, Malaysia, Thailand & Vietnam

- The countries of **Indonesia, Malaysia, Thailand and Vietnam** have a population of 635.4 million people and jointly account for 72% of the total GDP (EUR 3.5 trillion) of the ASEAN Member States. Over the past three decades, the region has experienced robust economic growth, punctuated by only two recessions in 1998 and 2020.
- **Indonesia's** economy has shown strong growth over the past three decades, averaging 4.9% annually. In 2023, Indonesia's GDP reached EUR 1.3 trillion in 2023, thus being the largest economy of the ASEAN member states, with a GDP per capita (PPP) of EUR 14,439. Key sectors include manufacturing, wholesale trade, and services, while primary goods such as agricultural products and minerals dominate exports.
- **Malaysia's** economy has shown robust growth, averaging 5.6% over the past few decades, and reached a GDP of EUR 369.6 billion in 2023, with the highest GDP per capita PPP in Southeast Asia at EUR 34,300. Key sectors include manufacturing, financial, as well as wholesale, trade and hospitality while exports are led by electronics, minerals, and machinery.
- **Thailand's** economy has experienced significant growth, averaging 3% over the past 30 years, although it has been more volatile compared to other Southeast Asian countries analysed. In 2023, Thailand's GDP was slightly below its pre-pandemic peak, and exhibited a GDP per capita (PPP) of EUR 21,500 in 2023. Key sectors include financial services, manufacturing, wholesale, trade and hospitality with exports led by machinery, chemicals, and electronics.
- **Vietnam's** economy has maintained robust GDP growth, averaging nearly 7% over the past decades. In 2023, Vietnam's GDP reached EUR 347.2 billion, the lowest among the analysed Southeast Asian countries. Vietnam's GDP per capita (PPP) is the lowest among the countries analysed, at EUR 14,044. Key sectors include manufacturing, financial services, wholesale, trade and hospitality with exports dominated by electronics, textiles, and machinery.

EU27 business & value chains with Indonesia, Malaysia, Thailand & Vietnam

- The most important trading partner by total trade volume for the EU is **Vietnam** with a total trade volume of around EUR 67 billion. Malaysia is the most important destination when only considering EU exports.
- The **trade structure between the four countries is highly diverse**. While for Indonesia the main traded commodities are related to Agri-food, textiles & raw materials, for Malaysia & Thailand commodities related to Electronics & Health stand out. For Vietnam, the commodities traded with the EU point

[1] These include the size of the economy, trade volume with the EU27, trade openness, economic complexity.

towards the importance of value chains of the Agri-food, Textile, Electronics and Health industrial ecosystems in the EU-Vietnam trade relations.

Cluster Landscape and Policy of Indonesia, Malaysia, Thailand & Vietnam

- The assessment reveals a **complex and diverse cluster landscape in the four Southeast Asian countries**. It is important to note that the term cluster used in this paper may not align with the definition of a cluster organisation used in the EU context. Instead, it refers more broadly to economic or industrial clusters.
- In **Indonesia**, clusters take the form of Special Economic Zones (SEZ). There are 20 of these SEZ, representing 331 companies with almost 60,000 employees. The majority of the SEZ are linked to manufacturing industries followed by Tourism, Digital, Health and Aerospace.
- In **Malaysia**, five economic corridors are identified that aim to drive advanced supply chains and foster resilient ecosystems across key sectors. Additionally, the country has developed a range of industrial clusters to attract global investors and industrial buyers in sectors such as electronics, automotive, and oil and gas.
- For **Thailand**, the flagship cluster policy of Super Clusters can be highlighted. Eight Super Clusters are operating across different regions of Thailand which follow the objective of industrial upgrading by attracting FDI in various advanced technology sectors.
- In **Vietnam**, the cluster landscape is characterised by Key Economic Regions (KER), Economic Zones & Industrial Parks. Main economic agglomerations are found in the North (heavy industry) & South (consumer goods). Central and Mekong Delta KER focus mainly on agriculture, tourism & logistics.

Outlook: Potential for future EU – Southeast Asian cluster collaboration

- Overall, the assessment shows the different **strengths of the economies and cluster landscapes of Indonesia, Malaysia, Thailand and Indonesia**. Thereby, great potential for further deepening the collaboration between the EU and the four Southeast Asian countries emerges. The activities of the ASEAN-EU Dialogue on Science and Technology and the EU Global Gateway initiative as well as the possibility for Southeast Asian innovation actors and intermediaries to participate in the Horizon Europe programme, provide direct links for further collaboration opportunities.
- The ECCP and its services can provide direct contact points for Southeast Asian stakeholders who are looking for collaboration partners. The ECCP provides a tailored overview and various access and networking activities for over **1,200 cluster organisations from EU27 Member States**. As of October 2024, there are no stakeholders from the four Southeast Asian countries currently profiled on the ECCP, indicating potential for future registrations from this region.

01

Economic profile of selected Southeast Asian countries: Indonesia, Malaysia, Thailand & Vietnam

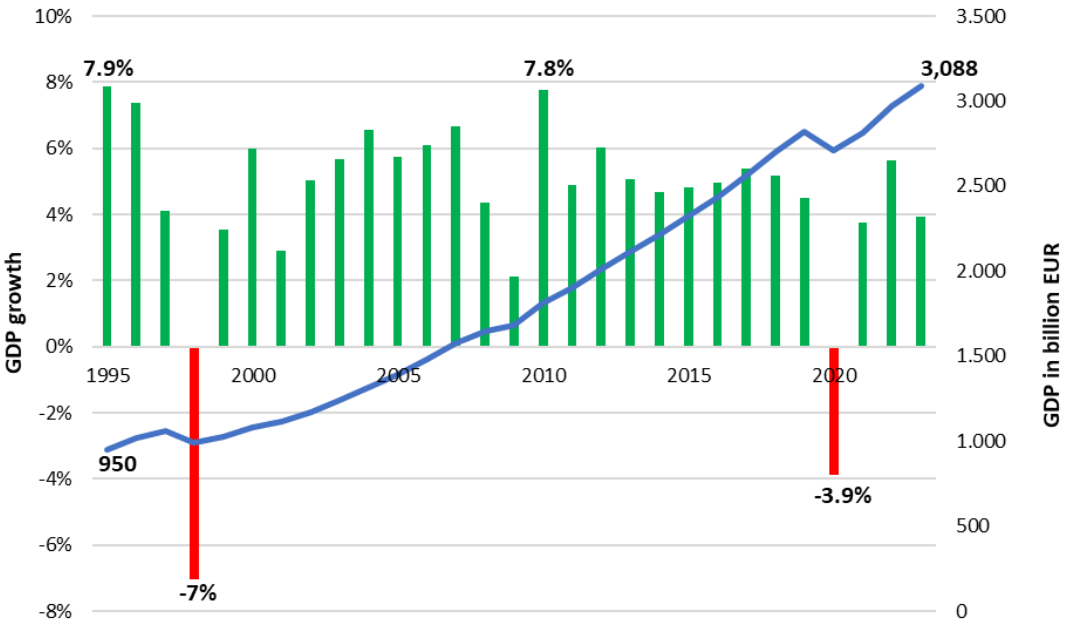
1. Economic profile of selected Southeast Asian countries: Indonesia, Malaysia, Thailand & Vietnam

This section offers an overview of the economic structure and key sectors of four selected Southeast Asian countries—Indonesia, Malaysia, Thailand, and Vietnam. The analysis is based on secondary data sources, such as the World Bank and the UN, to ensure consistent and comparable insights across countries. These four countries have previously been selected based on an assessment of several quantitative and qualitative factors.[2] Each of the countries provides a unique economic structure, which will be presented in the following sub-chapters.

1.1 The Southeast Asian economy

The Southeast Asian economy, represented by the ASEAN Member States[3], exhibits a population of 635.4 million people and demonstrates substantial economic strength, with a combined GDP of approximately EUR 3.5 trillion as of 2023—comparable to the EU27's roughly EUR 17 trillion.[4]

Figure 1: GDP growth (left) and GDP in constant 2015 EUR (right) of Southeast Asia



Source: ECCP (2024), own calculation based on the World Bank. Note: USD has been converted to EUR based on ECB data.

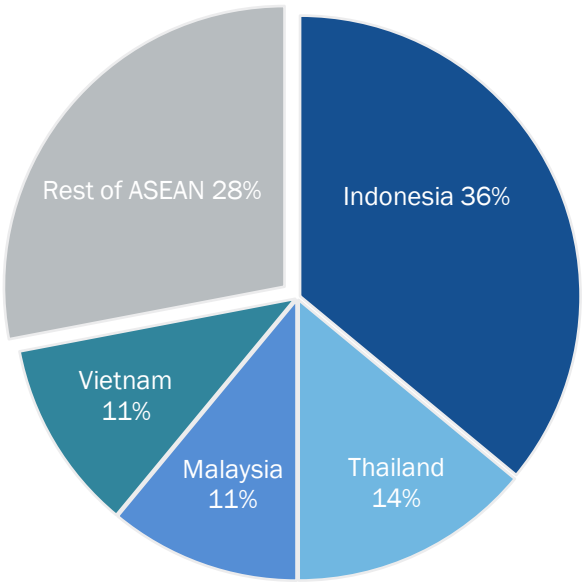
[2] These include the size of the economy, trade volume with the EU27, trade openness, economic complexity.
[3] Member States include Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam
[4] World Bank (2024): GDP (current US$). Data retrieved on 30.09.2024. Note that all figures were converted from USD to EUR according to the USD/EUR conversion rate.

Over the past three decades, the region has experienced robust economic growth, punctuated by the 1997–1998 Asian financial crisis and the 2020 COVID-19 pandemic. Both crises were followed by swift recoveries driven by structural reforms and increased global trade integration. In 2023, ASEAN's GDP (measured in constant 2015 EUR) stood at EUR 3,1 trillion, a remarkable increase from EUR 880.7 billion in 1995, as seen in Figure 1, which reflects the region's sustained economic expansion and resilience.

Among ASEAN members, Indonesia, Malaysia, and Vietnam play a central role in driving the region's economic dynamism. Together, these three countries account for a combined population of 482.5 million, exceeding the EU27's population of 449 million. Economically, they contribute 71.8% of ASEAN's total GDP, amounting to approximately EUR 2.5 trillion. This highlights their importance as engines of growth within the region.

Indonesia stands out as the most significant contributor, as it also is the largest and most populous ASEAN member with a 277.5 million people population and a EUR 1.3 trillion GDP, which represents 36% of the region's total economic output. Thailand follows with a contribution of 14%, while Malaysia and Vietnam each account for 11%. The remaining 28% of ASEAN's GDP is distributed among the other member states, as seen in Figure 2.

Figure 2: Southeast Asian GDP share by country



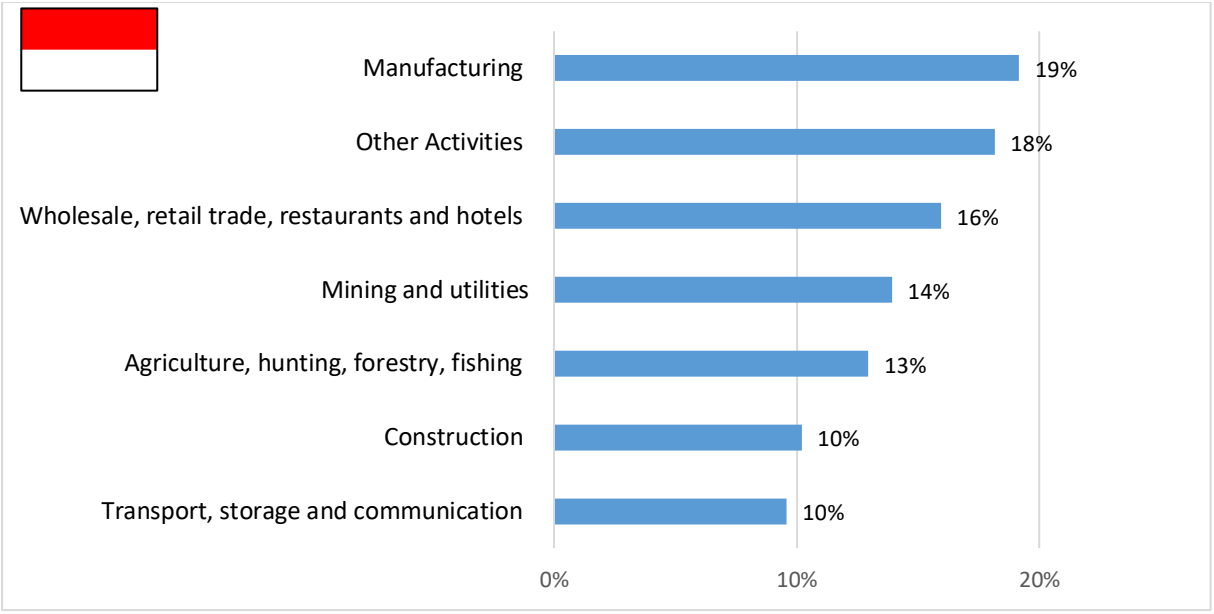
Source: ECCP (2024), own calculation based on the World Bank.

1.2 Indonesia: Economy & key sectors

With a population of 277.5 million, Indonesia is the most populous country in Southeast Asia.[6] In 2023, the country recorded a total GDP of EUR 1.3 trillion (current prices), establishing itself as the largest economy in the region.[7] Its GDP per capita (PPP) in the same year was EUR 14,400, the four-highest of all ASEAN member states due to its large population.[8] Indonesia has demonstrated robust economic growth over the past three decades, with an average annual growth rate of 4.9%.[9] During this period, the country experienced two significant recessions: the 1997 Asian financial crisis and the 2020 COVID-19 pandemic. While Indonesia recovered swiftly from the COVID-19-induced recession, returning to pre-crisis GDP levels within a year, the 1997 Asian financial crisis posed a more severe challenge. The country only surpassed its pre-crisis GDP in 2003, underlining the magnitude of the economic disruption at the time.

Figure 3 illustrates the contribution of various economic sectors to GDP, providing an overview of the **key industries** driving the Indonesian economy. The most significant sector contributing to Indonesia's GDP in 2022 was manufacturing, accounting for 19% of total output, followed closely by "Other Activities" at 18%.[12] Indonesia's growing prominence in the global manufacturing sector is built on a diversified industrial base, which includes key subsectors such as automotive, electronics, textiles, food and beverages, and chemicals.[13] Other major contributors to Indonesia's GDP include wholesale and retail trade, restaurants, and hotels (16%), mining and utilities (14%), agriculture, forestry, and fishing (13%), construction (10%), and transport, storage, and communication (10%).

Figure 3: GDP share by sector in Indonesia, in 2022

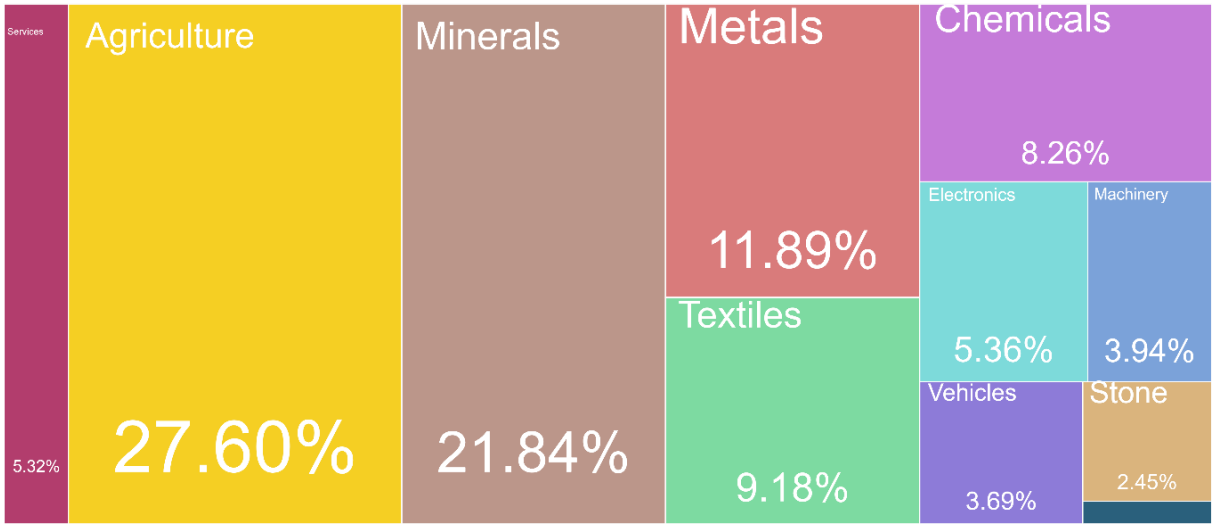


Source: ECCP (2024), own calculation based on UNdata.

