

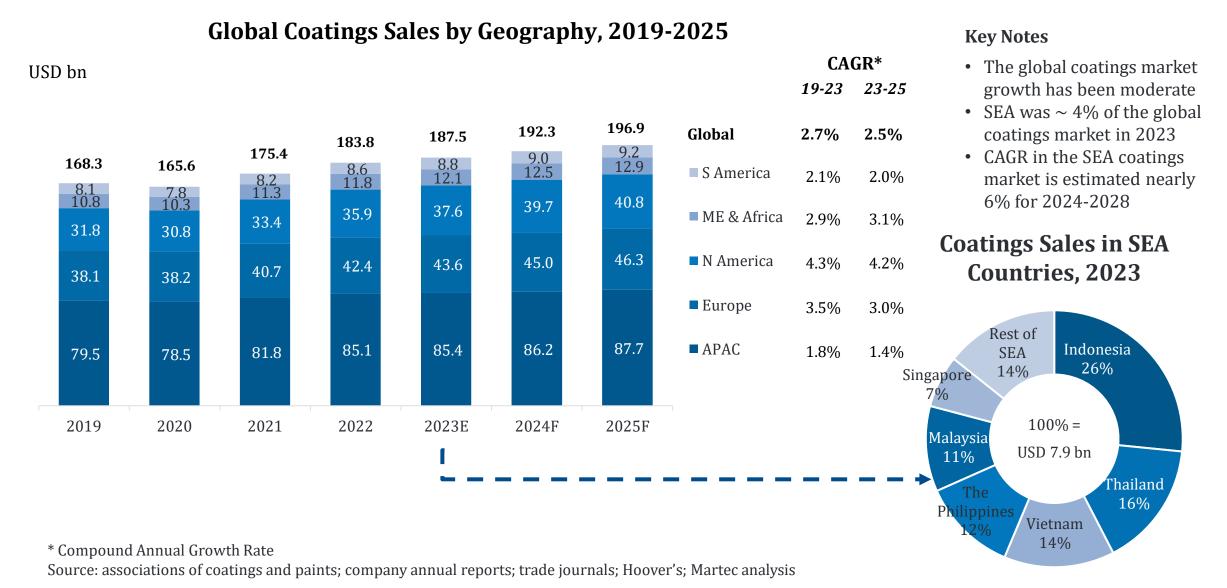
Development of the Coatings Market in SEA

Presented at the ASEAN Coatings New Technology Summit 2024

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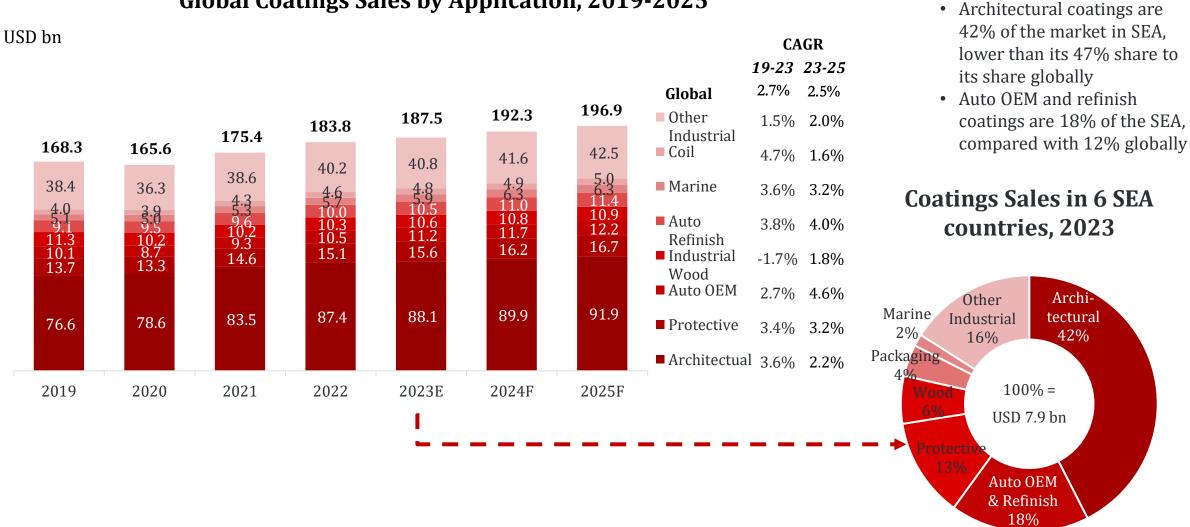
APAC is an important part of the a global coatings industry recovering from COVID, with a higher expected growth rate than the world average in the coming years



