# TIR

THAILAND INVESTMENT REVIEW

Issue 2/2024

## RIDE TO THE FUTURE:

### Thailand’s Journey with the EV Revolution

THAILAND BOARD OF INVESTMENT

# BOI NET APPLICATION

**January-March 2024**

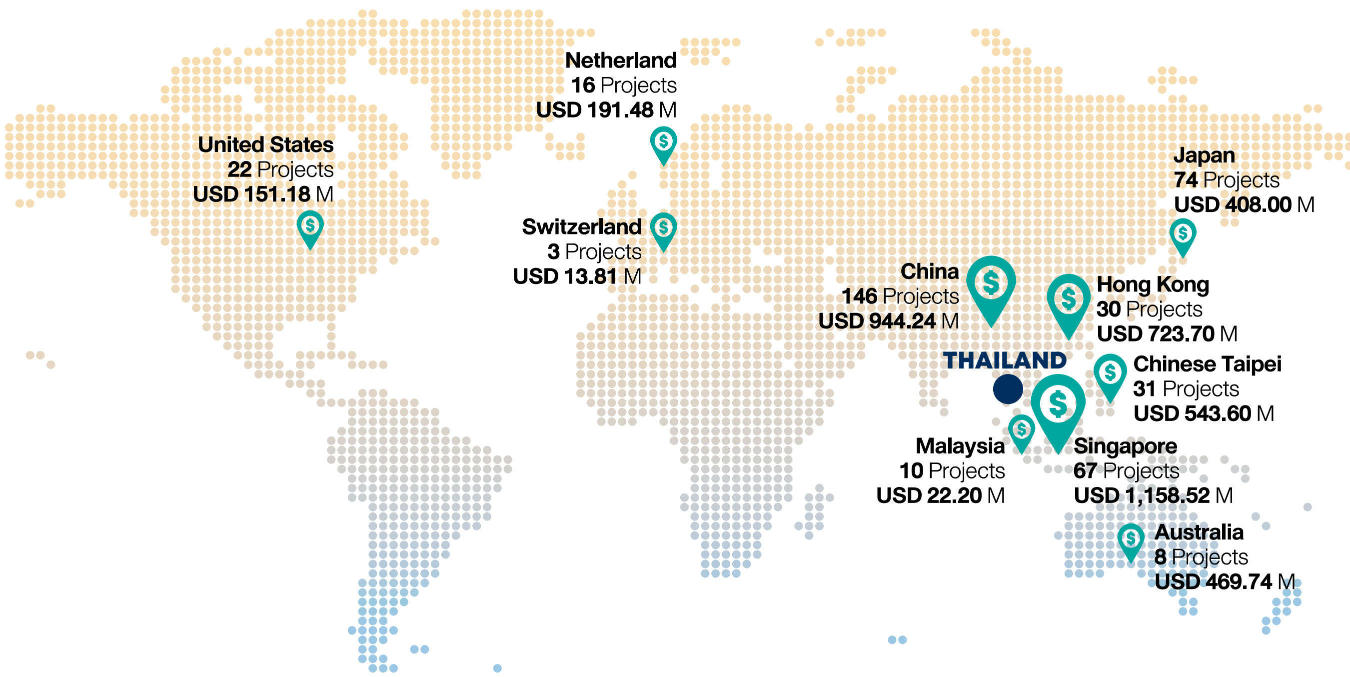
**Total Investment**
**724** Projects
**USD 6.22** Billion

**Total Foreign Investment**
**460** Projects
**USD 4.61** Billion

## FOREIGN INVESTMENT BY TARGET SECTORS

| First S-Curve | New S-Curve |
|---|---|
| **Electronics** 91 Projects \| USD 2,077.27 M | **Digital** 23 Projects \| USD 378.72 M |
| **Automotive** 66 Projects \| USD 545.12 M | **Medical** 7 Project \| USD 28.98 M |
| **Petrochemicals & Chemicals** 46 Projects \| USD 407.94 M | **Automation & Robotics** 4 Projects \| USD 17.62 M |
| **Tourism** 6 Projects \| USD 166.73 M | **Biotechnology** 1 Projects \| USD 15.52 M |
| **Agriculture & Food Processing** 22 Projects \| USD 107.17 M | **Aerospace** 1 Projects \| USD 5.45 M |

## FOREIGN INVESTMENT BY MAJOR ECONOMIES




**Unit: USD (1 USD = 36.7184 THB as of 15 May 2024)**

**Note:** Investment projects with foreign equity participation from more than one economy are reported in the figures for both economies. Statistics on net applications are adjusted whenever applications are returned to applicants due to insufficient information. For more details, please visit **www.boi.go.th**

# CONTENT








# The Next Champion Emerges: Charging Ahead with EVs

**Recognizing its longstanding role as a pivotal hub in the automobile industry, Thailand is actively harnessing its strengths to evolve its supply chain into a more robust and sophisticated ecosystem. Aligned with the stated aims of Thailand Vision 2030, the government is steadfast in its commitment to elevating Thailand as a global industrial hub, with a particular emphasis on Future Mobility. This commitment not only resonates with the objectives outlined in the United Nations Framework Convention on Climate Change and the Paris Agreement, which advocate for low-carbon and climate-resilient development, but also underscores Thailand's determination to sustain a competitive edge within the automotive sector.**

By capitalizing on the factors that have made it such an attractive base for international businesses, such as proactive policies, robust infrastructure, a comprehensive ecosystem, and alignment with internationally recognized standards, Thailand aims to establish itself as the premier destination for future mobility manufacturing within both the ASEAN community and the broader regional context.

## The Next Chapter in a Long History

Over the past six decades, Thailand's automotive supply chain has undergone a remarkable evolution. Initially dependent on imported vehicles, the nation has emerged as a global powerhouse in vehicle manufacturing. In the early phase of Thailand's automotive revolution, the emphasis was on bolstering domestic automobile production to supplant imports. This transition was facilitated by investment incentives and the imposition of import tariffs on foreign vehicles, setting the stage for Thailand to foster domestic strength in the automotive sector.

Following a phase of prioritizing automobile production, the Thai automotive industry came to recognize the heavy reliance of its manufacturing processes on imported parts and components. In response, the government pivoted its focus from merely fostering car production to actively promoting the local manufacturing of automotive parts. This strategic realignment has spurred investment across various auto component sectors, nurturing a resilient supply chain and solidifying Thailand's status as a sustainable automotive production hub. Consequently, investors from across the globe, including prominent players from Japan and Europe, have opted for Thailand as a key production base for their multinational automotive companies.