[6] World Bank (2024): Population, total . Data retrieved on 30.09.2024.
[7] World Bank (2024): GDP (current US$). Data retrieved on 30.09.2024.
[8] World Bank (2024): GDP per capita, PPP (current international $). Data retrieved on 30.09.2024.
[9] World Bank (2024): GDP (constant 2015 US$). Data retrieved on 30.09.2024.
[12] Classified under UNO as ISIC J-P which comprehend activities such as financial & insurance activities, public administration and defence or education.
[13] See https://www.svigloballtd.com/sourcing/indonesia-manufacturing/#:~:text=Key%20Manufacturing%20Industries%20in%20Indonesia%201%201%29%20Automotive,Beverages%20Industry%3A%20...%205%205%29%20Chemical%20Industry%3A%20 (last access 08.11.2024) .

Figure 4 provides an overview of the **leading export sectors**, highlighting their share of total exports. Although the manufacturing sector is Indonesia's most important GDP contributor, it is in the primary sector where Indonesia finds its most significant contribution to exports. Agriculture (28%), mainly animal and vegetal fats and oils, and Mineral (22%) entail the most relevant part of Indonesian exports. Concerning agricultural exports, Indonesia is the world's largest producer and exporter of palm oil.[15] Additionally, if the mineral exports are closely regarded, it instantly stands out that Indonesia is the world's largest exporter of thermal coal, while it is an undisputable leading producer and exporter of liquefied natural gas.[16] Manufactured goods also play a significant role in Indonesia's export profile, with metal products comprising 12% and textiles accounting for 9% of total exports. The services sector contributes 5% to Indonesia's total exports.

Figure 4: Indonesia's composition of Export Sectors by share, in 2021



Source: Atlas of Economic Complexity (2024).

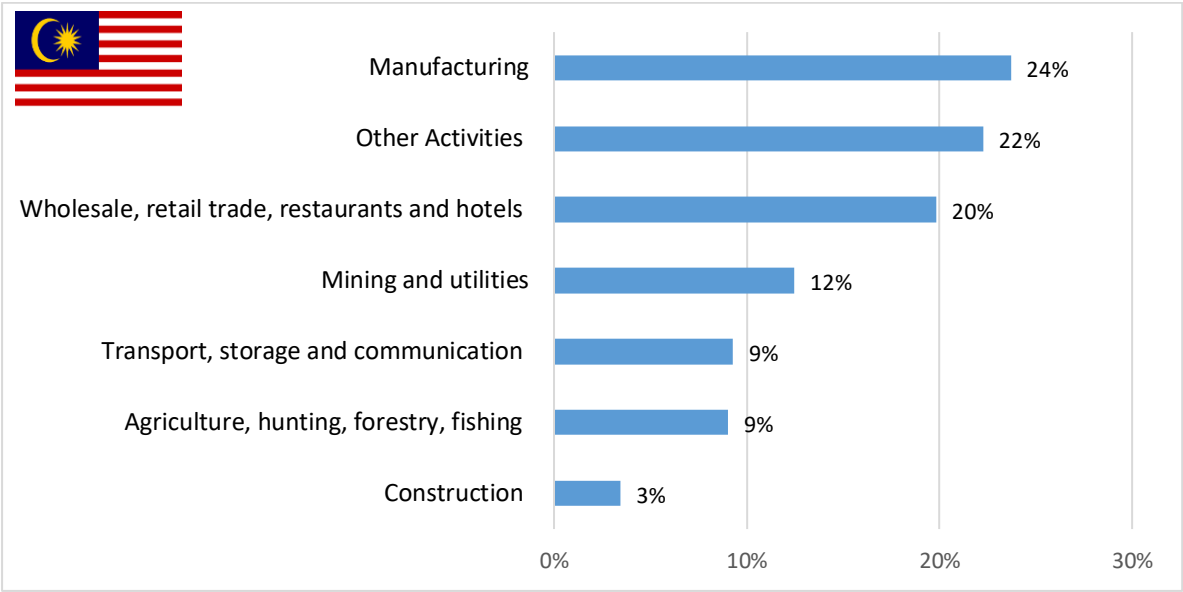
[15] See https://www.trade.gov/country-commercial-guides/indonesia-agriculture (last access 08.11.2024).
[16] See https://investinasia.id/blog/indonesia-biggest-export/#:~:text=What%20is%20Indonesia%E2%80%99s%20top%20export%3F%20Indonesia%E2%80%99s%20most%20significant,category%20includes%20coal%2C%20crude%20oil%2C%20and%20natural%20gas. (last access 08.11.2024) .

1.3 Malaysia: Economy & key sectors

With a 34.3 million people population, Malaysia is the sixth most populous country in Southeast Asia.[17] In 2023, the country recorded a total GDP of EUR 369.6 billion (current prices), establishing itself as the sixth-largest economy in the region.[18] Its GDP per capita (PPP) in the same year was EUR 34,400, the third-highest among all ASEAN member states behind Singapore and Brunei Darussalam.[19] Malaysia has demonstrated robust economic growth over recent decades, with an average annual growth rate of 5.6%.[20] The country has experienced recessions only during major global economic crises, including the 1997 Asian financial crisis, the 2008 global financial crisis, and the COVID-19 pandemic in 2020.

Figure 5 illustrates the contribution of various economic sectors to GDP, providing an overview of the **key industries** driving the Malaysian economy. In 2022, Manufacturing was the most significant sector in Malaysia's economy, accounting for 24% of GDP. This sector is a key driver of Malaysia's economic development, with industries such as automotive, electronics, textiles, and chemicals playing pivotal roles in the national economy.[21] The second-largest contributor to GDP was "Other Activities" [22], encompassing financial and insurance services, public administration, and education, which collectively represented 22% of GDP. The wholesale, retail trade, restaurants, and hotels sector, rooted in services, followed closely as the third-largest contributor, accounting for 20% of GDP. Other sectors that also made significant contributions to GDP include mining and utilities (12%), transport, storage, and communication (9%), agriculture, forestry, and fishing (9%), and construction (3%).

Figure 5: GDP share by sector in Malaysia

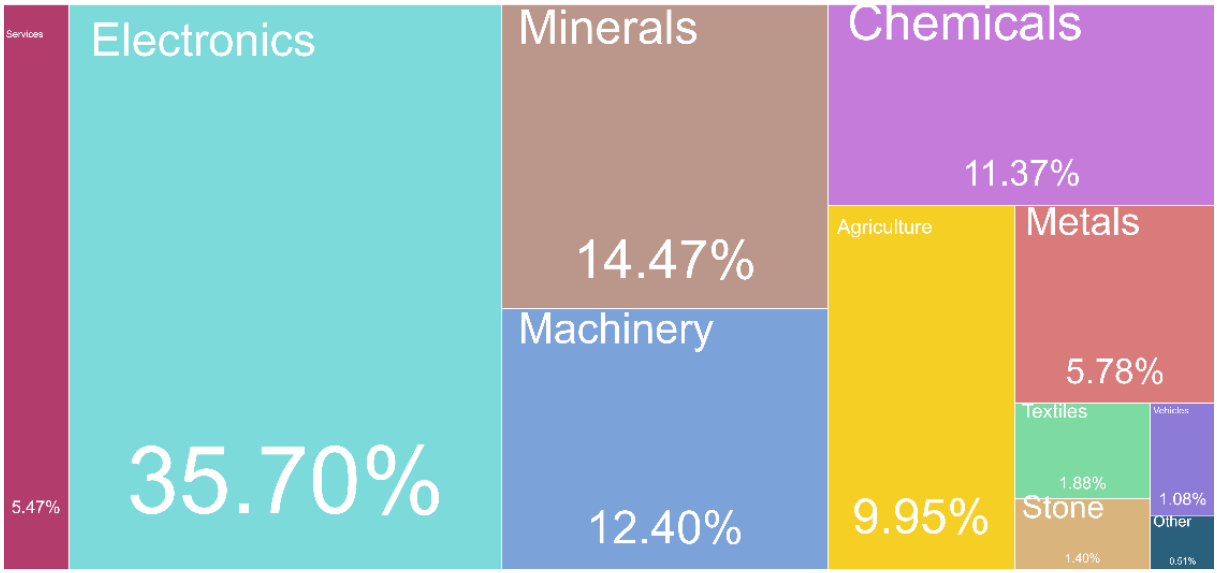


Source: ECCP (2024), own calculation based on UNdata.

[17] World Bank (2024): Population, total .Data retrieved on 30.09.2024.
[18] World Bank (2024): GDP (current US$). Data retrieved on 30.09.2024.
[19] World Bank (2024): GDP per capita, PPP (current international $). Data retrieved on 30.09.2024.
[20] World Bank (2024): GDP (constant 2015 US$). Data retrieved on 30.09.2024.
[21] See https://www.statista.com/topics/9307/manufacturing-industry-in-indonesia/#:~:text=Today%2C%20this%20sector%20stands%20tall%20as%20Indonesia%27s%20largest,the%20leading%20GDP%20contributors%20from%20manufacturing%20in%20Indonesia (last access 08.11.2024)
[22] Classified under UNO as ISIC J-P which comprehend activities such as financial & insurance activities, public administration and defence or education.

Figure 6 provides an overview of the **leading export sectors** in Malaysia, highlighting their share of total exports. As Malaysia's leading economic sector, manufacturing drives the country's export profile, with electronics comprising 36% of total exports. Malaysia is a major player in the Southeast Asian electronics industry, exporting products such as semiconductors, electrical machinery, and components.[24] The primary destinations for these electronics exports are China and Singapore, with the US and the EU also serving as critical trading partners. The significance of the mining sector in Malaysia's GDP is reflected in its export profile, with minerals accounting for 15% of total exports. This sector has gained strategic importance recently due to Malaysia's reserves of critical minerals such as nickel, which are becoming increasingly essential for industries like electric vehicle production. The third-largest export category is machinery, representing 12% of total exports. This sector is particularly specialised in machine tools, which are widely utilised in automotive production.[25]

Figure 6: Malaysia's composition of Export Sectors by share, in 2021



Source: Atlas of Economic Complexity (2024).

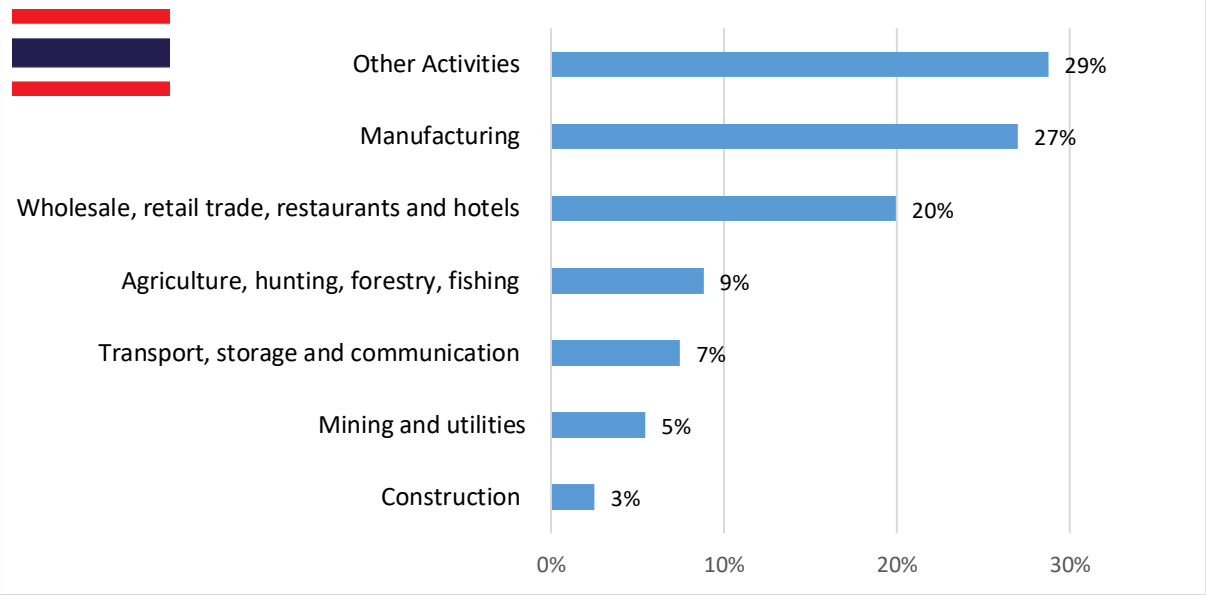
[24] See https://www.bcg.com/publications/2021/asean-manufacturing (last access 08.11.2024)
[25] See https://www.mida.gov.my/industries/manufacturing/machinery-metal/machinery-metal-machinery-equipment/#:~:text=M%26E%20Export%20Performance%20In%20the%20first%20seven%20months,billion%20in%202021%2C%20comprising%204%25%20of%20total%20exports (last access 08.11.2024)

1.4 Thailand: Economy & key sectors

With a population of 71.8 million, Thailand is the fourth most populous country in Southeast Asia.[29] In 2023, the country recorded a total GDP of EUR 423.4 billion (current prices), establishing itself as the second-largest economy in the region.[30] Its GDP per capita (PPP) in the same year was EUR 21,500, the fourth-highest.[31] Thailand's GDP has grown significantly over the past few decades, reaching its highest level in 2019 at EUR 423.4 billion (constant 2015 EUR). However, the COVID-19 pandemic led to a decline in economic output, and as of 2023, Thailand's GDP remains slightly below its pre-pandemic peak at EUR 421.8 billion. Although economic growth has slowed in recent years, the country has maintained an average growth rate of 3% over the past 30 years, albeit with greater volatility compared to other Southeast Asian nations analysed in this paper. [32]

Figure 7 illustrates the contribution of various economic sectors to GDP, providing an overview of the **key industries** driving Thailand's economy. According to the figure, Thailand's highest contribution to GDP, entailing 29% of the total GDP, comes from the "Other Activities" [33], which includes sectors such as financial and insurance services, public administration, and education. "Manufacturing", the second most significant contributor, represents 27% of GDP. The competitiveness of Thailand's manufacturing sector can be attributed to factors such as abundant raw materials, low-cost labour, and the adoption of innovative technologies. Within the service sector, "Wholesale, retail trade, restaurants, and hotels" ranks as the third most important contributor, accounting for 20% of GDP. Other notable sectors include "Agriculture, hunting, forestry, and fishing" (9%), "Transport, storage, and communication" (7%), "Mining and utilities" (5%), and "Construction" (3%).

Figure 7: GDP share by sector in Thailand



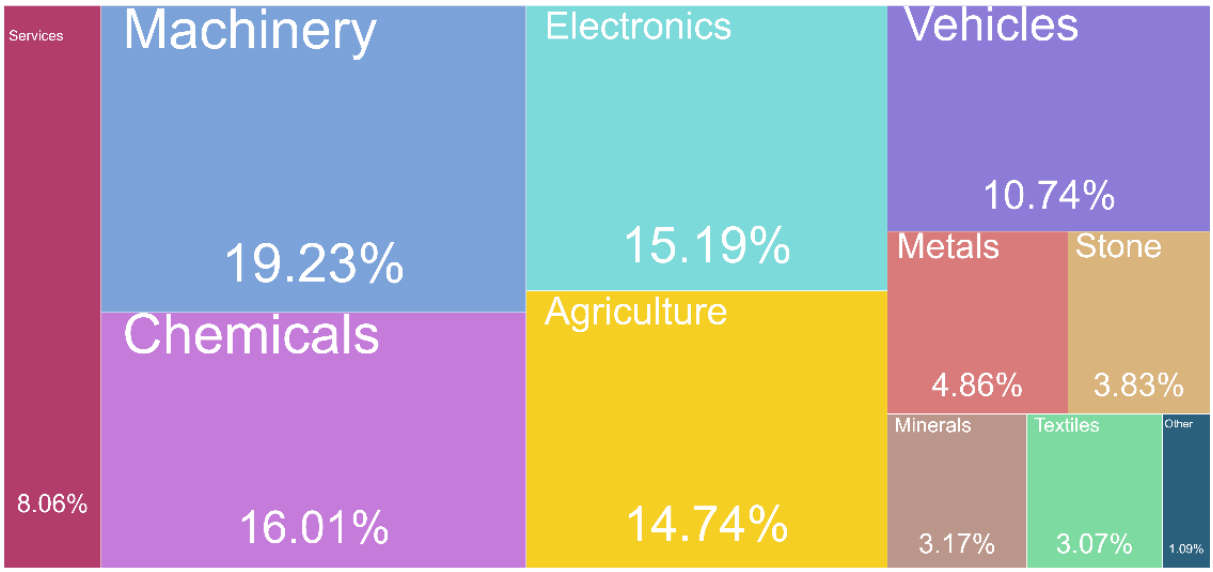
Source: ECCP (2024), own calculation based on UNdata.