Architectural coatings are the largest application, followed by automotive and protective coatings, globally and in SEA

Key Notes





Coatings are becoming more eco-friendly and functionally enhanced driven by regulations, standards and advancements in technology

Sustainable and technically more advanced coatings are seeing increased adoption across various key sectors in SEA, driven by the need for enhanced performance, durability, and compliance with stringent regulations

Sustainable and Eco-Friendly Coatings

Low-VOC and water-based coatings are becoming more popular, driven in SEA by

- Regulations and standards, e.g.,
 - ASEAN SHINE
 - Regulation No. 41/1999
 - VOC Emission Standards
 - Environmental Quality Act
- Green certifications, e.g.,
 - LEED (Leadership in Energy and Environmental Design)
 - EcoLogo (UL Environment)
 - Green Label Indonesia
 - MYHIJAU Mark
 - GreenRE

Technological Advancements

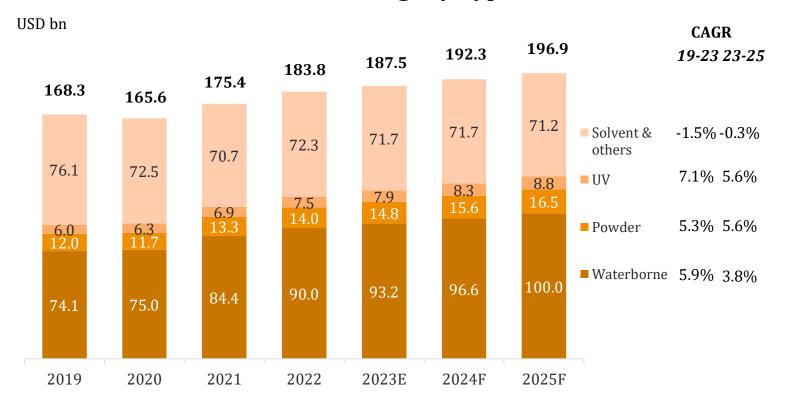
Innovative and smart coatings in SEA are in the early stages of adoption, with more traction seen in O&G, automotive, industrial, and select construction projects.

- Innovative Materials
 - Enhanced durability
 - Resistance to corrosion, and other functional properties
 - Properties suitable for changed substrates
- Smart Coatings
 - Self-healing (e.g., O&G)
 - Self-cleaning (e.g., automotive)
 - Antimicrobial (e.g., marine, healthcare)
 - Wear resistant (e.g., automotive)
 - Thermo- & photochromic (e.g., construction)



Low-VOC coatings keep gaining in penetration at the expense of solvent-based ones, and their further adoption in SEA needs more industry and government support

Global Sales of Coatings by Type, 2019-2025



Factors Affecting Adoption Rate

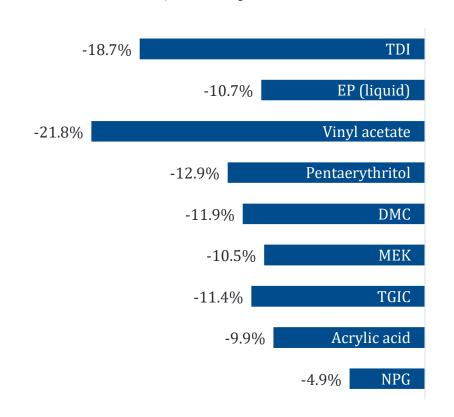
- Cost
- Awareness
- Regulatory support
- Infrastructure
- R&D

Examples of Application in SEA

- Oil and gas: Petronas (Malaysia)
- Marine: Keppel Offshore & Marine (Singapore)
- Automotive: Proton (Malaysia)
- Construction: Marina Bay Sands (Singapore)
- Aerospace: ST Engineering (Singapore)
- Consumer Electronics: Samsung (Vietnam)
- Healthcare: Singapore General Hospital
- Infrastructure: MRT (Singapore)

Market performance of coatings companies improved last year thanks to cost reduction in major raw materials as a result of falling oil prices

Prices of Select Coatings Raw Materials, December vs January 2023



Year-on-Year Growth of Public Companies, 2023 vs 2022



^{*} Including titanium dioxide, synthetic resins, coating additives, colorants and solvents and other upstream industries

