

Manufacturing in ASEAN: Market Access and Supply-Chain Choices

Comparing location choices in Vietnam, Malaysia, Thailand and Indonesia amid US–China competition.

Research Report | Research cutoff: 20 September 2026 (UTC+8)

Key judgments

Manufacturers should establish product eligibility and operating conditions before comparing ASEAN locations. Agreement status, production processes and compliance capability shape the choice; country-level additional-duty tiers capture only part of the cost.

1. Test tariff differences product by product. The additional duties implemented on 24 July use country tiers, but exclusions and other duties change landed cost. The 2.5-point gap cannot be applied uniformly to electronics or automotive supply chains.
2. Establish origin through real processing. Historical US transshipment measures and Malaysian certification controls show enforcement intent. Current liability requires operative rules; ASEAN preferential origin does not establish US origin treatment.
3. Compare the two chains separately. Electronics location choices depend on supplier ecosystems and technology-control exposure. Automotive and battery projects place greater weight on regional demand and resource integration.
4. Translate political developments into project checks. Thai leadership turnover and Indonesian protests point to distinct questions about approval continuity, community relations and labour risk.

Before irreversible investment, verify product classification, agreement implementation, supplier eligibility and project approvals. The scenarios below track tariff litigation, sectoral measures and agreement changes without assigning a predicted outcome.

Scope and Context

This study compares Vietnam, Malaysia, Thailand and Indonesia as manufacturing locations; Singapore is considered as a headquarters and coordination node. Two contrasting chains anchor the analysis: electronics manufacturing (semiconductor packaging, components, assembly) and automotive/clean-energy manufacturing (electric vehicles, batteries, nickel processing). The choice reflects genuinely different relocation logics — ecosystem pull in electronics versus market and resource pull in vehicles and batteries.

Five terms used in this debate are routinely conflated and are kept separate here: **capacity migration** (a firm moving its own plant), **trade diversion** (policy-related shifts in sourcing or trade flows), **local value addition** (the domestic contribution to output, measured separately from legal origin qualification), **investment**

commitments (announced or applied-for capital, such as Thailand Board of Investment (BOI) applications) and **commissioned production** (verified operating output). Vietnam's US\$27.6 billion disbursed foreign direct investment (FDI) in 2025 measures capital realization, not production. Thailand's 2025 investment applications of roughly US\$60 billion describe intentions; Vietnam's disbursement data describe realized investment. Neither establishes plant output or utilization. Strategy built on the wrong column of this table will misprice ASEAN.

Findings and Analysis

1. Policy commitments shape additional-duty tiers

On 31 July 2025, Executive Order 14326 set reciprocal tariffs of 20% for Vietnam and 19% for Malaysia, Thailand and Indonesia — a one-point spread. The Supreme Court's *Learning Resources v. Trump* decision (20 February 2026) held that IEEPA authorizes no tariffs at all; collection of all IEEPA duties ceased on 24 February 2026, replaced by a uniform 10% Section 122 surcharge that expired by statute on 24 July 2026. In July 2026, a presidential memorandum converted Section 301 forced-labor investigations of 60 economies into a new schedule: 10% for economies that enforce a forced-labor import ban or committed to one in an ART — Indonesia and Malaysia qualify — and 12.5% for all other investigated economies, a category that includes Vietnam and Thailand. CBP guidance sets 24 July as the effective date: Indonesia uses heading 9903.05.45, Malaysia .54, Thailand .77 and Vietnam .84. Heading .90 excludes specified semiconductor, vehicle and metal articles under U.S. note 52(f); batteries and assemblies require individual classification.

Textile quotas remain contingent on an operative allocation notice; the final action provides for establishment when feasible.