Figure 8 provides an overview of the **leading export sectors** in Thailand, highlighting their share of total exports. Thailand's export profile is dominated by activities within the manufacturing sector. Machinery exports hold the largest share, accounting for 19% of total exports. These exports primarily consist of electrical machinery and

[29] World Bank (2024): Population, total .Data retrieved on 30.09.2024.
[30] World Bank (2024): GDP (current US$). Data retrieved on 30.09.2024.
[31] World Bank (2024): GDP per capita, PPP (current international $). Data retrieved on 30.09.2024.
[32] World Bank (2024): GDP (constant 2015 US$). Data retrieved on 30.09.2024.
[33] Classified under UNO as ISIC J-P which comprehend activities such as financial & insurance activities, public administration and defence or education.

industrial equipment, which are mainly destined for regional trade partners such as China, Japan, and other ASEAN member states.[35] The chemical industry ranks second, contributing 16% of total exports. This sector is not only vital to Thailand's economy due to its export value but also because of its role in supporting the production of a wide range of goods, both domestically and for Thailand's international trade partners. [36] Electronics exports rank third, accounting for 15% of total exports, underscoring the importance of Thailand's industrial base in driving its export-oriented economy.

Figure 8: Thailand's composition of Export Sectors by share, in 2021



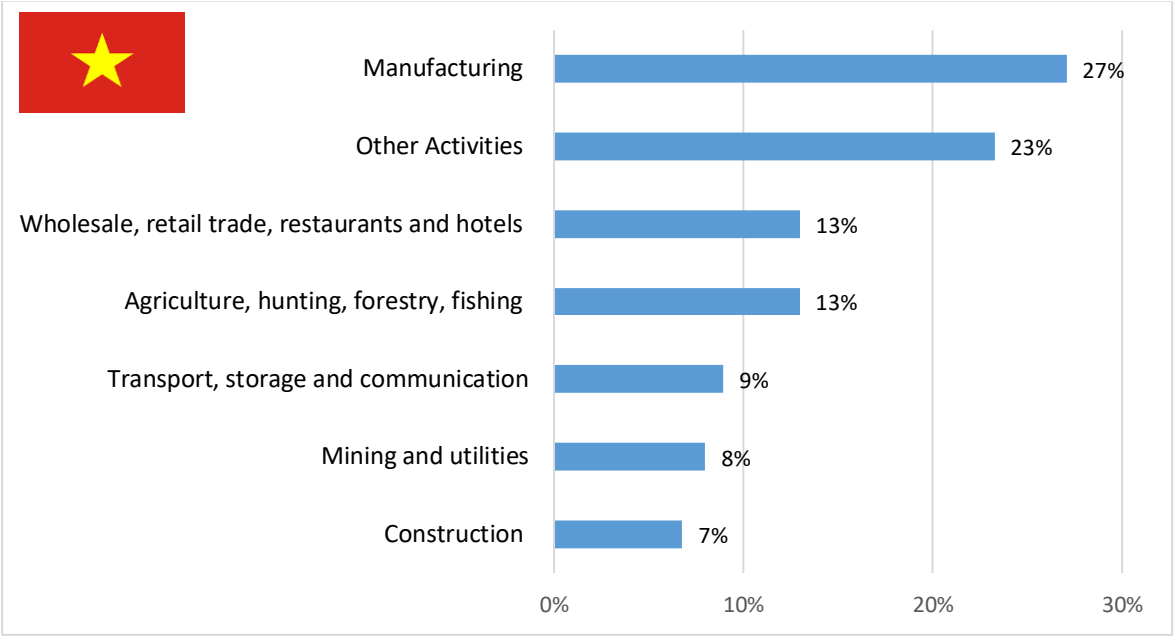
Source: Atlas of Economic Complexity (2024).

[35] Apaitan et al. (2019): Dissecting Thailand's International Trade: Evidence from 88 Million Export and Import Entries. Available online: https://www.adb.org/sites/default/files/publication/488961/adr-vol36no1-2-dissecting-thailand-trade.pdf (last access 08. 11. 2024).
[36] ibid.

1.5 Vietnam: Economy & key sectors

With a population of 98.9 million people, Vietnam is the third most populous country in Southeast Asia.[39] In 2023, the country recorded a total GDP of EUR 429.7 billion (current prices), establishing itself as the fifth-largest economy in the region.[40] Its GDP per capita (PPP) in the same year was EUR 14,044, the sixth-highest among all ASEAN member states and lowest among the Southeast Asian countries analysed in this paper.[41] Vietnam has exhibited consistent GDP growth over the past few decades, with an average annual rate of nearly 7%.[42]

Figure 9: GDP share by sector in Vietnam



Source: ECCP (2024), own calculation based on UNdata.

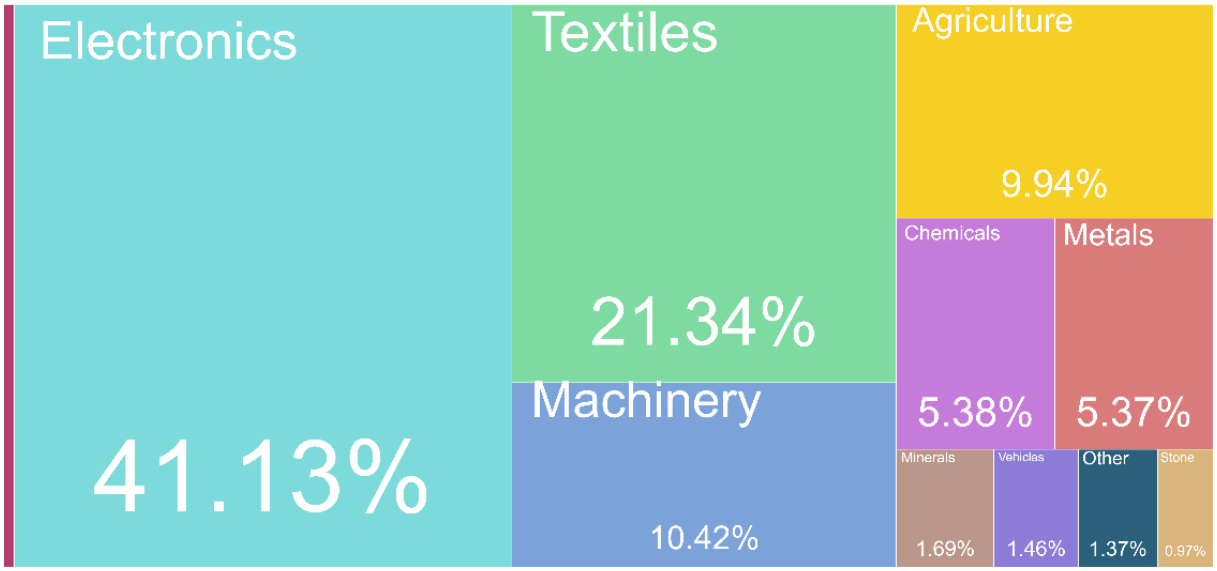
Figure 9 illustrates the contribution of various economic sectors to GDP, providing an overview of the **key industries** driving Vietnam's economy. Vietnam's Manufacturing sector is the largest contributor to GDP, accounting for 27% of total economic output. This sector is predominantly driven by foreign investment, drawn by Vietnam's low labour costs. However, despite significant foreign involvement, the manufacturing sector faces notable challenges, including low labour productivity, dependence on external supply chains, and a shortage of skilled workers.[43] The second-largest contributor to Vietnam's GDP is the "Other Activities"[44] category, which includes financial and insurance services, education, and defence, representing 23% of GDP. "Wholesale, retail trade, restaurants, and hotels" and the primary sector, "Agriculture, hunting, forestry, and fishing", each account for 13% of GDP. Concerning the tourism industry, Vietnam still must recover from the shock caused by the Covid-

[39] World Bank (2024): Population, total .Data retrieved on 30.09.2024.
[40] World Bank (2024): GDP (current US$). Data retrieved on 30.09.2024.
[41] World Bank (2024): GDP per capita, PPP (current international $). Data retrieved on 30.09.2024.
[42] World Bank (2024): GDP (constant 2015 US$). Data retrieved on 30.09.2024.
[43] See https://www.mckinsey.com/featured-insights/asia-pacific/boosting-vietnams-manufacturing-sector-from-low-cost-to-high-productivity (last access 08.11.2024).
[44] Classified under UNO as ISIC J-P which comprehend activities such as financial & insurance activities, public administration and defence or education.

19 pandemic.[45] Additionally, "Transport, storage and communication" (9%), "Mining and utilities" (8%) and "Construction" (7%), also play a crucial role in Vietnam's economy.

Figure 10 provides an overview of the **leading export sectors** in Vietnam, highlighting their share of total exports. Reflecting the manufacturing sector's significant contribution to Vietnam's GDP, the country's top three export categories are also rooted in this sector. The electronics industry is the most prominent, accounting for 41% of Vietnam's total exports. Vietnam has emerged as one of the world's leading mobile phone producers, with this industry experiencing steady growth over the past several years.[46] Textiles rank second, comprising 21% of total exports, followed by machinery exports, which account for 10%. While the machinery industry appears relatively stable, the textile sector has recently encountered challenges due to a drop in demand from major import markets such as the United States, Japan, and South Korea, driven by the global economic slowdown. These figures highlight the pivotal role of manufacturing in Vietnam's export profile while also reflecting the vulnerabilities of certain industries to external economic pressures. [47]

Figure 10: Vietnam's composition of Export Sectors by share, in 2021



Source: Atlas of Economic Complexity (2024).

[45] See https://www.mckinsey.com/featured-insights/asia-pacific/reimagining-tourism-how-vietnam-can-accelerate-travel-recovery (last access 08.11.2024).
[46] See https://wtocenter.vn/tin-tuc/23001-vietnams-electronics-industry-a-guide-to-emerging-opportunities (last access 08.11.2024).
[47] See https://vietnamnews.vn/economy/1481960/textile-industry-faces-headwinds-in-2023-after-poor-results-in-q4.html (last access 08.11.2024).

02

EU27 business & value chains with Indonesia, Malaysia, Thailand & Vietnam

EUROPEAN CLUSTER COLLABORATION PLATFORM

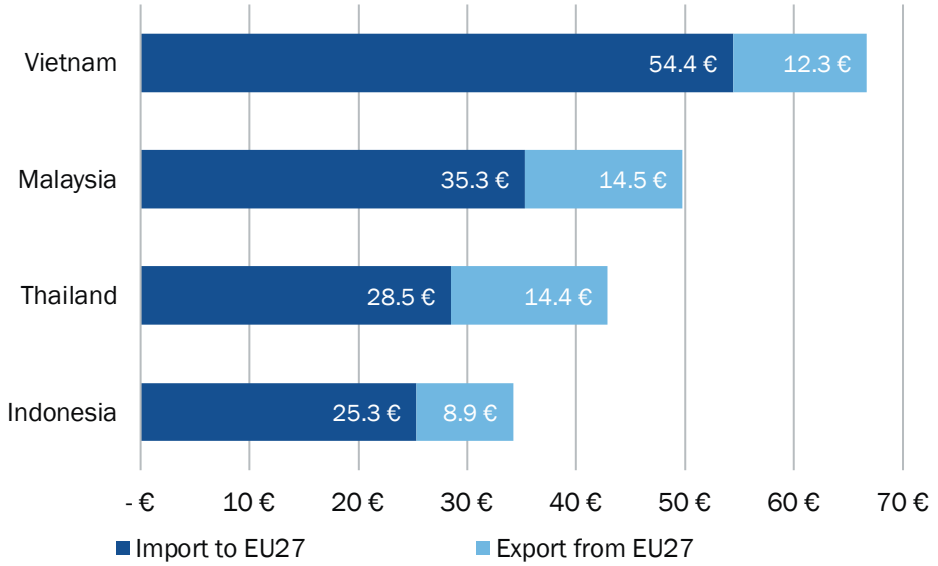
Strengthening the European economy through collaboration

2. EU27 business & value chains with Indonesia, Malaysia, Thailand & Vietnam

This chapter focuses on outlining important value chains between the EU27 and Indonesia, Malaysia, Thailand & Vietnam. Thereby, the most relevant trading partners for the selected Southeast Asian countries from the EU27 will be shown as well as the key sectors & commodities that dominate the trade flows between the mentioned regions. To gain insights into the trade flows between the EU27 Member States and the Southeast Asian countries, the UN Comtrade database is used as a key source of information.

As a comparative overview, the following Figure 11 shows the **trade volumes** between Indonesia, Malaysia, Thailand & Vietnam and the EU27 by imports and exports. The largest trade volume is found in the trade relations between the EU and Vietnam which amounts to around EUR 67 billion. Malaysia follows behind with a total trade volume with the EU amounting to around EUR 50 billion. The total trade volume between the EU and Thailand totals to around EUR 43 billion and the trade volume between the EU and Indonesia amounts to around EUR 34 billion. Additionally, it becomes evident that European imports from Vietnam (EUR 54.5 billion) account for the majority of imports to the EU27 from the four selected countries while European exports to Malaysia (EUR 35.3 billion) account for the majority of exports from the EU27 to the four countries.

Figure 11: Trade volume between Indonesia, Malaysia, Thailand & Vietnam and the EU27, by import / export, values in billion EUR



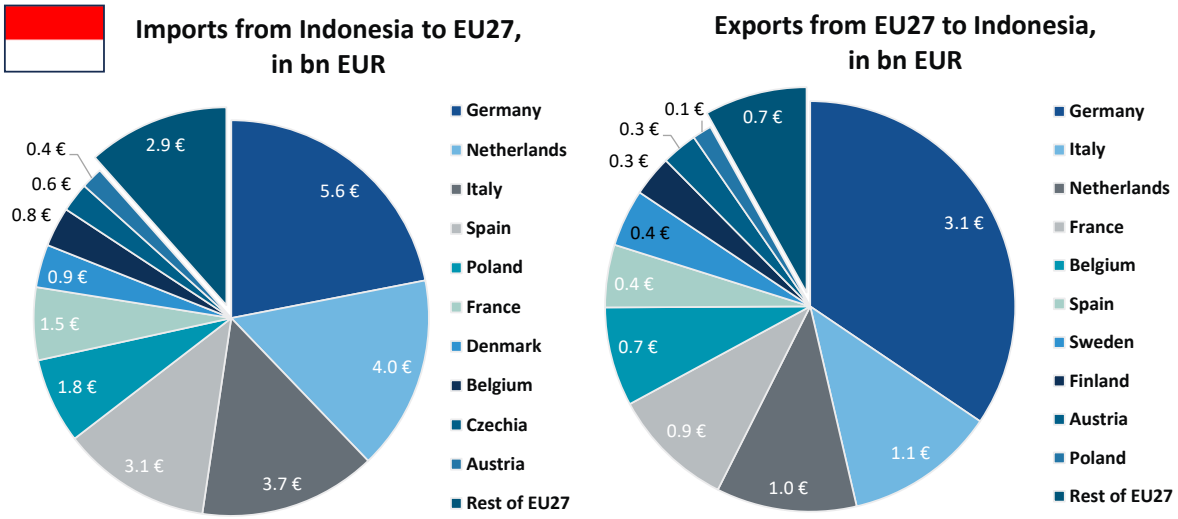
Source: ECCP (2024). Own calculation based on UN Comtrade data. Data exported 22.08.2024.

In the following sub-chapters, the most important trading partners as well as traded goods and commodities are examined by each of the selected Southeast Asian countries.