With adaptable policies and measures tailored to evolving needs and circumstances in each era, Thailand's automotive industry has achieved robust and enduring growth on the road to cementing its position as a global frontrunner. This achievement is underscored by statistics from 2023, which reveal that the 1.8 million vehicles Thailand produced were comprised of 1.2 million commercial vehicles and 580,000 passenger cars[1]. This places Thailand as the tenth largest car producer globally and the foremost in Southeast Asia.

## From the Past to the Next

Since 1997, the Thai government has been actively promoting the production of 1-tonne pickup trucks. Through the implementation of policies aimed at enticing major global manufacturers to establish pickup production facilities in Thailand, authorities designated this vehicle class as the country's premier "product champion." This strategic approach yielded substantial results, notably enhancing the sales of 1-tonne pickups, which, at one point, accounted for over

70% of Thailand's total vehicle production.

After 2009, the government aimed to introduce a fresh national product champion to stimulate further investment in manufacturing. Small, fuel-efficient cars, commonly referred to as eco cars, were subsequently endorsed to become the second product champion, thereby fostering sustained growth in the small automobile market.

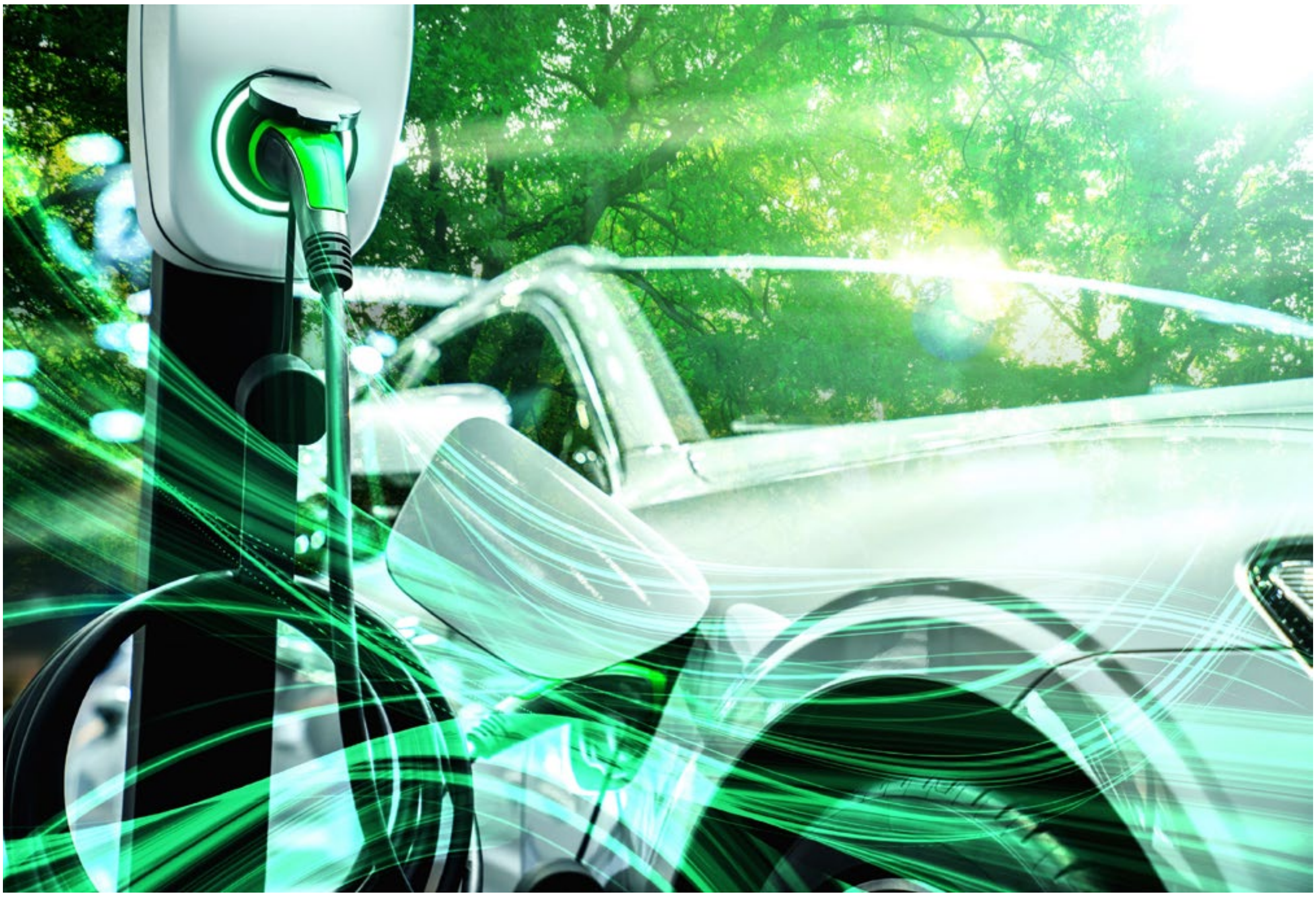
These two product champions have been instrumental in driving the ongoing development of the supply chain and laying a robust foundation for Thailand's automotive industry. Furthermore, the sector has transitioned its primary focus from domestic production to exports, resulting in consistent growth in overseas sales.

However, Thailand is not content with resting on its laurels of past successes as it seeks to maintain its competitiveness. The nation is casting its gaze beyond the current landscape, proactively gearing up to adapt to global shifts. With climate change taking the central stage at every level of discussion, industries, including the automotive sector, are poised for fundamental adjustments. The imminent challenge facing this industry is the realization of emission-free car production. This imperative has sparked a global transition, with Thailand poised to follow suit.

In response to these challenges, a range of policies has been enacted to curb automobile emissions. Notably, Thailand has mandated EURO 5 standards for locally manufactured vehicles to mitigate pollution and greenhouse gas emissions. Nonetheless, these measures alone fall short, particularly in light of Thailand's ambitious targets for carbon neutrality by 2050 and net zero emissions by 2065. Therefore, the country must undertake additional efforts to achieve these goals.