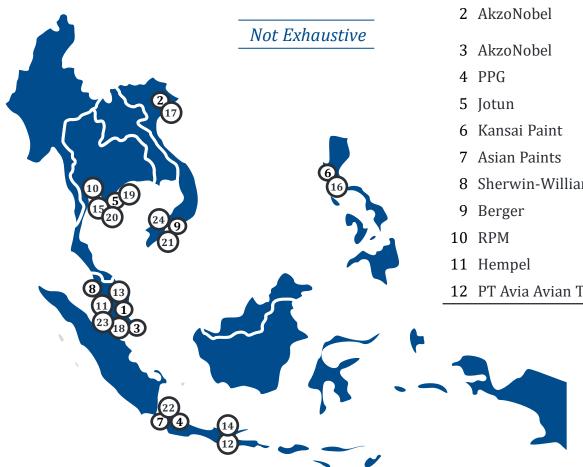
Sources: Wind; company annual reports; Martec analysis

M&A and partnership activities have been important to help coatings companies achieve market expansion and specialization in 2023 & 2024

KANSAI ⊗Briolf **M**TEC Feb '23 Nov'23 Jun '23 **HELIOS ⋄** Briolf **⊙** Arecoltalia ARKEMA Pl Advanced Materials ALTANA SILBERLINE Feb '23 Jun '23 Jan '24 KANSAI HELIOS SHERWIN-WILLIAMS. Feb '23 Aug '23 Feb '24 WEILBURGER nexa 北新建材 "灯塔涂料 шед **IMCD W** Oct '23 Apr '24 Apr '23 MASTER® >> BUILDERS ARKEMA Polytec PT Oct '23 May '24 May '23 Not Exhaustive Oct '23 GEVEKO MARKINGS May '23 **Beckers** M&A Partnership

Leading global and regional coatings players are doubling down on their investment in SEA to build stronger footholds

Expansion of Major Coatings Players in SEA since 2018



#	Company	Туре	Year	#	Company	Туре	Year
1	Nippon	R&D Mfg	2021	13	PT Avia Avian Tbk	Mfg	2020
2	AkzoNobel	Mfg	2019 14 2024 Exp 15	PT Avia Avian Tbk	R&D	2024	
				15	TOA Paint	Mfg	2019
3	AkzoNobel	R&D	2020	16	Pacific Paint (Boysen) Philippines	Mfg	2022
4	PPG	Mfg	2022				
5	Jotun	R&D Mfg	2020	17	Tesa	Mfg	2023
6	Kansai Paint	Mfg	2018	18	SKSHU	R&D Mfg	2021
7	Asian Paints	R&D	2021	19	Oriental Yuhong	Mfg	2020
8	Sherwin-Williams	Mfg	2023	20	Oriental Yuhong	Mfg	2024
9	Berger	R&D Mfg	2019	21	Carpoly	Mfg	2019
10	RPM	Mfg	2022	22	Yip's	R&D	2022
11	Hempel	R&D	2020	23	XJ Paint	Mfg	2018
12	PT Avia Avian Tbk	Mfg	2018	24	Clivia	Mfg	2024

Key Trends

- The expansions of coatings companies highlight the strategic focus on leveraging SEA's economic growth and market potential to expand R&D and production capabilities for sustainable and high-performance coatings.
- The added capacities are concentrated in southern Thailand, southern Vietnam, Peninsula Malaysia, and Java, Indonesia