2.1 EU27 and Indonesia: Analysis of business & value chains

Figure 12 illustrates the ten most important EU27 trading partners for Indonesia by imports to the EU27 and exports from the EU27 in 2022. On the side of the imports from Indonesia to the EU27, the majority of imports can be linked to Germany (EUR 5.6 billion), the Netherlands (EUR 4.0 billion) and Italy (EUR 3.7 billion). Together, these three countries represent more than 50% of all imports from Indonesia to the EU27. On the export side, Germany (EUR 3.1 billion), Italy (EUR 1.1 billion) and the Netherlands (EUR 1.0 billion) are also the most relevant trading partners for Indonesia. Concerning this assessment, negotiations are underway for a Free Trade Agreement between the EU and Indonesia, aimed at enhancing market access, boosting trade and investment between the two economies, and supporting sustainable development. Negotiations were launched in 2016 and the 19th round of negotiations was held in July 2024.[50]

Figure 12: 10 most important EU27 trading partners for Indonesia, by imports to EU27 and export from the EU27 in 2022, values in billion EUR



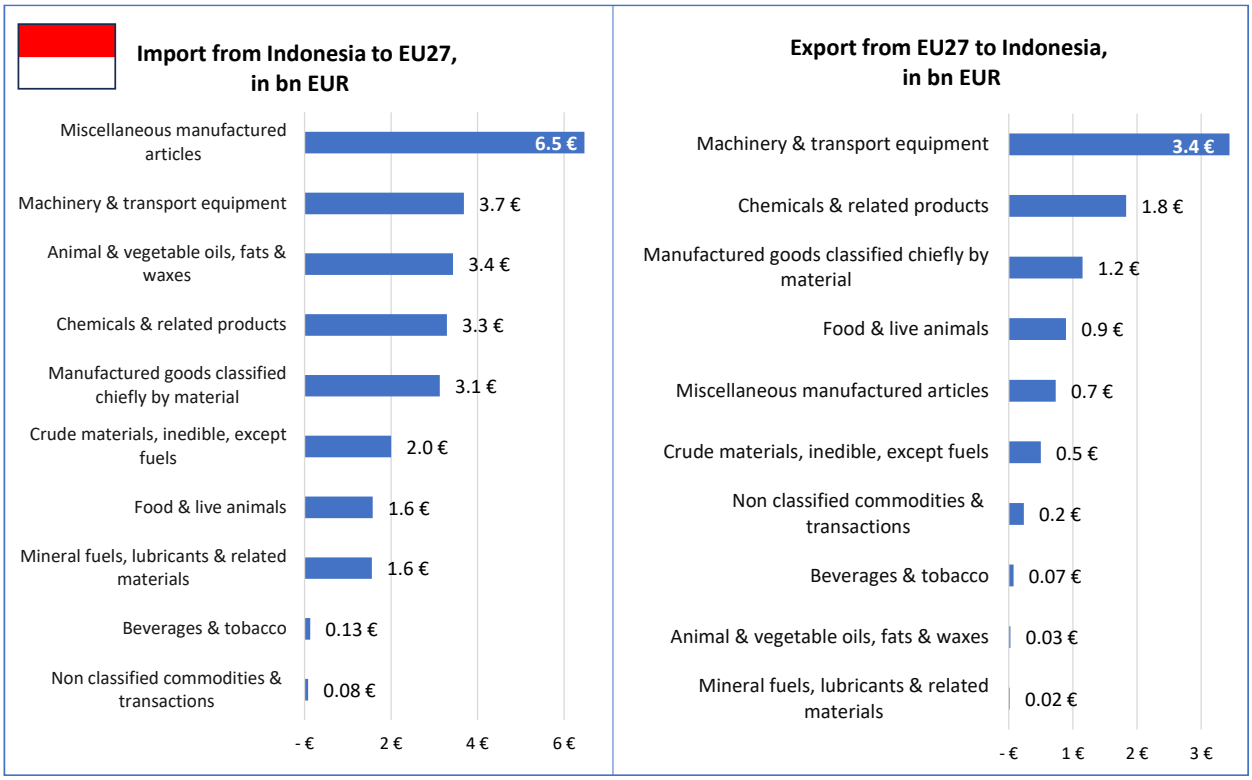
Source: ECCP (2024). Own calculation based on UN Comtrade data. Data exported 22.08.2024.

Figure 13 below illustrates the traded goods between the EU27 and Indonesia by imports to EU27 and exports from the EU27 in 2022. Key findings that emerge from this analysis are that **manufactured articles** account for 25% of all imports from Indonesia to the EU27 Member States. Next to this, the trade of **machinery and transport equipment** accounts for 21% of total trade between the EU and Indonesia which points to the relevance of the **Mobility-Transport-Automotive** industrial ecosystem.[51] Similarly, value chains linked to the Agri-food industrial ecosystem account for 18% of the total trade volume between the EU and Indonesia. Moreover, products from **Energy Intensive Industries** such as chemicals and related products account for 15% of the total trade volume between the EU and Indonesia which is also reflected in the economic analysis in Chapter 1.1.

[50] See https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/indonesia/eu-indonesia-agreement_en (last access 05.11.2024).

[51] The concept of the EU Industrial ecosystem has been introduced as part of the "A new industrial strategy for Europe" of the European Commission to provide an analytical tool which is not related to a fixed nomenclature. for more information on the Industrial ecosystems see https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/european-industrial-strategy_en (last access 29.11.2024).

Figure 13: Overview of traded goods between the EU27 & Indonesia, by imports to EU27 and exports from the EU27 in 2022, values in billion EUR

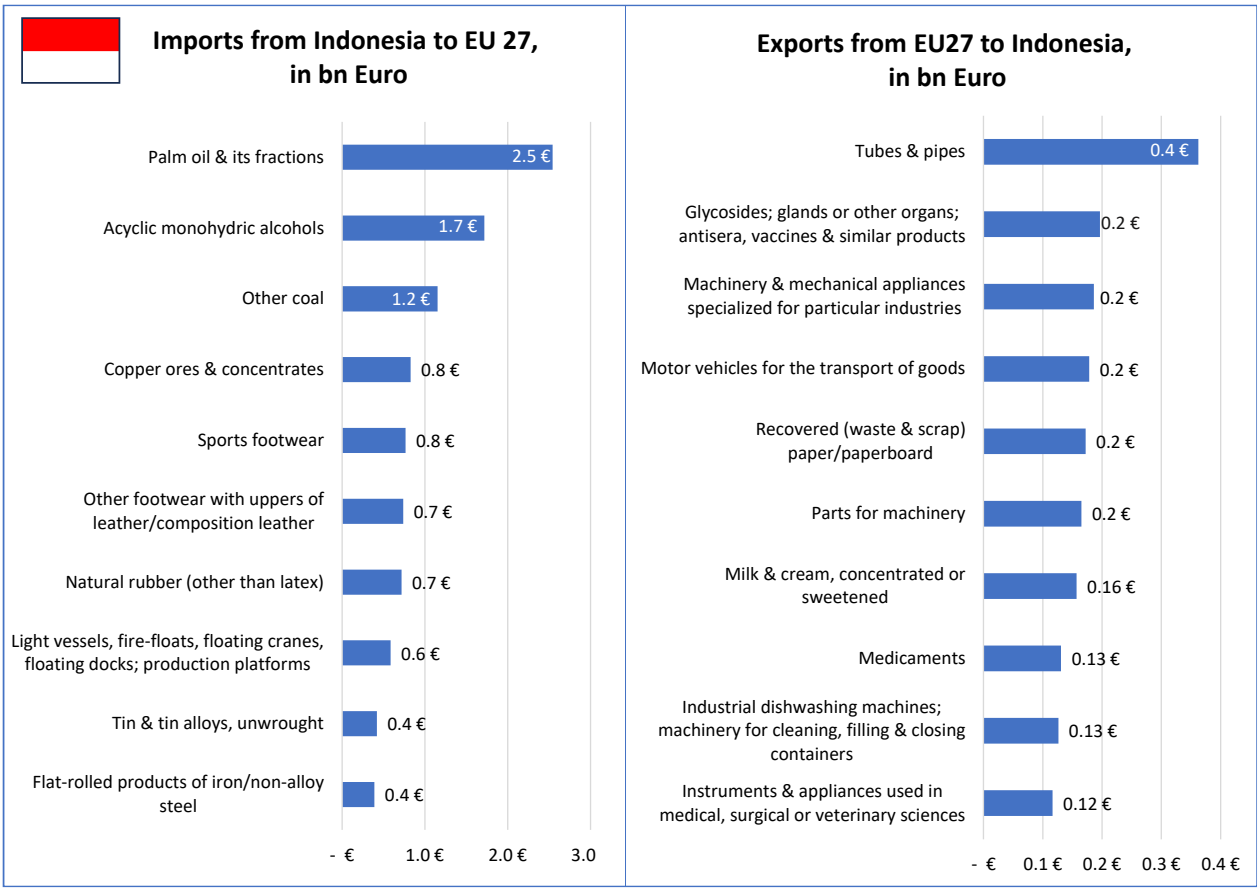


Source: ECCP (2024). Own calculation based on UN Comtrade data. Data exported 22.08.2024.

Moving on to a more granular analysis of traded commodities, Figure 14 below shows the ten most important commodities traded between the EU27 & Indonesia by import to and export from EU27 in 2022. This figure demonstrates that the most important commodity imported from Indonesia to the EU is palm oil which indicates the relevance of the **Agri-food** value chains for the trade relations between the EU and Indonesia. Here, one can highlight that Indonesia is the world's largest exporter of palm oil.[52] The strength of the Indonesian agricultural sector is also presented in Chapter 1.1. Next to this, many different **raw materials** such as copper ores, coal and rubber are among the most important imported commodities from Indonesia to the EU. However, in this context, it is important to highlight that Indonesia is strongly working on reducing its export of raw materials (and especially palm oil).[53] The analysis of the ten most important commodities imported from Indonesia also reveals the relevance of supply chains linked to the **Textile** industrial ecosystems since different types of footwear are among the most imported commodities. Moreover, imports from Indonesia to the EU such as tin, iron and steel point to the relevance of **Energy Intensive Industries** in the trade relations between the EU and Indonesia. On the export side, there are different commodities that are linked to the industrial ecosystem **Health** (e.g., glycosides; vaccines, medicaments and medical appliances).

[52] see https://www.sei.org/features/indonesian-palm-oil-exports-and-deforestation/ (last access 23.10.2024).
[53] see https://setkab.go.id/en/govt-committed-to-stop-raw-material-exports/ (last access 23.10.2024).

Figure 14: 10 most important commodities traded between the EU27 & Indonesia, by import to EU27 & export from EU27 in 2022, values in billion EUR

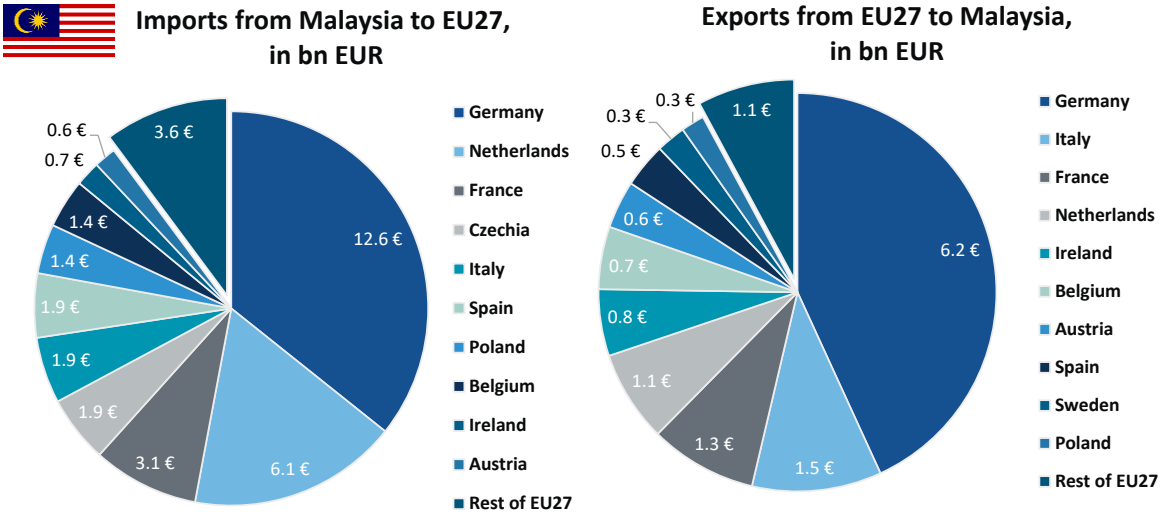


Source: ECCP (2024). Own calculation based on UN Comtrade data. Data exported 22.08.2024.

2.2 EU27 and Malaysia: Analysis of business & value chains

Moving on to the analysis of important business and value chains between the EU and Malaysia, Figure 15 presents the ten most important EU27 trading partners for Malaysia by imports to and exports from the EU27 in 2022. One finding that emerges from this overview is that the imports from Malaysia to the EU are dominated by two countries: Germany (EUR 12.6 billion) and the Netherlands (EUR 6.1 billion) which together account for more than 50% of all imports from Malaysia. On the export side, Germany's exports account for EUR 6.2 billion representing 43% of all EU exports to Malaysia. Behind, Italy (EUR 1.5 billion) and France (EUR 1.3 billion) follow Germany with very solid performances. Negotiations for a Free Trade Agreement between the EU and Malaysia have been on hold since 2012. A new assessment of the positions of the EU & Malaysia took place in 2023.[54]

Figure 15: 10 most important EU27 trading partners for Malaysia, by imports to EU27 and exports from the EU27 in 2022, values in billion EUR

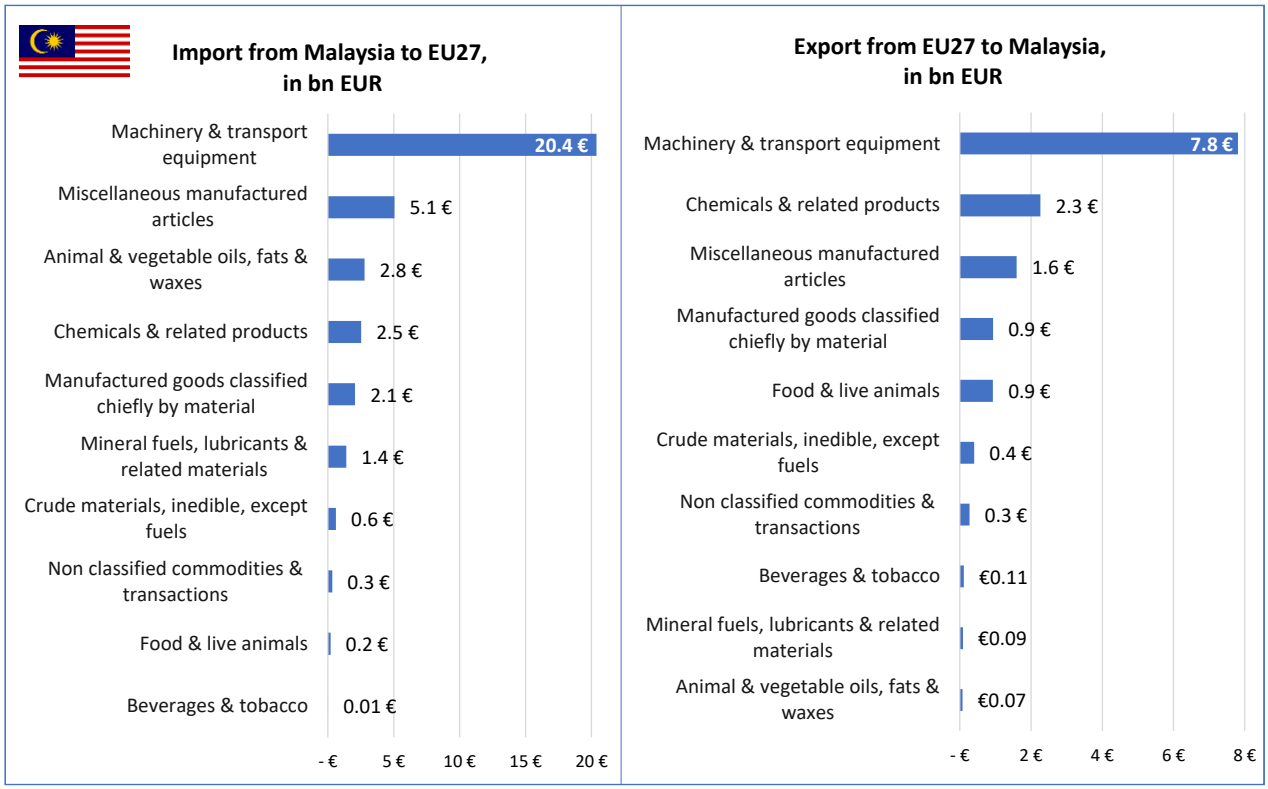


Source: ECCP (2024). Own calculation based on UN Comtrade data. Data exported 22.08.2024.