Consequently, electric vehicles (EVs) have emerged as a central focus for Thailand's automotive industry, mirroring trends observed in other nations. As societal pressure mounts to embrace more sustainable practices, the transition to electric vehicles appears inevitable for the automotive sector.

[1] International Organization of Motor Vehicle Manufacturers



## To the Third Product Champion

Thailand is embracing the industrial transition by aiming to establish itself as a premier hub for EV investment. The government has pledged to manufacture zero-emission vehicles with the ambitious aim of having them comprise 30 percent of total car production by 2030—an exceptionally bold target among ASEAN countries. This vision underscores Thailand's strategic pivot toward cultivating a more sustainable automotive industry. The objective is to solidify the EV industry as a cornerstone of the new economy, building upon the successes of the 1-tonne pickups and eco-cars that previously propelled Thailand's automotive industry. By positioning electric vehicles as the third product champion, Thailand aims to draw substantial investment and foster innovation within the automotive sector.

The government's backing for EV production encompasses hybrid electric vehicles (HEVs), plug-in hybrid electric vehicles (PHEVs), and battery electric vehicles (BEVs). To guarantee the success of these initiatives, Thailand is supporting the production of EV components, advocating for EV adoption, and constructing the requisite infrastructure to sustain this newfound emphasis. This multi-faceted approach necessitates close collaboration between public and private sector stakeholders to establish a resilient ecosystem for the expansion of EVs.

Thailand's existing automotive ecosystem has laid the groundwork for this transition. As one of the region's foremost automobile producers, Thailand possesses the capacity and expertise to propel EV production forward. Its strategic positioning in Indochina affords convenient access to markets across Asia, offering a competitive edge for exports and regional distribution. Moreover, Thailand has forged free trade agreements with numerous pivotal markets, bolstering its competitiveness in the EV sector.

Thailand is poised to capitalize on the potential of EVs as a pivotal driver for economic growth. With concerted efforts aimed at amplifying EV production and adoption, the country stands not only prepared but eager to revolutionize its automotive industry. This commitment resonates with Thailand's overarching objectives to adapt and flourish in the ever-evolving global landscape, signaling a noteworthy stride towards sustainable development and technological advancement. ■

# Thailand's EV Industry: Building from a Strong National Base to Become a Regional Powerhouse

**Corresponding with the global emphasis on "going green" as a means of curbing the many issues arising from global warming, the electric vehicle (EV) market has been expanding rapidly. This is especially the case in the emerging economies of Southeast Asia. Blessed with not only an abundance of resources but also the advantage of competitive labor costs, the 6 leading countries of ASEAN are forecast to hit a combined sales total of almost 10 million EV units annually by the end of 2035, generating sales revenue of up to 100 billion US dollars.**

## Thailand's EV Production Driving Growth in the Region

Within ASEAN, each member country has been striving to align the competitive advantages of the region with the principles of sustainable development and an environmentally friendly production environment while also developing and incorporating the latest technological innovations to create an optimal investment hub. Indonesia, for instance, is not only the most populous country in the region but also endowed with rich mineral wealth. The country's nickel, tin and copper resources are essential components in the manufacture of EV batteries. Apart from having its own nickel reserves, Vietnam is also home to VinFast, a private conglomerate well-known for its electric vehicle (EV) production. In addition to manufacturing EVs, VinFast owns a battery factory capable of producing 30 million battery cells annually. These two examples underscore how Southeast Asia is taking full advantage of its resources to establish the region as a major production hub for EVs.

In spite of being surrounded by fierce competition, Thailand has managed to elevate its own position as a leading producer of EVs. In 2023, the sale of EVs from Thailand grew tenfold compared to the previous year, helping to establish the country as the largest producer of EVs in Southeast Asia, capturing more than 75% of the total battery-electric vehicle (BEV) sales in the region during the first quarter of 2023.

These figures mark just the beginning of the story in Thailand's rising EV industry. The Thai government is keen to boost the country's EV production through various measures and incentives, with the aim of positioning Thailand as a leading hub for production and innovation in this globally important market. Beyond these efforts, Thailand also possesses several competitive advantages that further establish it as an attractive destination for EV investment within ASEAN.

## Strong and Resilient Supply Chain

By leveraging its extensive experience in the automotive industry, including the production of auto parts, Thailand is in a strong position to continue developing its EV production and further enhance its well-established automotive industry at the same time. According to the WTO's latest world trade statistical review for 2023, Thailand was ranked in the world's top 10 leading automotive product exporters, with an estimated value of 30 billion US dollars. Within ASEAN, Thailand has historically been the preferred destination for the regional production bases of major automotive companies. Thanks to the Thai government's prioritized industry focus on auto parts dating as far back as 1963 and supported by a number of free-trade agreements granting low tariffs and the country's abundant supply of the resources used in automotive production, Thailand has attracted over 2,200 overseas firms into its automotive industry. Despite the global economic recession brought on by the COVID-19 pandemic and the surge in oil prices, the industries' productivity still managed to record growth of 3.5% in 2022[1].

Amid the concerns about transitioning from internal combustion engine vehicles to EVs, Thailand's capability for industrial transformation has been bolstered by substantial support from the Thai government. Last year, the government allocated 3 billion Thai Baht to subsidize local purchases of electric vehicles. Automakers importing battery electric vehicles (BEVs) to sell in Thailand in 2024-25 under the government's EV 3.5 policy are required to produce BEVs locally for both domestic sale and export within two years. The mandated production ratio is two units produced for each vehicle imported by 2026. If this condition is not met, producers must fulfill the requirement by producing three units per imported vehicle by 2027. This represents an increase from the 1.1 and 1.5:1 vehicle manufactured per imported vehicle ratio of the previous EV 3.0 policy and is intended to promote both the sale and production of EVs within the country, encouraging factories to ramp up their EV production significantly. Additionally, over 100 EV related projects have been executed under promotions initiated by the Board of Investment of Thailand during 2017-2023. The Thai government's dedication to enhancing the EV industry has also convinced more foreign firms and suppliers to consider Thailand as a valuable production base for EVs.