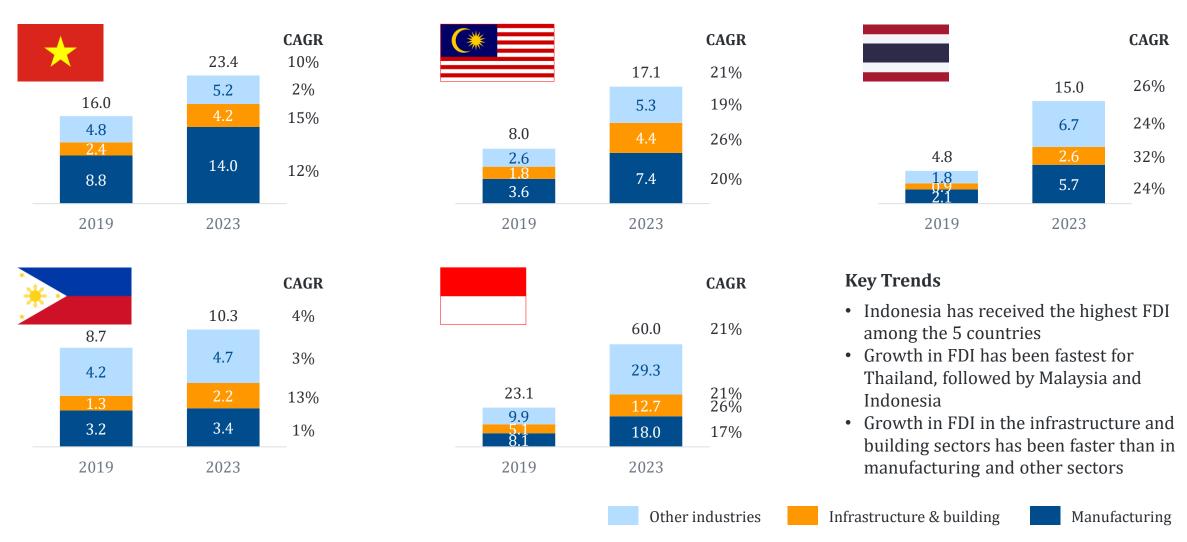
This is because SEA is one of the most vibrant marketplaces in the world

- At the crossroads of global trade, handling around a third of the its shipping and traded goods
- ASEAN the 3rd largest market in the world with 622 million people, behind only China and India
- Free trade agreements with markets of 4.2 billion people
 - ASEAN Free Trade Area (AFTA)
 - Regional Comprehensive Economic Partnership (RCEP)
 - Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)
 - ASEAN-Australia-New Zealand Free Trade Area (AANZFTA)
 - ASEAN-China Free Trade Area (ACFTA)
 - ASEAN-India Free Trade Area (AIFTA)
 - ASEAN-Japan Comprehensive Economic Partnership (AJCEP)
 - ASEAN-Korea Free Trade Agreement (AKFTA)
 - ...
- Evolving industrial bases over the past decades
- Among the top beneficiaries of the global supply chain restructuring
- Attracts 11% of the global foreign direct investment (FDI)

Source: Bailian; Martec analysis

SEA has seen fast-paced FDI growth, leaning heavily toward manufacturing and infrastructure development

Foreign Direct Investment in SEA Countries

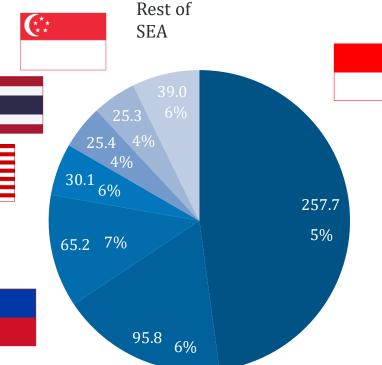


The construction boom taking place across SEA will see continued rise in demand for architectural coatings

Construction Output Value (2023) and CAGR (2024-2028)

USD bn, %

- Investments in clean energy projects and transport and public housing projects will drive the construction market demand in Singapore.
- The government's focus on the development of tourism infrastructure, energy generation, and housing projects will fuel the market growth
 - Investments in leisure and hospitality infrastructure; manufacturing facilities and roads; and renewable energy projects drive the construction market Malaysia.
 - The government's focus on developing transport and energy infrastructure, along with investment to develop affordable housing and social infrastructure will drive the market growth in the Philippines

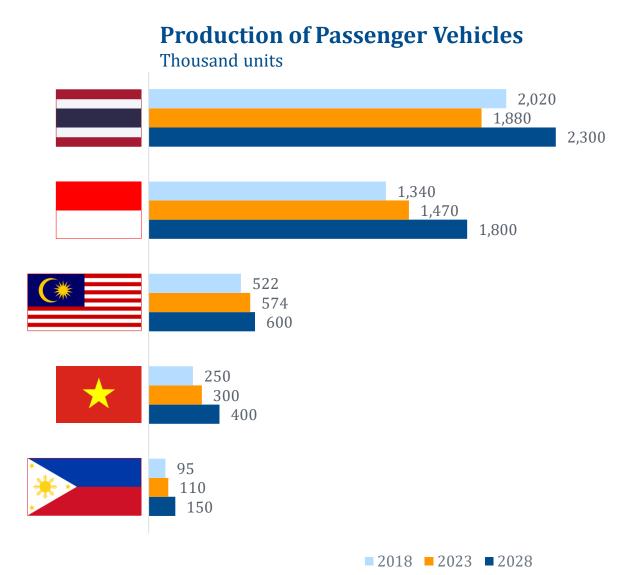


- The Indonesian government's plan to reduce greenhouse gas emissions and transition from coal to clean energy will drive the construction market during the projected period.
- Infrastructure construction sector accounted for the highest market share in 2023.