Figure 16 illustrates traded goods between the EU27 and Malaysia by imports to EU27 and exports from the EU27 in 2022. This examination shows the dominance of **machinery and transport** equipment which account for 57% of all traded goods in the trade relations between the EU and Malaysia. Next to this, animal and vegetable fats are among the most relevant imported goods to the EU which points to the importance of the **Agri-food** industrial ecosystem in the trade relations of the EU and Malaysia. **Chemicals** account for almost EUR 5 billion in traded goods or 10% of all the traded goods between the EU and Malaysia.

[54] See also https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/malaysia_en (last access 05.11.2024).

Figure 16: Overview of traded goods between the EU27 & Malaysia, by imports to EU27 and exports from the EU27 in 2022, values in billion EUR



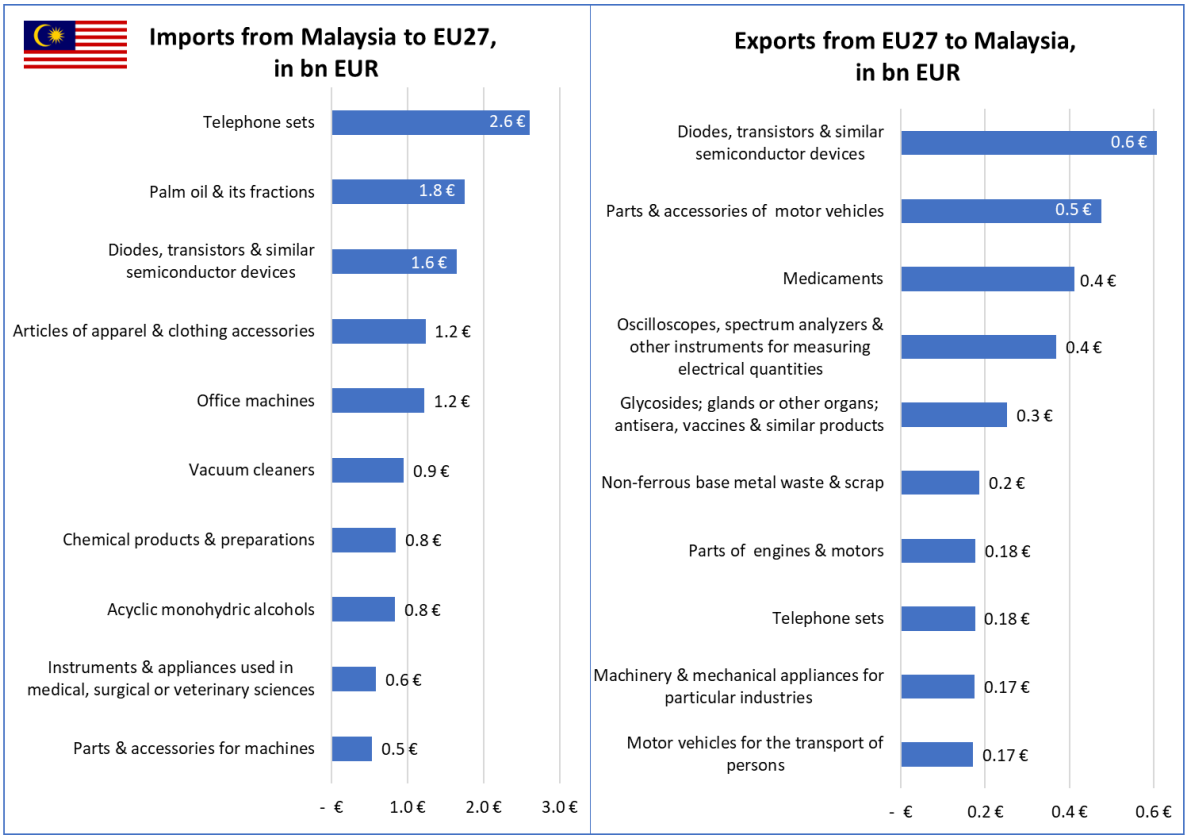
Source: ECCP (2024). Own calculation based on UN Comtrade data. Data exported 22.08.2024.

The assessment of the ten most important commodities traded between the EU27 and Malaysia by import to EU27 and export from EU27 in 2022 (see Figure 17) illustrates the relevance of value chains linked to the EU industrial ecosystem **Electronics** for the trade relations of the EU and Malaysia. Here, different commodities such as semiconductor devices or commodities for measuring electrical quantities are among the most traded commodities between the two regions. This evidences the Malaysian semiconductor industry's power over the past years.[55]

Moreover, the ten most important traded commodities also point to the relevance of the **Health** ecosystem in the trade relations of the EU and Malaysia since commodities such as medicaments, vaccines and surgical instruments are among those most traded commodities. Similar to the assessment of traded commodities between the EU and Indonesia, the imports of palm oil as part of **Agri-food** value chains are the second most imported commodity from Malaysia to the EU. In this context, one can mention that Malaysia is the world's second-largest producer of palm oil after Indonesia.[56] The trade of commodities such as motor vehicles as well as parts of motor vehicles and engines, contributes to the relevant emergence of the **Mobility-Transport-Automotive** ecosystem in the EU-Malaysian trade relations.

[55] see https://www.weforum.org/videos/malaysia-semiconductors/ (last access 23.10.2024).
[56] see https://fas.usda.gov/data/production/commodity/4243000 (last access 23.10.2024).

Figure 17: 10 most important commodities traded between the EU27 & Malaysia, by import to EU27 & export from EU27 in 2022, values in billion EUR

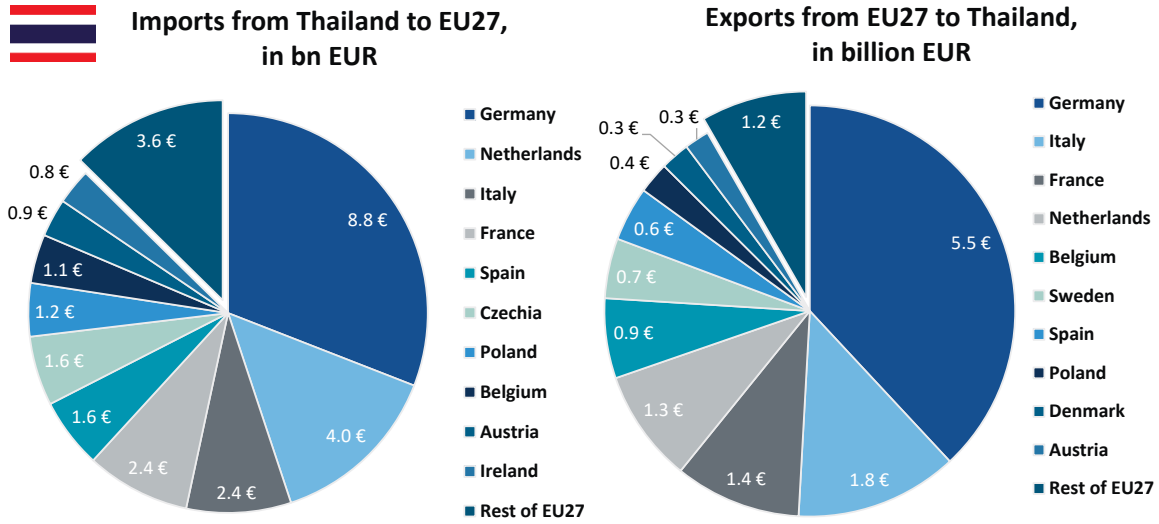


Source: ECCP (2024). Own calculation based on UN Comtrade data. Data exported 22.08.2024.

2.3 EU27 and Thailand: Analysis of business & value chains

Figure 18 shows the ten most important EU27 trading partners for Thailand by imports to the EU27 and exports from the EU27 in 2022. The three most important importers of goods from Thailand are Germany (EUR 8.8 billion), the Netherlands (EUR 4.0 billion) and Italy (EUR 2.4 billion). On the export side, more than 50% of all EU exports to Thailand are linked to Germany (EUR 5.5 billion) and Italy (EUR 1.8 billion). Negotiations for an EU-Thailand Free Trade Agreement were relaunched in 2023, aiming to improve market access, boost trade and investment, and support sustainability.[57]

Figure 18: 10 most important EU27 trading partners for Thailand, by imports to EU27 and exports from the EU27 in 2022, values in billion EUR

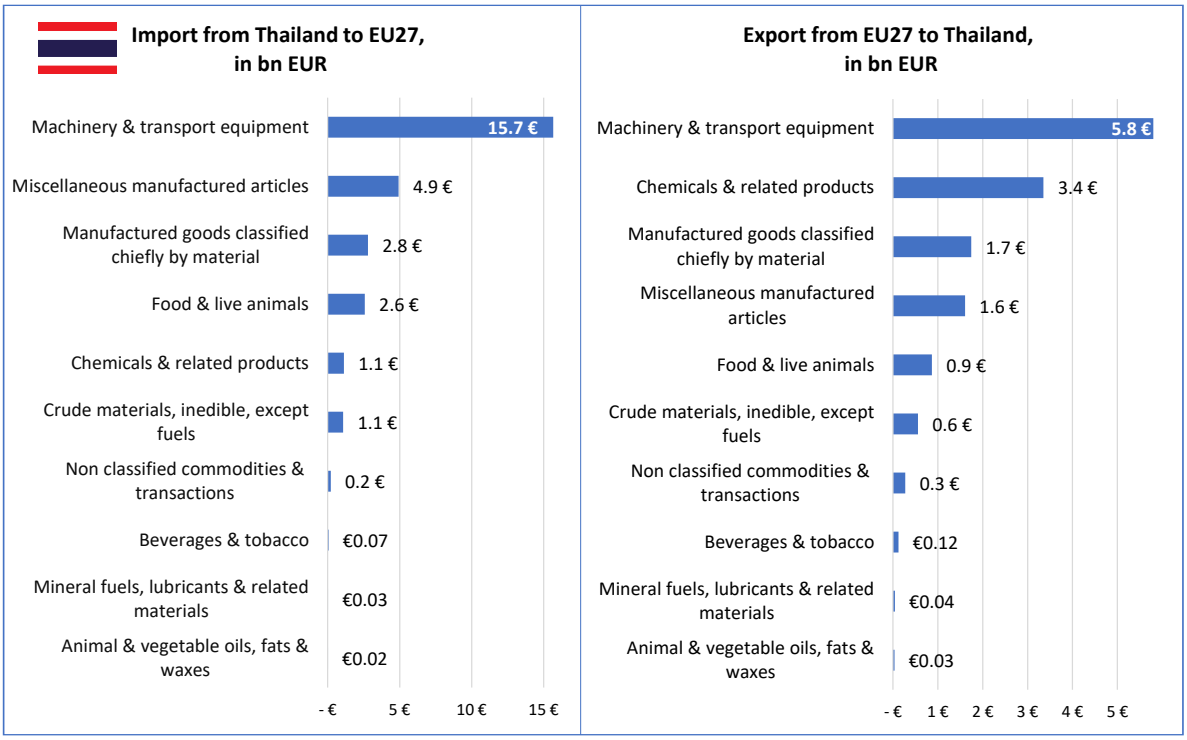


Source: ECCP (2024). Own calculation based on UN Comtrade data. Data exported 22.08.2024.

Figure 19 displays an overview of traded goods between the EU27 and Thailand by imports to the EU27 and exports from the EU27 in 2022. This figure shows the importance of traded **machinery and transport equipment** for the trade between the EU and Thailand**. These goods account** for 50% of all traded goods between the EU and Thailand. Next to this, **manufactured goods** also play a relevant role and account for around EUR 11 billion or 26% of the total trade between the EU and Thailand. **Chemicals** and related products are especially relevant for European exports to Thailand.

[57] See https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/thailand/eu-thailand-agreement/documents_en (last access 05.11.2024).

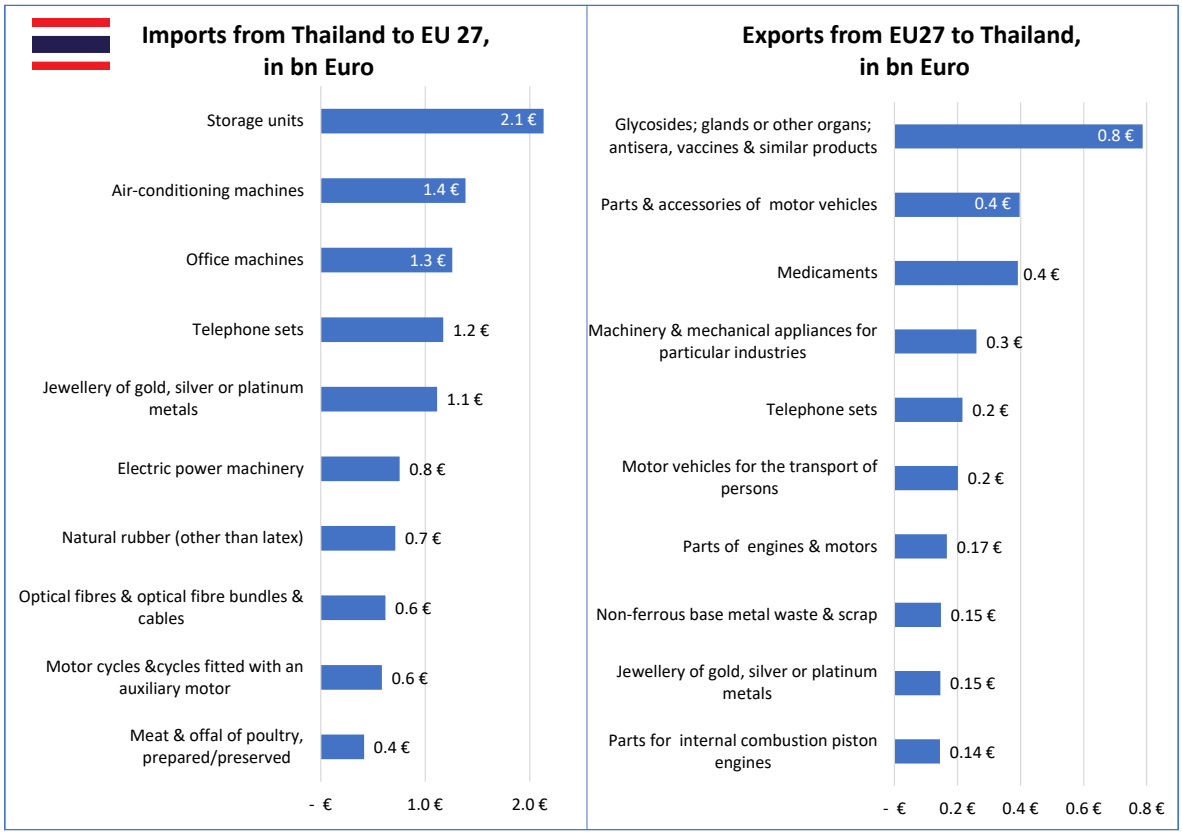
Figure 19: Overview of traded goods between the EU27 & Thailand, by imports to EU27 and exports from the EU27 in 2022, values in billion EUR



Source: ECCP (2024). Own calculation based on UN Comtrade data. Data exported 22.08.2024.

Moving on to the more granular assessment of traded commodities, Figure 20 includes the ten most important commodities traded between the EU27 and Thailand by import to EU27 and export from EU27 in 2022. This assessment points to the relevance of value chains linked to the **Mobility-Transport-Automotive** industrial ecosystem in the trade relations between the EU and Thailand. In this regard, various commodities can be linked to this industrial ecosystem such as storage units, motorcycles, motor vehicles and parts of engines and motors. Moreover, commodities imported from Thailand related to value chains of the **Electronics** industrial ecosystem can be identified (e.g., optical fibre cables). The strength of the electronics industry in Thailand is also outlined in the assessment in Chapter 1.4. On the export side, commodities such as medicaments and glycosides, antisera & vaccines point to the relevance of the **Health** industrial ecosystem for the trade relations between the EU and Thailand.