## Global Interest in the Thai EV industry

The strong advantages afforded by Thailand's leading position in the global EV supply chain have attracted a significant number of inbound firms and suppliers. Most notably, Thailand has become the main target for expanding the productivity of EV manufacturing and exports among Chinese investors, who accounted for an 80% share of Thailand's EV market as of 2023. Eight Chinese companies have announced plans to establish EV production facilities in Thailand. The latest company to express interest is Chery, one of the top automobile producers and exporters from China. With its latest plan, Chery has set up both manufacturing and supply chain facilities in Thailand to serve as its main base for the production and export of right-hand-drive electric vehicles from the heart of the Indochina peninsula to the ASEAN region, Australia, and the Middle East. Apart from circumventing the geopolitical conflicts in the region, China's investment in the Thai EV market aligns with Thailand's low-carbon emission campaigns and takes advantage of the opportunities for tariff-free exports to the emerging EV market in Southeast Asia. Facing a saturated market and over-supplied production in their own country, Chinese investors have been attracted by Thailand's impressive automotive fundamentals. Thanks to government support, Thailand is also able to offer an abundance of labor that is skilled but competitively priced compared to Chinese labor, thereby helping to keep production costs low. The stability of Thailand's electric capacity and the country's large supply chain network also serve as strong incentives for Chinese investors.

Apart from the substantial foreign investment it receives in EVs, Thailand has also attracted

[1] Krungsri Research



a number of leading global corporations looking to invest in the establishment of battery manufacturing plants. SVOLT Energy, a subsidiary of Great Wall Motor, has allocated 30 million USD to set up a factory for battery module production that will see its capability expand to almost 120,000 battery packs annually. In addition to supplying SVOLT Energy's export markets throughout the Southeast Asian region, this increased capacity will also support Thailand's exponentially growing EV supply chain. Having been operating in Thailand for almost 60 years, the famous German automobile manufacturer, BMW, has also been granted incentives valued at one hundred million Thai Baht to invest in the production of plugged-in hybrids and high-voltage batteries[2]. Moreover, SAIC Motor-CP Co., Ltd. and MG Sales (Thailand) Co., Ltd. have entered the EV industry in Thailand by jointly investing in the New Energy Industrial Park to produce EV batteries. Located in the eastern region of Thailand, this new facility will be the first factory in the ASEAN region with an annual capacity of 50,000 EV batteries per year. These examples show how foreign investment in Thailand's EV battery industry has grown in tandem with the country's upward production of EVs, thereby empowering it to retain its international status as one of the top-tier vehicle producers in the world.

In addition, several other initiatives and measures have been implemented in both the upstream and downstream areas of the supply chain to support the continued growth of Thailand's EV production network. Regarding upstream development, China has opened its 4th China Automotive Technology and Research Center (CATARC) in Thailand, with the aims of coordinating EV production efforts, facilitating investment, supporting research and development, and ultimately boosting the country's capacity to produce high volumes of quality EVs and to export them throughout the region. In terms of downstream developments, the rising sale of EVs has created an increased consumer demand for EV charging stations, which has now been fulfilled by both public and private investments with almost 10,000 EV charging stations available across the country by the end of 2023[3].

Taking full advantage of its well-established supply chain, skilled and affordable labor, and abundant resources, Thailand is increasingly aligning its undoubted competitive advantages and experience in the production of automobiles and auto parts with the new demands of the changing global landscape to establish itself as a regional hub for the EV market. Already trusted by world-class suppliers and international investors, Thailand's burgeoning EV industry is made even more attractive to investors through the supplementary support it receives from the Thai government. The availability of investment incentives and the development of infrastructure, both upstream through R&D facilities and downstream through EV charging stations, have contributed to Thailand's position as a regional hub of EV production. ■

[2] BMW Newsletter
[3] Electric Vehicle Association of Thailand

# Policy in the Driver's Seat: Gearing up Thailand to Become the Next EV Hub

**The advancement of Thailand's electric vehicle (EV) industry is not just an industry-level initiative, but a key national flagship policy that aims to make Thailand a global hub for the production of EVs and their components. After the Thai Cabinet approved the guidelines for implementing the promotion of EVs under the 30@30 Policy in 2022, Thailand embarked on a journey that it hopes will take it to the forefront of the EV sector. The country's objective is not only to become a major EV producer, but also to develop related industries, establish essential infrastructure, incentivize EV adoption, and foster a sustainable growth ecosystem.**

In recent years, various measures have been introduced to translate this policy into concrete action. The government is placing equal emphasis on both demand-side and supply-side promotions. On the demand side, efforts have been made to stimulate consumer motivation to switch to EVs, including raising awareness of climate change and the importance of transitioning to a low-carbon society. Following the end of phase 1 of the EV support measures, or EV3.0, in 2023, the government has now introduced the phase 2 support measures, or EV3.5, which will be in effect from 2024 to 2027. These current measures encompass support for electric cars, electric pickup trucks, and electric motorcycles through various benefits, including:

1) providing subsidies of up to 100,000 baht per car and pickup truck, and 10,000 baht per motorcycle
2) reducing import duties by up to 40% for the import of completely built-up (CBU) EVs during 2024-2025 with a price not exceeding 2 million baht, and
3) lowering excise taxes from 8% to 2%.

To further stimulate domestic investment, the policy also requires that manufacturers who take advantage of its support measures produce enough EVs to offset imports at a ratio of 1:2 by 2026. In other words, for every 1 imported vehicle, 2 must be produced locally. This ratio will then increase to 1:3

by 2027. It is the intention that these measures will not only help reduce costs as a way of incentivizing consumers to switch to EVs, but also serve as a catalyst for manufacturers to transition from importing EVs to full-fledged production within the next few years. This aligns with one of the top goals of the 30@30 Policy, which is to increase the production of EVs to at least 30% of total vehicle production by 2030.

In addition to supporting the demand for EVs among general users, the government is promoting increased adoption of EVs in both the public and private sectors as well. In February 2024, the National Electric Vehicle Policy Committee approved measures to support the use of large commercial EVs, including electric buses (E-Buses) and electric trucks (E-Trucks), to assist businesses in reducing their carbon emissions. The aforementioned measures will allow companies or juristic partnerships to class the costs of purchasing E-Buses and E-Trucks for their own use as deductible expenses when calculating their corporate income tax. Specifically, they can deduct 200% of the cost of locally manufactured/ assembled vehicles and 150% of the cost of imported, finished vehicles. These measures will be in effect until the end of 2025.