The mechanism matters more than the numbers. Differentiation by decree (EO 14326) gave the four countries nearly identical treatment; differentiation by statute (Section 301) rewards documented commitments — forced-labor bans, duty-evasion cooperation, export-control alignment — that Malaysia and Indonesia signed and Vietnam and Thailand have only foreshadowed in framework statements. Whether the 301 schedule survives litigation (its severability clauses anticipate court challenges) is an open question; what is already visible is the template: US market access is priced in verifiable policy commitments.

2. Test origin against destination-market rules

The 2025 system paired incentives with enforcement. Its IEEPA-based provisions are historical evidence here; current liability requires the operative legal basis and customs guidance. EO 14326 imposed a 40% duty on goods CBP determines were transshipped to evade tariffs, with penalties stacked and mitigation expressly disallowed, and mandated a twice-yearly public list of countries and facilities used in circumvention schemes. Malaysia responded before any US finding: from 6 May 2025, MITI became the sole issuer of non-preferential certificates of origin for US-bound shipments, ending issuance by chambers and business councils and expanding audits with the Royal Malaysian Customs Department. The signed US-Malaysia ART sets out cooperation commitments, subject to its entry-into-force provisions: Malaysia must combat transshipment, sign a duty-evasion cooperation agreement, and align with all US unilateral export controls in force. Article

4.1 adds that if agreement benefits accrue substantially to third countries, either party may establish rules of origin to prevent it.

Inside ASEAN, the ASEAN Trade in Goods Agreement (ATIGA) generally allows 40% regional value content or a change in tariff heading, subject to product-specific rules and cumulation across member states. This supports intra-ASEAN supply chains — and its Article 31 explicitly excludes packaging, transport and preservation operations from conferring origin. Two practical conclusions follow. First, an ATIGA certificate alone does not establish US non-preferential origin or Section 301 treatment; underlying manufacturing records remain relevant; companies need both analyses, separately. Second, the residual lawful gains are structural: real processing that shifts tariff headings, documented local value, and eligibility for ART-linked rates and quotas. Paper relocation can create origin and enforcement exposure; the applicable rule and facts determine liability.

3. Compare the four countries by production stage

Electronics. Vietnam's evidence here concerns investment scale: US\$38.4 billion registered FDI in 2025 with record US\$27.6 billion disbursed, hosting operations such as Amkor's US\$1.6 billion Bac Ninh advanced packaging plant (opened October 2023). Amkor's February 2026 presentation reports Vietnam ramp-up; its LinkedIn post says five of its ten largest customers manufacture there. These same-company disclosures establish reported operating progress, without quantifying output or relocation from China. Its investment support fund under Decree 182/2024/ND-CP (effective 31 December 2024) offers cash support of up to 50% of initial investment for semiconductor and artificial intelligence research and development centers — a direct answer to the global minimum tax's erosion of tax holidays. Malaysia competes on depth: Infineon's Kulim 3 silicon carbide (SiC) fab (phase one, €2 billion, opened August 2024; phase two up to €5 billion, 100% green electricity) anchors a National Semiconductor Strategy targeting at least RM500 billion of phase-one investment.

Thailand's 2025 BOI applications show its electronics niche — printed circuit boards (PCBs), passive components, high-density batteries — within US\$8.9 billion of electrical and electronics projects. Indonesia is the outlier: its electronics story is derivative of the battery chain below.

Automotive and clean energy. Thailand's investment proposition includes a regional automotive ecosystem: BYD announced the opening of its Rayong plant in July 2024. That announcement supports a production-location example, not a conclusion about current sales mix or capacity utilization. Indonesia runs on resource lock-in: the CATL-ANTAM-IBC project (groundbreaking June 2025, planned investment near US\$6 billion) integrates nickel mining and processing in North Maluku with cell manufacturing in Karawang, a planned first-phase capacity of 6.9 GWh. The US-Indonesia ART (signed 19 February 2026) commits Jakarta to remove export restrictions on industrial commodities including critical minerals to the US — a clause that will shape where Indonesian nickel output can go. Meanwhile the EU-Indonesia CEPA, negotiations concluded 23 September 2025, envisages phasing out Indonesia's 50% car import tariff and broader market opening once applicable legal procedures and implementation are completed — a prospective benefit; the Commission's published text expressly reserves binding force until internal procedures are completed.