• The Vietnamese government's focus on the development of rail and road transport, renewable energy generation, and affordable housing will drive the market growth

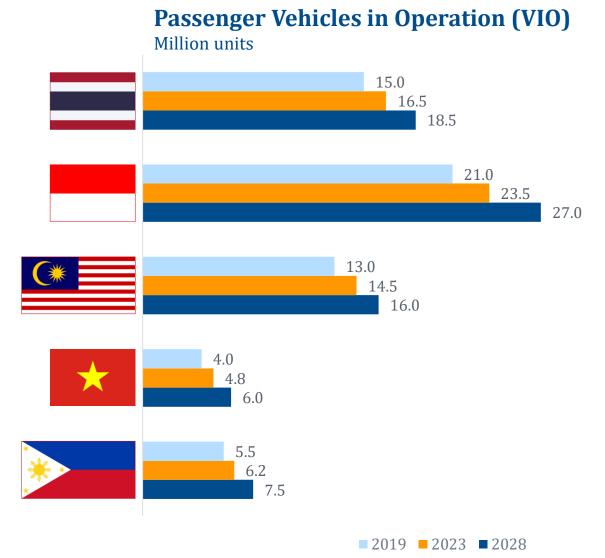
The region, particularly Thailand, Indonesia and Malaysia, is also a growing automotive manufacturing base with increasing demand for auto OEM coatings



Noteworthy Trends

- Thailand has been a significant player in the ASEAN automotive market, positioning itself as a major hub for electric vehicle (EV) production and component parts by 2035
- The total industry volume (TIV) for vehicles in Indonesia has been on an upward trajectory with infrastructural development and a rise in hybrid and electric vehicle adoption
- Malaysia's focus on hybrid and electric vehicles, along with advancements in charging infrastructure, are expected to drive steady growth in vehicle production and sales volumes
- Vietnam is focusing on expanding its production bases, with the government encouraging FDIs in the automotive sector, shifting towards EVs, and improvements in EV charging infrastructure
- The automotive market in the Philippines is poised for further growth as economic conditions improve and consumer demand increases

The fast economic development will also mean an increasing number of automobiles on the road in SEA, benefiting auto refinish paints

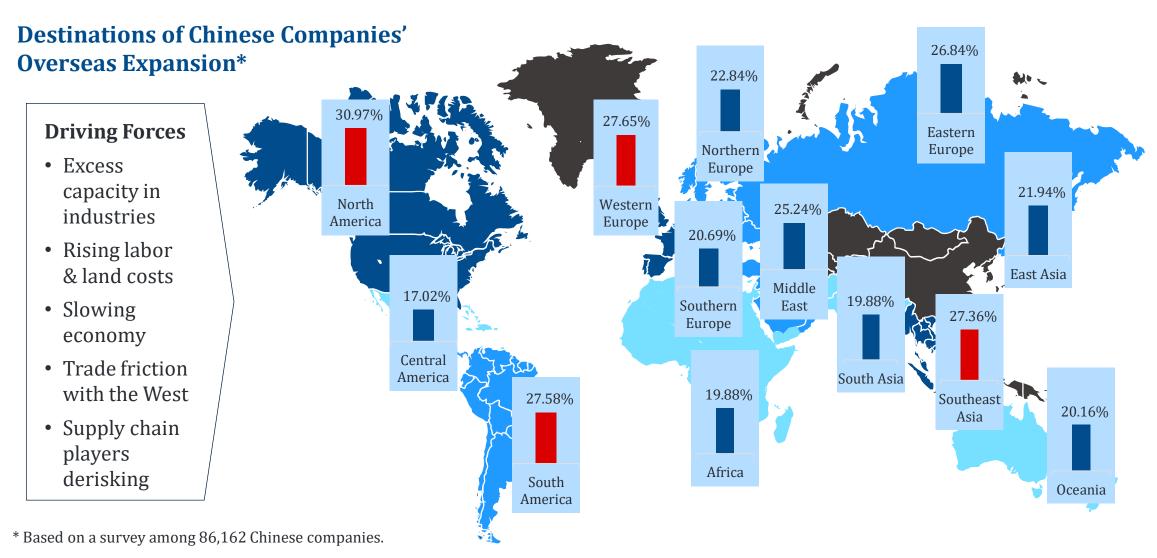


Noteworthy Trends

The following trends indicate a robust growth trajectory for the automotive industry in Southeast Asia, driven by supportive government policies, economic expansion, and technological advancements.