Figure 20: 10 most important commodities traded between the EU27 & Thailand, by import to EU27 & export from EU27 in 2022, values in billion EUR

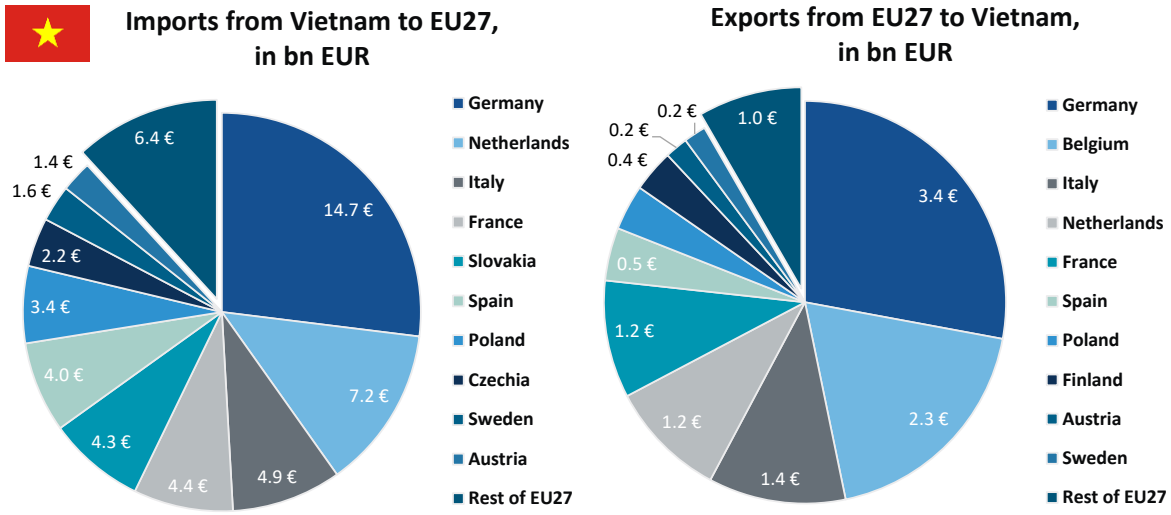


Source: ECCP (2024). Own calculation based on UN Comtrade data. Data exported 22.08.2024.

2.4 EU27 and Vietnam: Analysis of business & value chains

Figure 21 provides an overview of the most important EU27 trading partners for Vietnam by imports to the EU27 and exports from the EU27 in 2022. On the import side, the three most important trading partners are Germany (EUR 14.7 billion), the Netherlands (EUR 7.2 billion) and Italy (EUR 4.9 billion). Looking at the exports from the EU to Vietnam, Germany (EUR 3.4 billion), followed by Belgium (EUR 2.3 billion) and Italy (EUR 1.4 billion) account for more than 50% of all EU exports to Vietnam. In this context, the 2020 EU-Vietnam Free Trade Agreement (EVFTA) finds a relevant place, as it aims to eliminate 99% of all tariffs and reduce regulatory barriers.[58]

Figure 21: 10 most important EU27 trading partners for Vietnam, by imports to EU27 and exports from the EU27 in 2022, values in billion EUR

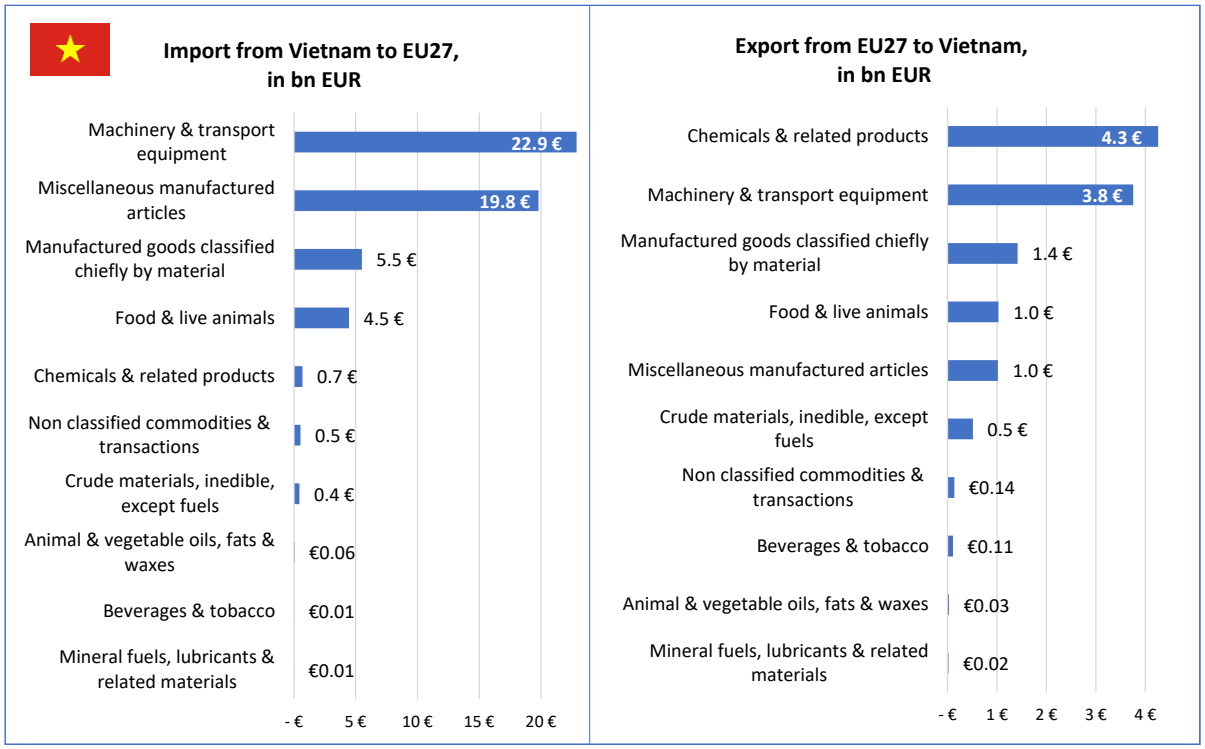


Source: ECCP (2024). Own calculation based on UN Comtrade data. Data exported 22.08.2024.

Figure 22 shows an overview of traded goods between the EU27 and Vietnam by imports to the EU27 and exports from the EU27 in 2022. The category **machinery and transport** equipment stands out as the most important and accounts for 40% of all traded goods. **Manufactured goods** account for almost EUR 28 billion or 42% of the total trade between the EU and Vietnam. Food and live animals account for a total trade volume of EUR 5 billion which points to the relevance of the **Agri-food** industrial ecosystem for the EU-Vietnamese trade relations.

[58] See also https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/vietnam_en (last access 05.11.2024).

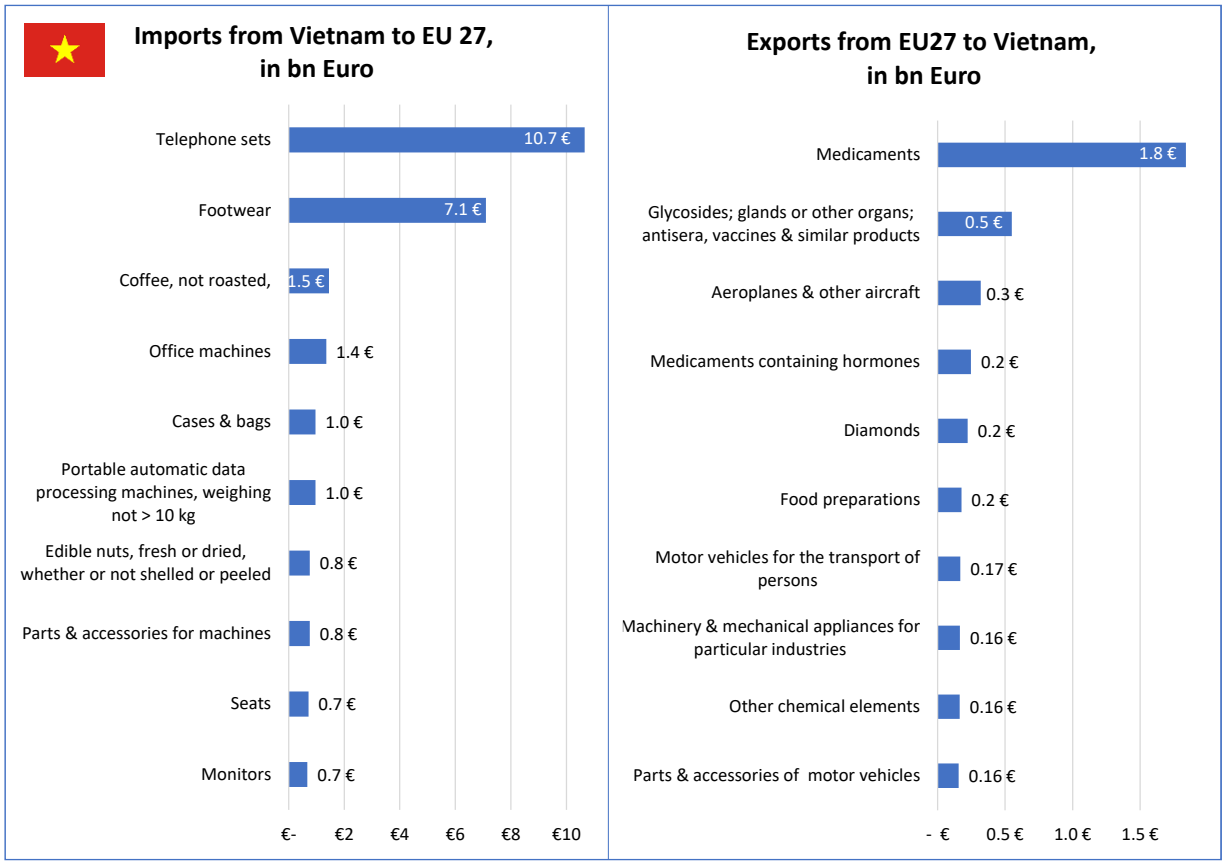
Figure 22: Overview of traded goods between the EU27 & Vietnam, by imports to EU27 and exports from the EU27 in 2022, values in billion EUR



Source: ECCP (2024). Own calculation based on UN Comtrade data. Data exported 22.08.2024.

Moving on to the assessment of traded commodities, Figure 23 displays the ten most important commodities traded between the EU27 and Vietnam by import to and export from EU27 in 2022. In this regard, telephone sets account for 20% of all EU imports from Vietnam. This, together with other commodities such as portable automatic data processing machines, point to the importance of value chains linked to the **Electronics** industrial ecosystem. The imports from Vietnam also show the importance of value chains linked to the **Textile** industrial ecosystem, since the EU imported footwear with a value of EUR 7 billion from Vietnam, followed by cases and bags with a value of EUR 1 billion. This reflects the assessment of the economic profile of Vietnam in Chapter 1.5. Moreover, imported coffee from Vietnam is the third most imported commodity, which further illustrates the relevance of **Agri-food** value chains in the EU-Vietnamese trade relations. On the side of the exported commodities from the EU to Vietnam, the dominance of exported medicaments followed by glycosides, antisera and vaccines point to the importance of value chains of the **Health** industrial ecosystem.

Figure 23: 10 most important commodities traded between the EU27 & Vietnam, by import to EU27 & export from EU27 in 2022, values in billion EUR



Source: ECCP (2024). Own calculation based on UN Comtrade data. Data exported 22.08.2024

03

Cluster Landscapes and Policy of Indonesia, Malaysia, Thailand & Vietnam

EUROPEAN CLUSTER COLLABORATION PLATFORM

Strengthening the European economy through collaboration

3. Cluster Landscape and Policy of Indonesia, Malaysia, Thailand & Vietnam

This section elaborates on the cluster landscapes of Indonesia, Malaysia, Thailand, and Vietnam. The assessment shows a complex and diverse landscape, marked by Special Economic Regions, Key Economic Regions, Super Clusters, and others. It is important to note that the term cluster used in this paper may not align with the definition of a cluster organisation used in the EU context. Instead, it refers more broadly to economic or industrial clusters.[59] The number of clusters, their respective locations, and their economic orientations will be examined depending on the available information. Additionally, relevant cluster policies and recent developments in cluster and industry programmes in these Southeast Asian countries are presented.

3.1 Indonesia: Cluster Landscape and Policy

This chapter provides an overview of the **cluster policy development** in Indonesia. In the 2000s the country was in a transformation process from a centralised to a more decentralised economy. In the 2010s, Indonesia started to promote its Special Economic Zones (SEZ) to attract foreign investments, particularly in manufacturing and export-oriented sectors.[60] During the same time technology parks and innovation clusters started to develop, especially in bigger cities like Jakarta and Bandung. In the 2020s the development strategy of Indonesia aims to achieve sustainable development by focusing on multiple development agendas. Those involve, for instance, strengthening the infrastructure, addressing the green and digital transition, increasing high-value exports, and promoting innovation.

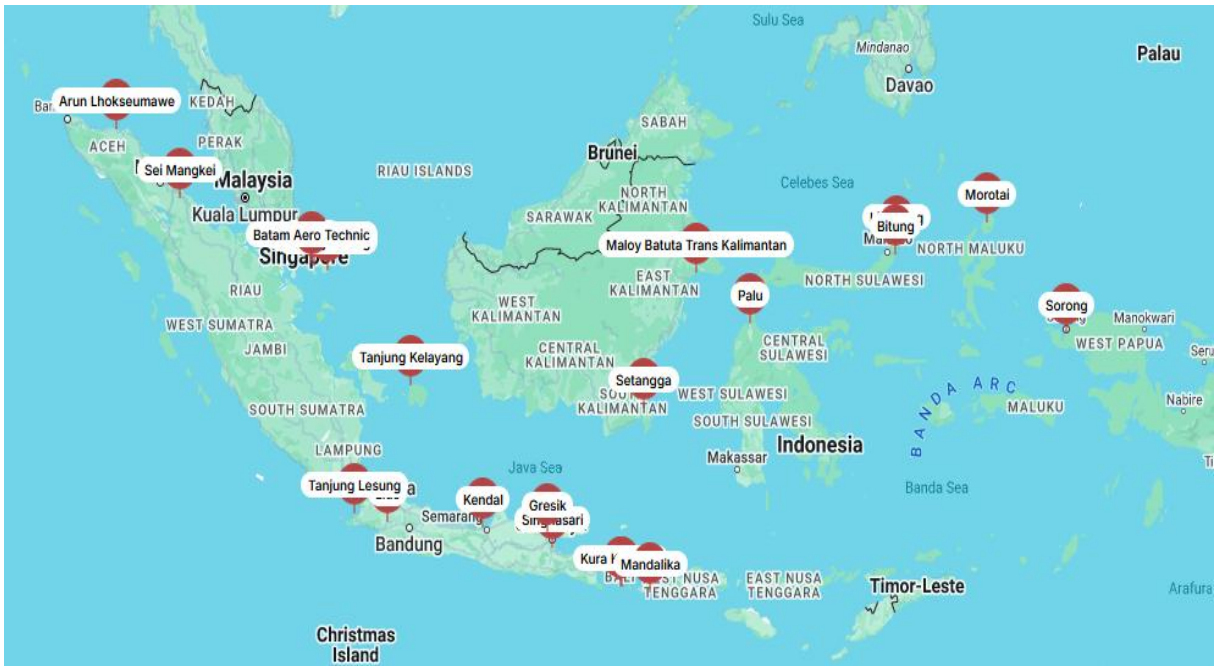
To further investigate the cluster development, the **Special Economic Zones** are reviewed first. In total, 20 special economic zones have been established. More than 57,000 employees worked across these 20 SEZs in 331 companies in 2023.[61] SEZ industries include:

- Manufacturing (10)
- Tourism (6)
- Digital (2)
- Health (1)
- Aerospace (1)

The SEZs aim to increase FDI and exports, accelerate the realisation of Industry 4.0, and the development of a strong service sector. Another stated objective of the programme is the development of underdeveloped regions by processing raw materials and agricultural products to increase their added value. As can be seen from the map (see Figure 24), the SEZs are not concentrated in one region but are spread across the different Indonesian islands.

[59] For more information, see https://www.clustercollaboration.eu/cluster-definitions (last access 13.12.2024).
[60] Government of Indonesia (2024): Indonesia Special Economic Zones. Available under: https://www.kek.go.id/about (last access 08.11.2024).
[61] Government of Indonesia (2023): Special Economic Zones 2023 (last access 08.11.2024).