In terms of supply-side support, the Board of Investment (BOI) has placed a strong emphasis on promoting the EV industry as a whole with support measures for all types of EV manufacturers, including 4-wheeler EVs, 3-wheeler EVs, 2-wheeler EVs, electric boats, E-Buses & Trucks, E-Bicycles, EV parts and components, charging stations, and battery swapping stations. Additionally, the BOI is supporting the development of BEV platforms, software, and digital platforms with the goal of establishing Thailand as Asia's EV manufacturing hub. Investors who are promoted by the BOI will receive both tax and non-tax benefits, including corporate income tax exemption from anywhere from 3 to 13 years, depending on the type of promoted activities and the specifics or level of the production process.

Meanwhile, automotive manufacturers, both traditional and HEV/PHEV, will receive a 3-year exemption from corporate income tax if they implement automation or robotics systems to improve their vehicle production efficiency. This applies to both existing businesses and new investment projects. Companies are required to propose a development plan for automotive technologies that utilize clean energy, energy-saving measures, safety features, intelligent driving, and other advanced technologies. The exemption covers 50% of the investment in automation and robotics systems (excluding land and working capital costs). Import duty exemption for machinery is also available if the investment promotion application is submitted by the end of 2024.

At the National Electric Vehicle Policy Committee meeting on February 21, 2024, additional investment promotion measures were approved for the production of battery cells for EVs and Energy Storage Systems

(ESS). The goal of these measures is to attract investment in the production of battery cells, which are the upstream component of the EV industry and require advanced manufacturing technology. Investors who submit investment proposals for such projects to the BOI by the end of 2027 will receive various benefits provided they meet the following specified conditions:

1) being a leading and well-recognized battery manufacturer supplying batteries to EV manufacturers,
2) having a clear plan to produce battery cells for use in both EVs and, if possible, ESS batteries,
3) producing batteries with a high energy density of at least 150 Wh/kg., and
4) producing batteries with a life cycle of at least 1,000 cycles, measured from 70% of the nominal capacity at a depth of discharge of at least 80% and a test temperature of 20-25 degrees Celsius.

The benefits that investors will receive include:

1) financial support from the National Competitiveness Enhancement for Targeted Industries Fund is available for investment expenses, research and development for innovation, and the development of specialized personnel,
2) corporate income tax exemption for up to 15 years, which is higher than the maximum exemption of 13 years under the Investment Promotion Act,
3) exemption from income tax on dividends received from promoted businesses,
4) other incentives from the Investment Promotion Act.

All of these support measures represent the beginning of Thailand's efforts to promote the development of a comprehensive EV industry across the entire supply chain. In addition to promoting domestic production and use, Thailand remains committed to supporting the development of its EV infrastructure and creating an ecosystem that facilitates a comprehensive transition to EV use in line with the country's ambition to become a leading regional hub for EVs. ■

# EVAT's Mission to Catalyze Thailand's EV Ecosystem

**The mission to drive Thailand to become a regional hub for electric vehicles (EV) is no easy task, especially when competing with neighboring countries that share the same goal. The Thai government must not only promote investment across the entire supply chain but also develop the relevant infrastructure and workforce, while also raising awareness among the people. Achieving these objectives requires the participation of all stakeholders. As one of the key mechanisms of EV promotion in Thailand, the Electric Vehicle Association of Thailand (EVAT) is responsible for facilitating collaboration among companies, but it is also charged with the important mission of creating an ecosystem suitable for the development of Thailand's EV industry. Today, we are honored to have Mr. Suroj Sangsnit, EVAT's Vice President for Industry and Business Development, to share Thailand's EV goals and what EVAT is doing to drive the country towards achieving them.**

“Thailand shows a promising growth trend, which is an opportunity that investors should not overlook. The market, which investors may have previously considered not yet large enough, has demonstrated significant growth over the past few years.”

**Mr. Suroj Sangsnit**
Vice President for Industry and Business Development of Electric Vehicle Association of Thailand

**Q: What progress has been made so far following the implementation of the 30@30 Policy?**

**A:** Currently as of April 2024, there are approximately 160,000 electric vehicles on the road, both private and public. These figures show us that the aim of achieving the goals according to the 30@30 Policy is therefore feasible. However, there is still a need for continuous action and addressing various challenges from vehicle manufacturers, parts manufacturers, educational institutions, and the government. Especially in the context of rapidly changing technologies, stakeholders from all sectors must strive to accelerate development and overcome these challenges. EVAT also plays a crucial role in driving the industry alongside other stakeholders, both in promoting and recommending the use of electric vehicles, communicating knowledge to the wider public, and jointly pushing policies through a variety of channels, such as in our roles as a committee member in the National Electric Vehicle

Policy Committee and on various subcommittees throughout the past period.

**Q: In the face of such strong competition to attract investment in the EV industry, what are Thailand's advantages compared to its neighboring countries?**

**A:** Due to geopolitical factors and international policies, such as the trade tariffs between the United States and China, the ASEAN region has become a target market for investors. If we look at our neighboring countries who are competing for investment in the EV industry, Thailand has the potential to be a manufacturing base on par with those countries. Moreover, we can clearly prove Thailand's potential from the current investments. At least 7 major Chinese EV companies are in the process of establishing themselves in the country, which is a much higher number compared to our neighboring competitors.

In addition to having a strong industrial foundation, Thailand is also experiencing a growing demand for EVs, particularly as replacements for gasoline vehicles with high energy costs. In contrast, in oil-producing countries like Malaysia or Indonesia, the public may not see the importance of switching to EVs as much. This presents an opportunity for Thailand to attract foreign investors. Furthermore, Thailand does not have its own EV brand, meaning there are no protective policies for the industry, which allows foreign investors to expand the market for their own car brands.

**Q: Apart from the EV3.0 or EV3.5 measures, what other policies does Thailand currently have to support the electric vehicle industry?**

**A:** The success of the EV3.0 Policy has enabled Thailand to attract many new investors, as evidenced by the fact that over 80% of EV usage in ASEAN comes from Thailand. The EV3.5 Policy will further enhance Thailand's competitiveness. However, these policies primarily support usage. Thailand also has many other promotional measures that the general public may not be aware of, including those which promote production, support the establishment of charging station networks, and encourage various investment projects.

EVAT has consistently played a role in pushing and driving these policies forward. At the same time, EVAT is also striving to get the government to support technology transfer, both by attracting private companies to enter into joint ventures with Thai companies and by facilitating the entry of foreign experts with essential skills, such as battery specialists, to work in the country. This will lead to technology transfer at both the company and personnel levels.