- Government Policies: Supportive policies, including tax incentives and investment in infrastructure, are driving growth in the automotive sector, particularly in EV adoption.
- Economic Growth: Increasing disposable incomes and economic growth are contributing to the rising number of vehicles in operation.
- Electric Vehicles (EVs): Across all these countries, there is a significant push towards increasing the number of electric vehicles. Governments are offering incentives, and automakers are expanding their EV production capacities to meet the rising demand.

The global supply chain shift has made SEA a highly popular destination for industrial expansion



Source: Bailian; Martec analysis

Chinese auto OEMs and suppliers are building capabilities in SEA with a keen outward looking focus

Existing and Planned Manufacturing Facilities of Chinese Auto OEMs and Battery Suppliers in SEA

Export of Passenger EVs Manufactured in China 1,000 units



They are in need for localized supply chain solutions in SEA but have been met with difficulties

Chinese auto OEMs must set up SEA production bases...

- Asia (mostly SEA) is Chinese OEMs' top export destinations, accounting for 36% of the total in 2023 and its proportions will further increase
- With an evolving automotive supply chain system and low labor costs, SEA has become the first choice for Chinese auto OEMs to build factories overseas

And create a localized supply chain system with rapid response and cost advantages

- Local supply chain capabilities and strategies (orders, logistics, packaging & customs duties)
- Medium and long-term cost planning (patents, contracts, and legal risks, spare parts)
- Supply chain talent construction

But they have concerns about multinational Suppliers in SEA ...

- A wait-and-see attitude towards Chinese automakers
- Slow reaction time
- Most do not have the ability to develop locally
- Higher cost

As well as Chinese Suppliers in the region

- Slow development
- Weak business risk resistance
- Excess capacity has increased the financial burden
- Not fully adjusted to the new environment
- Inadequate organizations and experience
- Inability to bring in business fast enough to support the initial investment

In summary, SEA is a dynamically growing market for coatings with clear sectoral, country and product opportunities

The Southeast Asian markets for coatings are driven by a combination of economic growth, urbanization, and increasing environmental awareness, indicating a dynamic and evolving market landscape

Marketplace Dynamics

- Economic and trade Policies
 - Trade agreements
 - Global supply chain shift bringing investment in manufacturing
- Infrastructure and industrial development
 - Construction boom across the region, particularly in Indonesia, Malaysia and Thailand
 - Automotive chief among industrial, primarily in Thailand, Indonesia and Malaysia
- Market consolidation and strategic partnerships
 - Mergers and acquisitions
 - Collaborations

Product and Technological Trends

- Sustainable and Eco-friendly Coatings
 - Regulations
 - Green Certifications
 - Consumer Demand
- Technological Advancements
 - Innovative Materials
 - Smart Coatings
- Customization and Specialization
 - Tailored Solutions
 - Specialty Coatings

Sources: Martec analysis

However, many challenges and risks persist in SEA under the global economic uncertainty and influence of factors unique to region

The SEA markets for coatings align with global trends while being shaped by regional factors to influence market dynamics and business strategies.

Intensifying Economic Natural Weak IP **Uncertainty** Competition **Protection Disasters Under-Cultural & Political** Price developed Linguistic **Stability Sensitivity Supply Chain Diversity** Inadequate Regulatory **Skilled Labor Raw Material Complexity** Infrastructure **Shortage Price Volatility**

In order to prosper in SEA, coatings companies must carefully develop strategies and execute them well on a number of key success factors

The strategic importance of Southeast Asia for the global coatings industry, driven by strong market growth, urbanization, and increasing demand for sustainable products, calls for companies to carefully understand and handle key external and internal business elements in the market







Grow Business

- Macro Economics
- Supply Chain Disruption
 - Market Demand
 - Competition
 - Operation

Develop People

- HR Management
- Talent Development & Retention
- Cultural Integration

Mitigate Risks

- Legal & Regulatory
 - Political
- Network Security
- Natural & Climate







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