Figure 24: Overview of the Special Economic Zones in Indonesia



Source: Government of Indonesia (2024). Indonesia SEZ.

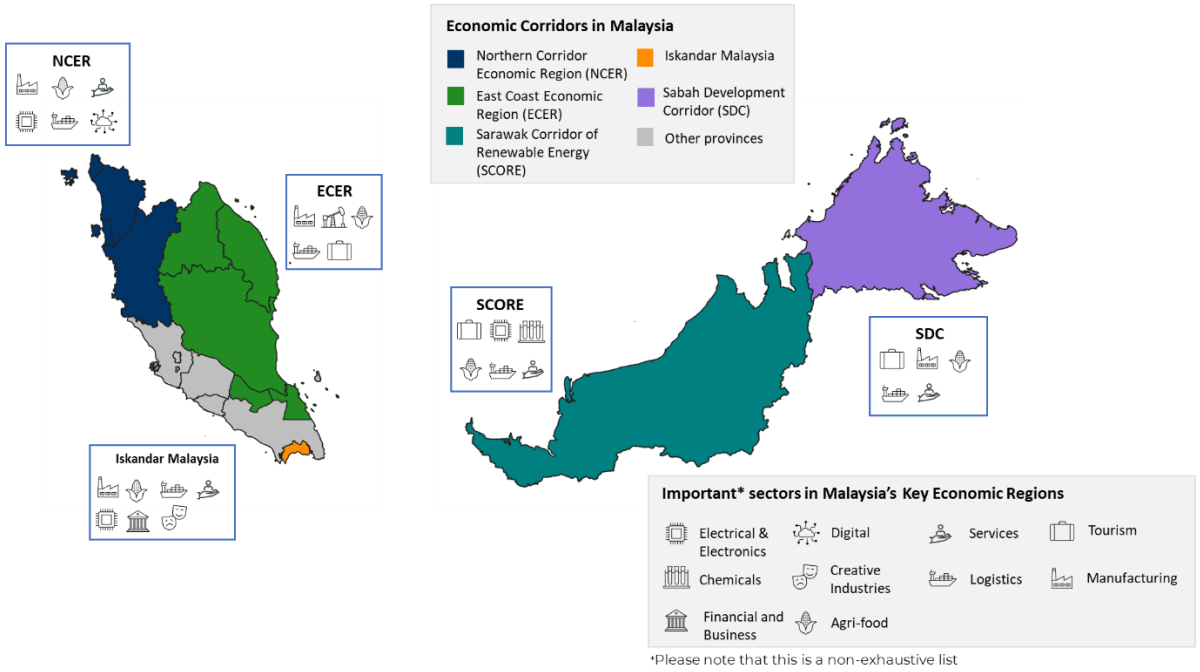
Another instrument to foster regional innovation is **technology parks**. An example of this is the Bandung Techno Park. Established in 2010 as part of Telkom University, its primary mission is to support the growth of technology-driven industries by providing incubation, training, and research facilities. The Bandung Techno Park facilitates the "Innovation Grant Program" that focuses on developing market-ready solutions for industry, government, and community needs through thematic innovation.[62] This programme prioritises products that are close to or ready for real-world application. Each product is developed in response to specific partner needs and tested within the partner's environment to solve identified challenges.

[62] Telkom university (2024): Thematic Innovation (2023-2024) - Bandung Techno Park. Available under: https://btp.telkomuniversity.ac.id/inovasi-tematik/ (last access 08.11.2024).

3.2 Malaysia: Cluster Landscape and Policy

As part of its economic strategy, Malaysia is organised into **five distinct economic corridors**: the Northern Corridor Economic Region (NCER), East Coast Economic Region (ECER), Iskandar Malaysia, Sabah Development Corridor (SDC), and Sarawak Corridor of Renewable Energy (SCORE). These corridors serve as dynamic engines of growth and investment, strategically designed to cultivate advanced supply chains and resilient ecosystems across the nation. Each corridor focuses on innovation, acting as a gateway to high-potential sectors such as manufacturing, renewable energy, logistics, and tourism. Collectively, they position Malaysia as a globally competitive hub by capitalising on the country's strategic location, abundant natural resources, and state-of-the-art infrastructure, thereby attracting diverse industries and investors. A map of the five economic corridors and a selected list of respective sectors is presented in Figure 25.

Figure 25: Key Economic Corridors and Respective Sectoral Focus in Malaysia



Source: ECCP (2024) based on MIDA.

Furthermore, Malaysia has over **500 industrial parks** catering to diverse sectors, including small-scale enterprises, halal industries, biotechnology, eco-parks, and high-tech industries. Many of these industrial parks follow a cluster-based model, dedicated to specific industries to encourage collaboration, innovation, and synergies among companies operating within the same sector.

Malaysia has developed a range of **industrial clusters** that attract global investors and industrial buyers across various sectors, particularly in electronics and electrical (E&E), medical devices, automotive, oil and gas, petrochemicals, palm oil, plastics, and rubber.[63] Notable clusters include the E&E cluster and Machinery &

[63] AHK (2023): Doing Business in Malaysia. Available online: https://www.ahk.de/de/content/download/11140/101764?version=2 (last access 06.11.2024).

Equipment (M&E) cluster in Penang, the automotive cluster in Kedah and Perak, and the petrochemical cluster in the states of Johor, Pahang, and Terengganu. Malaysia's industrial clusters generate spillover effects, allowing neighbouring states to benefit from the strengths of established clusters.[64] Figure 28 in the Annex illustrates these clusters and highlights emerging clusters, as well as the specific spillover effects impacting surrounding regions.

Malaysia's **industrial policy** has developed significantly over the decades, evolving to support diverse, high-value industries. The Free Trade Zone Act of 1971 induced the liberalisation of foreign direct investment, fostering export-oriented industries such as electrical and electronics (E&E) and textiles, and integrating Malaysia into global value chains.[65] In the 1980s and 1990s, the First Industrial Master Plan (IMP) (1986–1995) advanced this approach by promoting the establishment of free-trade zones and industrial parks, strengthening links between foreign and local firms to build a robust manufacturing base.[66] The Second IMP (1996–2005) adopted a **cluster-based industrial strategy**, focusing on sector-specific clusters and encouraging SMEs to participate in global supply chains.[67] The Third IMP (2006–2020) continued to expand cluster-based development, shifting towards high-value-added industries that leveraged Malaysia's natural resources and existing industrial strengths. This phase aimed to foster innovation and enhance Malaysia's competitive edge through targeted support for both resource-based and non-resource-based clusters.[68]

Entering the 2020s, **clusters have become central to Malaysia's economic strategy**, driving growth, job creation, and technological advancement. The **New Industrial Master Plan (NIMP) 2030** builds on these foundations, with an ambitious target to increase gross value added in the manufacturing sector by 61% and diversify exports. The plan focuses on enhancing competitiveness and specialisation within clusters through the development of new clusters and the strengthening of existing ones, particularly in high-potential and emerging areas.[69]

The **NIMP 2030** emphasises collaboration, knowledge exchange, and infrastructure development within clusters to stimulate innovation, attract investment, and support the growth of high-potential industries. Expanding clusters is also seen as essential for generating regional spillover effects, promoting balanced economic growth across Malaysia. An Action Plan under NIMP 2030 is dedicated to identifying untapped opportunities within clusters, encouraging vertical integration, and aligning regional and national growth plans. Supported by the government-financed Industrial Development Fund, these initiatives reinforce Malaysia's position as a globally competitive, innovation-driven economy with interconnected and resilient industrial ecosystems.[70]

[64] Ministry of Investment, Trade and Industry (2023): New Industrial Master Plan 2030. Available online: nimp2030.gov.my/nimp2030/modules_resources/bookshelf/NIMP_20303/index.html (last access 06.11.2024).
[65] See https://www.eria.org/uploads/media/Research-Project-Report/RPR_FY2007_3_Chapter_9.pdf (last access 31.10.2024).
[66] See https://www.mida.gov.my/mida-news/retain-industrial-clusters-to-attract-more-foreign-investments/ (last access 31.10.2024).
[67] ibid.
[68] ibid.
[69] See https://www.midf.com.my/sites/corporate/files/2023-09/NIMP%202030-Attempting%20to%20Bring%20Forward%20Malaysia-MIDF-010923.pdf (last access 31.10.2024)
[70] Ministry of Investment, Trade and Industry (2023): New Industrial Master Plan 2030. Available online: nimp2030.gov.my/nimp2030/modules_resources/bookshelf/NIMP_20303/index.html (last access 06.11.2024).

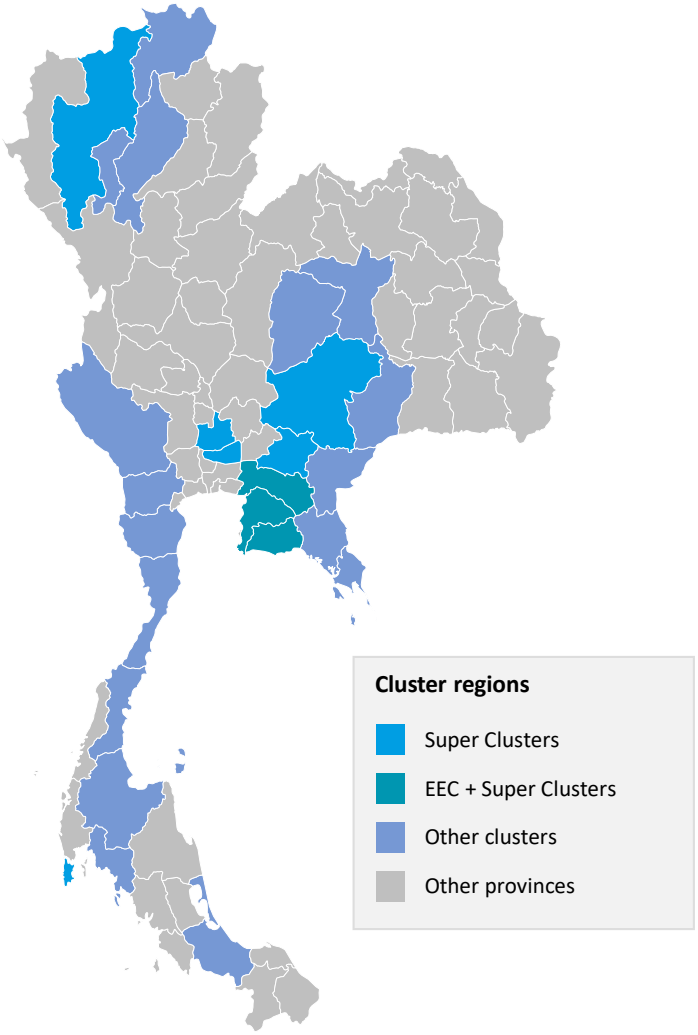
3.3 Thailand: Cluster Landscape and Policy

This section provides a concise overview of the development of both Thailand's cluster landscape and its policies supporting cluster development. Overall, Thailand's cluster landscape reflects the cumulative outcome of various cluster programmes and initiatives. The country's flagship cluster policy designates a range of **Super Clusters**, which are present in the blue and turquoise regions on the map below (see Figure 26) and are active in strategic industries that Thailand's government deems crucial to the country's economic development:

1. Automotive and Parts Cluster
2. Electrical Appliances, Electronics and Telecommunication Equipment Cluster
3. Eco-friendly Petrochemicals and Chemicals
4. Digital-based Cluster
5. Food Innopolis
6. Medical Hub
7. Aerospace Industrial Cluster
8. Automation and Robotics Industrial Cluster

Regions in purple are home to other clusters that are predominantly active in the agri-food and textiles industrial ecosystems.

Figure 26: Thailand's cluster regions



Source: ECCP (2024). Derived from Thailand Board of Investment (2015).

Thailand's early cluster **policies** date back to at least the 2000s, with the goal of diversifying economic growth beyond the Bangkok Metropolitan Region through the establishment of industrial estates (managed by the Industrial Estate Authority of Thailand) and export processing zones in other parts of the country. The more recent major shift in cluster policy occurred in 2015 when the Super Cluster Programme was launched, initially establishing six, then, from 2016, eight clusters in sectors of advanced technology and future industries. This cluster development initiative was **aligned** with the country's overall "Thailand 4.0" industrial strategy aiming to escape the middle-income trap by fostering an innovation-based economy. A follow-up policy in line with these goals was the Eastern Economic Corridor (EEC) Project in 2017, which aims to foster high-tech industry development in the coastal provinces southeast of Bangkok.

Entering the 2020s, Thailand continued its cluster policy approach focusing on its industry 4.0 strategy by reinforcing digital clusters and smart manufacturing as well as a sustainable and circular economy, primarily in the EEC region. Both the Super Clusters and the focus on the EEC region continue to be key components of the Thailand 4.0 strategy with many Super Clusters being focused on the EEC region.

Overall, Thailand's cluster policy follows an SEZ (Special Economic Zones) logic. The **Super Cluster programme**, for instance, aims for industrial upgrading by attracting FDI in advanced technology sectors. For this, it grants corporate income tax exemptions (extendable with reductions), financial support for R&I activities, as well as import duty exemption on machinery, raw materials and R&I components for firms located in Super Cluster zones. The EEC complements these instruments with infrastructure development through Public-Private Partnerships and regulatory fast-tracking. To conclude, **Thailand's** cluster policy chiefly aims to attract FDI in high-tech sectors by granting tax exemptions, providing infrastructure, and facilitating regulatory processes.

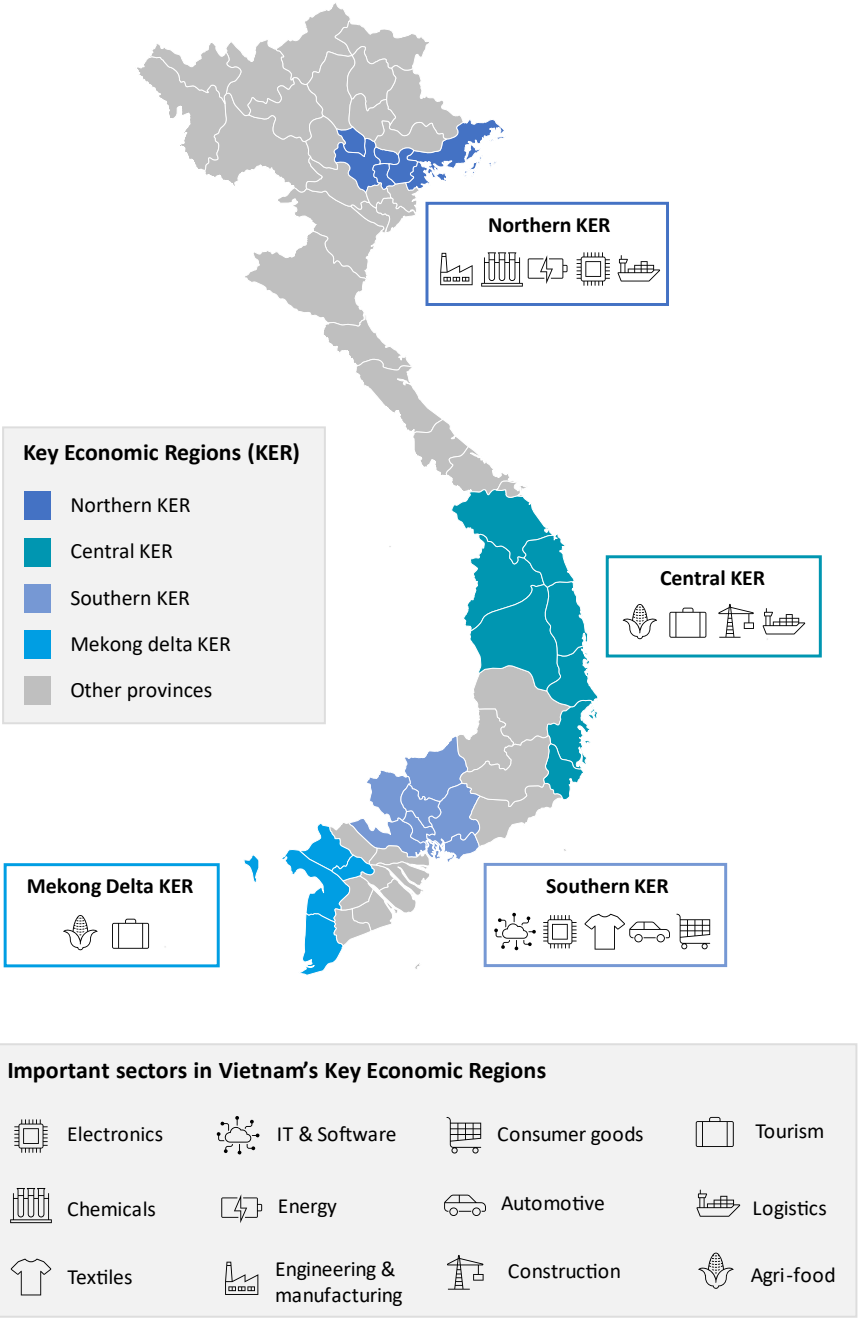
3.4 Vietnam: Cluster Landscape and Policy

This section sheds light on Vietnam's Cluster Landscape, focusing primarily on its structure and specialisation as well as Vietnam's cluster policy evolution and the new 2024 framework the country is currently applying. Vietnam's cluster landscape is structured in four different Key Economic Regions (KERs), which are divided into Economic Zones (EZs), among which 18 of them are Coastal Economic Zones (CEZ). Among these regions, there are 431 Industrial Parks (IP) that can be found, of which 301 are fully operational as of 2024. Most IPs can be found in EZs. While the middle part of the country is in general very rural, and puts its main efforts in agriculture, tourism and logistics, it is the North and the South of the country where the main economic agglomerations can be found. The North's economic engine is based on heavy industry, whereas the South focuses its production on consumer goods (see also Figure 27).