**Q: What are the key challenges that the electric vehicle industry is currently facing?**

**A:** Currently, Thailand has around 10,000 charging points nationwide. However, there are only about 5,000 fast charging (DC) points. Given the expected increase in the number of EVs, this may not be sufficient. The existing charging points are concentrated in major cities, making inter-provincial travel difficult. Additionally, public EVs rely heavily on this infrastructure, necessitating the expansion of the charging station network to be more comprehensive and accessible.

Awareness of electric vehicles is another crucial issue that needs to be promoted. EVAT has continuously provided advice and education to stakeholders, including users who lack understanding of EVs, foundations or rescue units that might need to deal with EVs when assisting accident victims, and independent repair shops that may not yet fully understand how to repair electric vehicles. EVAT has arranged for experts to educate stakeholders throughout the entire supply chain mentioned above.

**Q: How is EVAT collaborating with other organizations, both domestic and international, to support its mission in the electric vehicle sector?**

**A:** EVAT has continuously cooperated with various agencies, both domestic and international. Domestically, there has been an MoU signed with the Office of Vocational Education Commission to promote a curriculum for students to learn about electric vehicles. Additionally, collaborations have been established with the National Science and Technology Development Agency (NSDTA) and the Thailand Energy Storage Technology Association (TESTA) to develop guidelines for managing end-of-life batteries for reuse in new manufacturing processes, supporting the development of a circular economy in the country. We are also cooperating with the Electricity Generating Authority of Thailand (EGAT) to develop electric motors from conventional motors.

In terms of international cooperation, EVAT has signed an MoU with Chengdu University to provide knowledge to mechanics in Thailand. Additionally, we have a collaboration with Chonburi Technical College to engage experts to educate their students. Moreover, EVAT also receives funding from Germany through GIZ to implement EV projects.

At the iEVTech event organized by EVAT, experts from both Europe and Asia were invited to exchange knowledge and provide advice to companies. This global network has transformed EVAT into a key contact point for EV matters in the country, providing opportunities to learn various technologies from international experts for future industrial development.

**Q: Are there any recommendations or issues that EVAT would like to convey to investors interested in Thailand's electric vehicle industry?**

**A:** Thailand has its own unique strengths in the EV industry and shows a promising growth trend, which is an opportunity that investors should not overlook. The market, which investors may have previously considered not yet large enough, has demonstrated significant growth over the past few years.

Our government policies are flexible and adaptable to changing circumstances, and we are always ready to accommodate investors. The country's potential is evident through the number of investors interested in and already investing in Thailand. Therefore, we are confident that Thailand is one of the most attractive countries for investors in the EV industry.

These investments are not only beneficial for businesses to expand their markets, but also benefit Thailand in terms of driving the economy, creating employment opportunities, and leading to technology transfer in the future. ■

# BMW Group Manufacturing Thailand: Steering Its Third Decade to a Sustainable Future


> We hire graduates of the program to work with us, thus creating the "right people" for our organization. This is crucial for us because we need the right people for this complex world.
>
> **Mr. Erik Ruge**
> Managing Director of
> BMW Manufacturing (Thailand) Co., Ltd.

**BMW's journey to becoming the number one in the Thai premium car market dates back to 2000, when BMW Manufacturing (Thailand) started its assembly plant in Rayong Province. This decision to establish a foothold in the region was based on the company's confidence in the significant growth potential of the Asian market, particularly Thailand. Today, we had the opportunity to interview Mr. Erik Ruge, Managing Director of BMW Manufacturing (Thailand) Co., Ltd., who shared his management philosophy on redefining the term "business success" with a new perspective, emphasizing the creation of a "sustainable future" in a rapidly changing industry.**

**Q: How have BMW's business operations in Thailand evolved?**

**A:** BMW Group Thailand first began operations in 1998 with the establishment of BMW (Thailand), the national sales company. In 2000, BMW Manufacturing (Thailand) set up an assembly plant in Rayong Province, reflecting our confidence in the potential of the Asian and Thai markets, along with the country's unique location, strong manufacturing base, and highly skilled automotive workforce. BMW Manufacturing (Thailand) has become a strong hub for our automotive assembly in the ASEAN region.

Over our 26-year journey in Thailand, we have developed a fully integrated business operation, divided into four main areas: BMW (Thailand), responsible for wholesales, marketing, and customer support of BMW Group products; BMW Leasing (Thailand), providing financial services to customers; BMW Manufacturing (Thailand), handling the local assembly production of BMW and BMW Motorrad; and BMW Parts Manufacturing (Thailand), producing of BMW Motorrad parts and components. As for the plant in Rayong, we have continuously invested in expanding the vehicle assembly processes to meet growing customer demand.

**Q: Why did BMW choose Thailand as an investment destination and why has it maintained its focus here until now?**

**A:** Tracing our journey back to the beginning when we chose Rayong as our manufacturing base, I believe the success this plant has enjoyed vindicates our decision. Today, this plant manufactures 18 BMW models for domestic sale and export within the region. This includes nine car models—the 2 Series, 3 Series, 5 Series, 7 Series, BMW X1, X3, X5, X6, and X7—and nine motorcycle models—F 900 R, F 900 XR, F 750 GS, F 850 GS, F 850 GS Adventure, R 1300 GS, R 1250 GS Adventure, S 1000 R, and S 1000 RR. We export cars to China and motorcycles to China, Malaysia, Vietnam, the Philippines, and India. In addition, we have also expanded our market into the electrified vehicle segment since 2017, now producing six Plug-in Hybrid Electric Vehicle (PHEV) models, namely X1 xDrive30e, 330e, 530e, X3 xDrive30e, 750e xDrive, and M760e xDrive, being produced at this plant.

The strategic reasons for choosing Rayong as the location include the availability of a skilled workforce and the readiness of the supply chain. Highly skilled labor is the key to expanding a large and complex plant in terms of manufacturing. We can say that 99% of all staff who drive this plant are local people. Everyone plays a crucial role in developing a stable and efficient manufacturing system, allowing this plant to produce vehicles of the highest quality. As we say at BMW, “there is no compromise for quality.”

The industrial estates in Chonburi and Rayong are hubs for automotive parts suppliers. It is a home of BMW Parts Manufacturing (Thailand), which supplies motorcycle parts to the motorcycle assembly. It is also a home to the BMW’s International Purchasing Office, which sources BMW-standard components from local suppliers in Thailand and the ASEAN region for delivery to over 30 BMW production network sites in 15 countries worldwide. The value of purchases in Thailand already exceeded 4 billion baht.

**Q: How is BMW collaborating with local businesses in Thailand?**

**A:** BMW Group Thailand places great importance on selecting local partners to become suppliers for our global production network. Here, we have a strong partner in the Board of Investment (BOI), which helps drive the connection between multinational companies and local entrepreneurs and suppliers. Earlier this year, BMW Group Thailand, in collaboration with the BOI and other partners, organized the BMW Motorrad Supplier Day to select automotive parts manufacturers in Thailand. These manufacturers will produce parts for new BMW Motorrad motorcycles for assembly in Thailand. The results of this event were very satisfactory. Following the evaluation and selection by the International Purchasing Office and the unit from the headquarters in Berlin, several companies have shown potential in manufacturing to meet BMW's high standards and are now being considered as parts suppliers for BMW Motorrad.

**Q: What is the company's view of Thailand's EV market?**

**A:** When it comes to electric vehicles, or EVs, it's a highly dynamic business. The situation today is completely different compared to when I arrived in Thailand three years ago. At that time, I hardly saw any EVs on the roads. No one dared to buy electric cars, and there weren't many options available in the market. However, during 2020-2022, we began to see a growth in the market. In 2022, battery electric vehicles (BEVs) accounted for 2% of all registered vehicles, and this increased to 13% in 2023. This phenomenon reflects that the growth of the EV market in Thailand is a result of the government's clear driving policy. The 30@30 policy, which serves as a guideline for promoting electric vehicles (EVs) in Thailand, aims to have zero-emission vehicles (ZEVs) account for at least 30% of all vehicles produced by 2030. It may sound ambitious for Thailand, but the recent growth of the EV market proves the policy's success. Also, it is considered a significant driving force for the EV industry because what is important for businesses is having clear guidelines from the government, which allows entrepreneurs to develop their business strategies proactively and tailor investment plans suitable for the Thai market.

This has been a factor prompting BMW to make moves in the Thai market. We foresaw what was happening in advance due to the market's dynamic nature. However, opportunities come with challenges as we race against time and constantly evolving technology. Keeping up with the EV world is not just a challenge for BMW but for all players in the supply chain. This year, BMW decided to make a significant investment in the construction of the high-voltage battery facility to support the production of BEV in 2025. This facility will be BMW's first high-voltage battery assembly plant in Southeast Asia.


**Q: What are BMW's next steps for the company's automobile and EV development?**

**A:** We prioritize people development as much as we prioritize business profits because we see it as a worthwhile long-term investment. Car models and electrification technologies are becoming increasingly complex. We develop our people to cope effectively with working in a changing world. This principle is the foundation of the Dual Excellence Programme in Education for vocational students, developed in collaboration with Chitralada Technology Institute and Thai-Austrian Technical College, to offer diploma programs in Mechatronics, Logistics Management, and Data Analysis. In addition to providing knowledge to students, we also offer them a "future home." We hire graduates of the program to work with us, thus creating the "right people" for our organization. This is crucial for us because we need the right people for this complex world.

We believe that investing in the education and development of local talents will contribute to the industry's growth and help shape the future of mobility in Thailand. They might not work with us forever, but it's something that we can give back to society. ■

# THAI ECONOMY AT A GLANCE

## Key Economic Figures

**GDP** (2023)
**USD 513.5** Billion

**GDP per Capita** (2023)
**USD 7,331.5** / Year

### GDP Growth

2022 2.6%

2023 1.9%

Source: NESDC
(Data as of May 2024)

### Unemployment
Dec 2023

0.8%

### Inflation
(2023)

1.2%

Source: National Statistical Office, MDES

### Investment Growth

2022 2.3%

2023 1.2%

### Export Value of Goods Growth

2022 5.4%

2023 -1.7%

Source: NESDC
(Data as of May 2024)

## Market Profile
(2023)

Population
66.04
Million

Minimum Wage
THB 330-370

US$ Approximate
USD 9.17-10.29

Source: Ministry of Labour

## Export Figures

**Export value (USD million)**

**Jan-Dec 2022:** 276,782.17
**Jan-Dec 2023:** 272,666.33
**Jan-Mar 2024:** 69,605.31

## Top 10 Export Markets (Jan-Mar 2024)

| Rank | Value (USD Million) | Share |
|---|---|---|
| United States | 12,361.41 | 17.76% |
| China | 7,210.32 | 10.36% |
| Japan | 5,768.52 | 8.29% |
| Australia | 3,210.60 | 4.61% |
| Hong Kong | 3,049.61 | 4.38% |
| Malaysia | 2,811.11 | 4.04% |
| Singapore | 2,610.25 | 3.75% |
| Vietnam | 2,543.17 | 3.65% |
| India | 2,536.58 | 3.64% |
| Indonesia | 2,434.13 | 3.50% |

## Top 10 Exports (Jan-Mar 2024)

| Goods / Products | Value (US$ million) | Share |
|---|---|---|
| Vehicles and Parts | 7,410.42 | 10.65% |
| Computers and Parts | 4,925.57 | 7.08% |
| Jewelry Products | 4,033.96 | 5.80% |
| Rubber Products | 3,271.70 | 4.70% |
| Iron, Steel and Products | 2,180.50 | 3.13% |
| Machinery and Parts | 2,135.70 | 3.07% |
| Plastic Pellets | 2,048.89 | 2.94% |
| Refined Fuel | 2,009.61 | 2.89% |
| Integrated Circuits | 1,996.67 | 2.87% |
| Air-conditioner and Parts | 1,948.50 | 2.80% |

## Exchange Rates
**(As of March 2024)**

$ THB 36.72
£ THB 46.45
€ THB 39.90
¥ THB 23.72 (100 Yen)
¥ THB 5.12

Source: Bank of Thailand

## Tax Rate

**Corporate Income Tax: 0 – 20%**
**Personal Income Tax: 5 – 35%**
**VAT: 7%**
**Witholding Tax: 1 – 15%**

Source: the Revenue Department
(As of May 2024)


THAILAND BOARD OF INVESTMENT

# ABOUT BOI

**The Office of the Board of Investment (BOI)** is the principle goverment agency that operates under the Prime Minister's Office for the purpose of encouraging investment in Thailand. We at the BOI serve as the professional contact points for investors, providing them with useful investment information and services. We offer business support and investment incentive to foreign investors in Thailand, including tax and non-tax incentives. A few non-tax incentives include granting land ownership to foreigners and facilitating visas and work permits. Besides serving the needs of overseas investors, we also offer consultation services to Thai investors who are interested in investment opportunities abroad.