Vietnam's early **cluster policy** during the 2000s focused on attracting FDI in industrial zones (IZs) and export processing zones (EPZs). During the 2010s, the policy approach was extended from simple industrial zones to also include more innovation-driven clusters including high-tech parks. The early 2020s saw an increased focus on the digital and green transition in the form of Digital Industrial Zones (DIZs) and Eco-Industrial Parks (EIPs). The current policy framework is provided by Vietnam's New National Industrial Policy (introduced in 2020) which aims for 40% of GDP in the industrial sector by 2030 and industrial upgrading towards Industry 4.0 technologies. Overall, Vietnam's cluster policy is centred on industrial upgrading in manufacturing through industrial parks, FDI, and technical infrastructure.

In 2024, the Vietnamese government launched its new cluster policy framework. It is based on Decree 32/2024/ND-CP on the Management and **Development of Industrial Clusters** (introduced on 15 March 2024; in force on 1 May 2024). Its objective is to create a unified and simplified framework for cluster development. The policy targets cluster members, cluster management and so-called 'technical infrastructure investors' and supports existing as well as the foundation of new industrial clusters. It envisages a division of labour between local authorities funding investment promotion, surveys, proposal evaluation and support for investment projects while the Ministry of Industry and Trade funds research projects, database maintenance, and investment promotion. The policy's sectoral focus is on manufacturing (incl. machinery, electronics, apparel, food processing), digital technologies and ICT, as well as local industries.

Figure 27: Vietnam's Key Economic Regions



Source: ECCP (2024). Derived from Vietnam Briefing and Lăng (2022).

04

Outlook: Potential for future EU – Southeast Asian cluster collaboration

4. Outlook: Potential for future EU – Southeast Asian cluster collaboration

This input paper has examined the economic profile, relevant trade and business linkages as well as the cluster landscapes of Indonesia, Malaysia, Thailand and Vietnam. This chapter summarises the key findings and explores the potential for further cluster collaboration between the four Southeast Asian countries and the EU27 Member States.

On the **economic profile** of the four Southeast Asian countries, one can highlight that Indonesia, Malaysia, Thailand and Vietnam jointly account for 72% of the total GDP (EUR 3.5 trillion) of the ASEAN Member States, while Indonesia is the largest economy accounting for 36% alone. Across the four Southeast Asian countries, services and industry are the largest GDP contributors. The assessment of the general export structure shows that key exports include electronics, machinery, and minerals, while agriculture remains important in Indonesia and Vietnam, particularly in employment and exports. When it comes to the existing business and value chain linkages between the EU27 and the four countries, the most important trading partner by total trade volume for the EU is Vietnam with a total trade volume of around EUR 67 billion. Malaysia is the most important destination for EU27 exports. The trade structure between the EU and the four countries is highly diverse. While for Indonesia key traded commodities are related to Agri-food, Textiles & raw materials, for Malaysia & Thailand commodities related to Electronics & Health stand out. Regarding the trade linkages between the EU and Vietnam, the traded commodities point towards the importance of value chains linked to the Agri-food, Textile, Electronics and Health industrial ecosystems.

The assessment of the **cluster landscape** in the four Southeast Asian countries shows a complex and diverse landscape. It needs to be highlighted that the definition of a cluster organisation in these countries can differ from the European understanding of this concept as the cluster landscape is characterised by Key Economic Regions, Superclusters, Economic Corridors and others. Overall, Southeast Asian cluster policy is more focused on infrastructure, industrial parks and tax exemptions to attract FDI than on innovation, networking and ecosystem development. Nevertheless, several cluster-like initiatives can be identified in Indonesia, Malaysia, Thailand and Vietnam and since these initiatives are operating across several relevant sectors, these cluster landscapes do provide important starting points for further strengthening cluster collaboration between the EU and Southeast Asia.

Opportunities for further facilitating collaboration between the EU27 and Southeast Asia are found in the **ASEAN-EU Dialogue on Science and Technology** which developed collaborative regional science and technology activities.[71] These include activities in almost ten cooperation areas including health, food, circular economy and green technology. Activities also include events such as the Europe-ASEAN Innovation event.[72] Dedicated funding for collaborative activities is also provided by the Horizon Europe programme which is also open to participants from Southeast Asia.[73] Further contact points arise via the

[71] See https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/europe-world/international-cooperation/regional-dialogues-and-international-organisations/south-east-asia_en#funding-opportunities (last access 06.11.2024).
[72] See https://eu-asean-innovation-event.service-facility.eu/ (last access 06.11.2024).
[73] See https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/europe-world/international-cooperation/regional-dialogues-and-international-organisations/south-east-asia_en#funding-opportunities (last access 06.11.2024).

Global Gateway initiative of the EU that includes Southeast Asia.[74] In this context, the EU and Vietnam have a partnership on sustainable mobility.[75] Moreover, the existing **EU-Vietnam Free Trade Agreement** (EVFTA) provides a good framework for further deepening the relations between the two regions.

As a concluding remark, the different services of the ECCP such as international matchmaking activities and the ECCP Mapping Tool can be highlighted. This ECCP Mapping tool enables international users to find European cooperation partners and access a network of more than **1,200 cluster organisations in the EU27**.[76] These cluster organisations can be identified and directly contacted via the platform. For instance, more than 100 cluster organisations in the industrial ecosystem Agri-food, around 100 cluster organisations in the industrial ecosystem Health and 90 cluster organisations in the industrial ecosystem **Mobility-Transport-Automotive** can be identified there. Furthermore, Vietnam is among the top 20 targeted countries for internationalisation activities of cluster organisations that are registered on the ECCP. As of October 2024, there are no profile registrations on the ECCP from the four Southeast Asian countries indicating further potential for stakeholders from these Southeast Asian countries to register on the ECCP to expand their European networks.

[74] See https://international-partnerships.ec.europa.eu/news-and-events/news/global-gateway-eu-and-asean-strengthen-their-partnership-sustainable-connectivity-2024-02-02_en (last access 06.11.2024).
[75] See https://international-partnerships.ec.europa.eu/news-and-events/news/global-gateway-eu-and-vietnam-strengthen-their-partnership-boost-sustainable-mobility-2024-05-30_en (last access 06.11.2024).
[76] see also ECCP (2024): The European Cluster Panorama Report 2024. Available online: https://www.clustercollaboration.eu/sites/default/files/document-store/Cluster_Panorama2024.pdf (last access 06.11.2024).

Bibliography

AHK (2023): Doing Business in Malaysia. Available online: https://www.ahk.de/de/content/download/11140/101764?version=2 (last access 06.11.2024).

Apaitan et al. (2019): Dissecting Thailand's International Trade: Evidence from 88 Million Export and Import Entries. Available online: https://www.adb.org/sites/default/files/publication/488961/adr-vol36no1-2-dissecting-thailand-trade.pdf (last access 08. 11. 2024)

Ariff, Mohamed (2008). New Perspectives on Industry Clusters in Malaysia, in Analyses of Industrial Agglomeration, Production Networks and FDI Promotion, ERIA Research Project Report 2007-3, Chiba: IDE-JETRO, pp.368-397. Available online: https://www.eria.org/uploads/media/Research-Project-Report/RPR_FY2007_3_Chapter_9.pdf (last access 06.11.2024).

Brancaccio, Lucia (2024): Vietnam Unveils Decree 32/2024/ND-CP on the Management and Development of Industrial Clusters. Vietnam Briefing. 27 March 2024. Available online: https://www.vietnam-briefing.com/news/vietnam-unveils-decree-32-2024-nd-cp-on-the-management-and-development-of-industrial-clusters.html/ (last access 08.11.2024).

ECCP (2024): The European Cluster Panorama Report 2024. Available online: https://www.clustercollaboration.eu/sites/default/files/document-store/Cluster_Panorama2024.pdf (last access 06.11.2024).

fidinam (2023): Investing in Vietnam: Understanding its Industrial Parks and Special Economic Zones. 07 September 2023. Available online: https://www.fidinam.com/en/blog/vietnam-industrial-parks-and-special-economic-zones (last access 08.11.2024).

Interesse, Giulia (2024): Vietnam's Digital Infrastructure Master Plan to 2030: Roadmap to a High-Tech Future. Vietnam Briefing. 04 March 2024. Available online: https://www.vietnam-briefing.com/news/vietnams-digital-infrastructure-master-plan-2030-roadmap-to-a-high-tech-future.html/ (last access 08.11.2024).

Kowalski, Arkadiusz Michał (2020): Towards an Asian Model of Clusters and Cluster Policy: The Super Cluster Strategy. Journal of Competitiveness, 12:4, 74-90. Available online: https://doi.org/10.7441/joc.2020.04.05 (last access 08.11.2024).

Lăng, Trường (2022): Vietnam's Key Economic Zones: A Quick Guide For Foreign Investors. Viettonkin Consulting. Available online: https://www.viettonkinconsulting.com/general/vietnams-key-economic-zones-a-quick-guide-for-foreign-investors/ (last access 06.12.2024).

Malaysian Investment Development Authority (2024): Machinery and Equipment. Available online: https://www.mida.gov.my/industries/manufacturing/machinery-metal/machinery-metal-machinery-equipment/#:~:text=M%26E%20Export%20Performance%20In%20the%20first%20seven%20months,billion%20in%202021%2C%20comprising%204%25%20of%20total%20exports (last access 08. 11. 2024)

Meyer, et al. (2021): How ASEAN Can Move Up the Manufacturing Value Chain. Available online: https://www.bcg.com/publications/2021/asean-manufacturing (last access 06. 11. 2024)

Ministry of Investment, Trade and Industry (2023): New Industrial Master Plan 2030. Available online: nimp2030.gov.my/nimp2030/modules_resources/bookshelf/NIMP_20303/index.html (last access 06.11.2024).

Nguyen Hanh, Vu (2024): Eco-Industrial Parks in Vietnam: Implementation and Key Goals. Vietnam Briefing. 10 July 2024. Available online: https://www.vietnam-briefing.com/news/eco-industrial-parks-vietnam.html/ (last access 08.11.2024).

Thailand Board of Investment (2015): BOI Cluster Policy. Presentation. November 2015. Available online: https://www.boi.go.th/upload/content/BOI_Cluster_Policy_for_Aerospace_AMCHAM_December2015_55326.pdf (last access 08.11.2024).

Thailand Board of Investment (2015): Thailand: Moving Ahead with Cluster Development. Available online: https://www.boi.go.th/upload/content/BOI-brochure-cluster%20area-EN-20151116_53354.pdf (last access 08.11.2024).

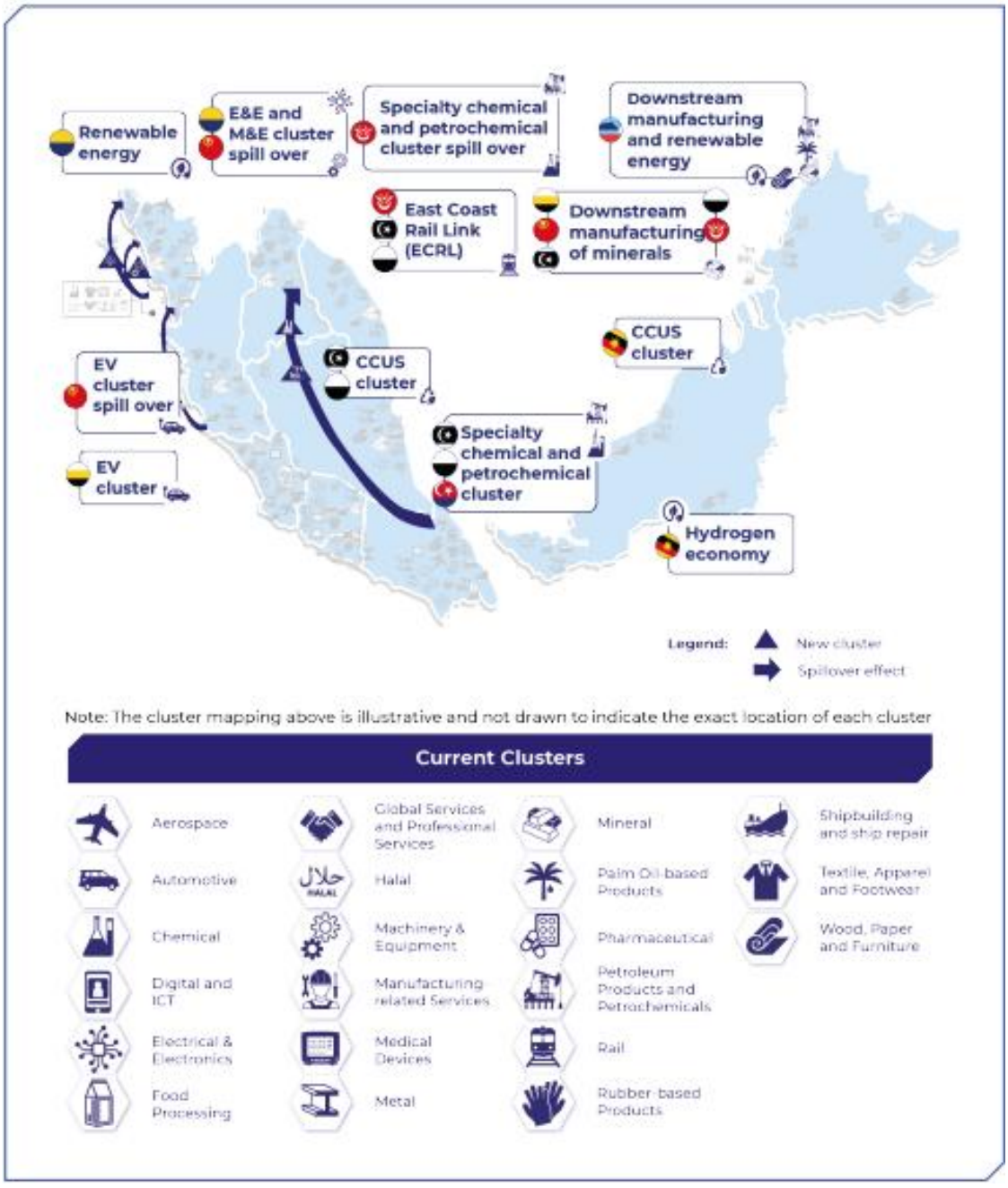
Thailand Department of International Trade Promotion (DITP): Free zone. Available online: https://onestopservice.ditp.go.th/download/file/6.%20Free%20Zone.pdf (last access 08.11.2024).

Thailand Ministry of Industry (2017): Thailand 4.0.: The Next Revolution. Available online: https://www.industry.go.th/web-upload/1xff0d34e409a13ef56eea54c52a291126/m_magazine/12668/373/file_download/b29e16008a87c72b354efebef853a428.pdf (last access 08.11.2024).

Vietnam Briefing: Doing Business in Vietnam – Where to Invest. Available online: https://www.vietnam-briefing.com/doing-business-guide/vietnam/where-to-invest (last access 06.12.2024).

Annex

Figure 28: Economic clusters and spillovers in Malaysia



Source: Ministry of Investment, Trade and Industry (2023).