## BOI OVERSEAS OFFICES


### Head Office, Office Of The Board Of Investment

555 Vibhavadi-Rangsit Road, Chatuchak, Bangkok 10900 Thailand
Tel: +66 2553 8111 Fax: (+66) +66 2553 8315 E-mail: head@boi.go.th

**Los Angeles**
Thailand Board of Investment,
Los Angeles Office:
Royal Thai Consulate-General,
611 North Larchmont Boulevard,
3rd Floor Los Angeles CA 90004, USA
Los Angeles CA 90004, USA
Tel: +1 323 960 1199
Fax: +1 323 960 1190
E-mail: boila@boi.go.th

**New York**
Thailand Board of Investment,
New York Office:
7 World Trade Center, 34th Floor,
Suite F, 250 Greenwich Street,
New York 10007, U.S.A.
Tel: +1 212 422 9009
Fax: +1 212 422 9119
E-mail: nyc@boi.go.th

**Stockholm**
Thailand Board of Investment,
Stockholm Office:
Östermalmstorg 1, 4th Floor
114 42 Stockholm, Sweden
Tel: +46 8 5025 6558, +46 8 5025 6559
Fax: +46 8 5025 6500
E-mail: stockholm@boi.go.th

### BOI Marketing

www.boi.go.th

**Frankfurt**
Thailand Board of Investment,
Frankfurt Office:
Investment Section,
Royal Thai Consulate-General
Liebfrauenberg 26, 60313
Frankfurt am Main,
Federal Republic of Germany
Tel: +49 069 9291 230
Fax: +49 069 9291 2320
E-mail: fra@boi.go.th

**Paris**
Thailand Board of Investment,
Paris Office:
Ambassade Royale de Thaïlande 8,
Rue Greuze, 75116 Paris, France
Tel: +33 1 56 90 26 00-01
Fax: +33 1 56 90 26 02
E-mail: par@boi.go.th

**Mumbai**
Thailand Board of Investment,
Mumbai Office:
Express Tower, 12th Floor,
Barrister Rajni Patel Marg,
Nariman Point, Mumbai, Maharashtra
400021, India
Tel: +91 22 2204 1589-90
Fax: +91 22 2282 1525
E-mail: mumbai@boi.go.th

**Osaka**
Thailand Board of Investment,
Osaka Office:
Royal Thai Consulate-General,
Bangkok Bank Building, 7th Floor,
1-9-16 Kyutaro-Machi, Chuo-Ku,
Osaka 541-0056, Japan
Tel: +81 6 6271 1395
Fax: +81 6 6271 1394
E-mail: osaka@boi.go.th

**Tokyo**
Thailand Board of Investment,
Tokyo Office:
Royal Thai Embassy, 8th Fl.,
Fukuda Building West, 2-11-3 Akasaka,
Minato-ku, Tokyo 107-0052 Japan
Tel: +81 3 3582 1806
Fax: +81 3 3589 5176
E-mail: tyo@boi.go.th

**Seoul**
Thailand Board of Investment,
Seoul Office:
#1804, 18th Floor, Koryo Daeyeongak Center,
97 Toegye-ro, Jung-gu, Seoul, 100-706,
Republic of Korea
Tel: +82 2 319 9998
Fax: +82 2 319 9997
E-mail: seoul@boi.go.th

**Taipei**
Thailand Board of Investment,
Taipei Office:
Taipei World Trade Center, 3rd Floor,
Room 3E 39-40 No.5 Xin-Yi Road,
Sec. 5 Taipei 110, Taiwan R.O.C.
Tel: +88 6 2 2345 6663
FAX:+88 6 2 2345 9223
E-mail: taipei@boi.go.th

**Guangzhou**
Thailand Board of Investment,
Guangzhou Office:
Investment Promotion Section,
Royal Thai Consulate-General, Guangzhou
No. 36 Youhe Road, Haizhu District,
Guangzhou 510310, P.R. China
Tel: +86 20 8385 8988 ext. 220-225,
+ 86 20 8387 7770 (Direct Line)
Fax: +86 20 8387 2700
E-mail: guangzhou@boi.go.th

**Shanghai**
Thailand Board of Investment,
Shanghai Office:
Royal Thai Consulate General 2nd fl.,
18 Wanshan Road, Changning District,
Shanghai 200336, P.R. China
Tel: +86 21 5260 9876,
+86 21 5260 9877
Fax: +86 21 5260 9873
E-mail: shanghai@boi.go.th

**Beijing**
Thailand Board of Investment,
Beijing Office:
Royal Thai Embassy, No.21
Guanghua Road, Chaoyang District,
Beijing, 100600 P.R. China 100600
Tel: +86 10 8531 8755 to 87,
+86 10 8531-8753
Fax: +86 10 8531 8758
E-mail: beijing@boi.go.th

**Sydney**
Thailand Board of Investment,
Sydney Office:
Suite 101, Level 1, 234 George Street,
Sydney New South Wales 2000,
Australia
Tel: +61 2 9252 4884
Fax: +61 2 9252 4882
E-mail: sydney@boi.go.th

**Jakarta**
Thailand Board of Investment,
Jakarta Office:
Royal Thai Embassy
Jl. DR Ide anak Agung Gde Agung,
Kav. E3.3 No.3 (Lot 8.8)
Kawasan Mega Kuningan,
Jakarta 12950, Indonesia
Tel: +62 817 9800 203
E-mail: jkt@boi.go.th

**Hanoi**
Thailand Board of Investment,
Hanoi Office:
Royal Thai Embassy
26 Phan Boi Chau Street,
Hoan Kiem District, Hanoi City,
Viet Nam
Tel: +84 24 3823 5092-4
E-mail: hanoi@boi.go.th

**Riyadh**
Thailand Board of Investment,
Riyadh Office:
Royal Thai Embassy, Riyadh,
Kingdom of Saudi Arabia
Diplomatic Quarter, P.O. BOX 94359,
Riyadh 11693
Tel: (966-1) 488-1174
E-mail: riyadh@boi.go.th