Thailand's European Union (EU) free trade agreement (FTA) negotiations continued toward a planned September 2026 round. Vietnam has held an in-force EU agreement since 1 August 2020, with its investment

protection agreement still awaiting full member-state ratification, while Malaysia relaunched FTA negotiations with Brussels only in January 2025.

The regulatory overlays differ by chain. Electronics faces export-control exposure: the Bureau of Industry and Security (BIS) "Affiliates Rule" extending end-user controls to 50%-owned affiliates is suspended until 9 November 2026, and its reinstatement would reach joint-venture structures across ASEAN. Vehicles and batteries face forced-labor import bans (Malaysia must implement one within two years of its ART entering into force; Indonesia has committed to the same), and the EU's Carbon Border Adjustment Mechanism (CBAM), in its definitive phase since 1 January 2026 — an exposure for covered goods and their supply chains. Certificate purchases begin in February 2027 for 2026 imports; current procurement needs emissions records and a cash-flow provision.

4. Trace political disruption to project conditions

Thailand's constitutional court removed Prime Minister Paetongtarn Shinawatra in August 2025; parliament installed Anutin Charnvirakul on 5 September 2025 — the third premier in two years — on a conditional deal requiring an election within four months. Notably, the EU FTA process continued uninterrupted through the transition, which cuts both ways: institutional continuity exists, and project teams should check formal changes to approvals and incentives; political turnover alone does not cancel them. Indonesia's August 2025 protests — sparked by lawmakers' allowances worth roughly ten times Jakarta's minimum wage and escalated by the death of a ride-hailing driver — forced President Prabowo to cancel a China trip and retreat within days; observers framed it as the first serious test of his presidency. For resource-integrated projects in nickel or industrial parks, community and labor relations now carry demonstrated escalation speed. For Vietnam and Malaysia, the evidence examined here chiefly concerns policy negotiation with Washington, where both have accepted (Malaysia) or are negotiating (Vietnam) terms that constrain third-country alignment.

The 2024 pledge that Malaysia would be "the most neutral and non-aligned location for semiconductor production" now coexists with a signed obligation to align with US unilateral export controls — neutrality has become a negotiated variable.

Implications for Business

Singapore can coordinate treasury, procurement and compliance across this footprint; headquarters location does not confer manufacturing origin. The following comparison supports screening, without estimating returns from unavailable client data. The implemented additional rates are not total payable duties; classification, exclusions and other duties determine the transaction-level result.

Exhibit 1. Location choices require agreement, production and compliance checks

Four countries; qualitative screening at 20 September 2026.

Decision dimension	Suitable when	Gains	Costs and constraints	Verify before committing
Market access and origin	Host has signed ART (Malaysia, Indonesia) or EU FTA track (Vietnam in force; Indonesia negotiations concluded; Malaysia and Thailand negotiating)	Potential 2.5-point additional-duty difference for non-exempt goods; textile tariff-rate quotas (TRQs) conditional on implementation; EU phase-downs where in force	Forced-labor ban implementation duties; origin audits; ART termination clauses (e.g., Malaysia agreement Art. 5.3(3))	ART entry-into-force status; US annexes listing zero-rate products; host certificate-of-origin issuance procedure (Ministry of Investment, Trade and Industry (MITI) sole issuer for US-bound)
Capital siting	Segment matches national ecosystem: Vietnam assembly/packaging, Malaysia silicon carbide/semiconductor packaging, Thailand printed circuit boards/automotive, Indonesia nickel-battery	Incentives (Vietnam Decree 182 cash support; Malaysia's National Semiconductor Strategy; Thailand Board of Investment) and supplier depth	Incentive thresholds and training obligations (Vietnam); political turnover risk (Thailand); community/labor escalation (Indonesia)	Current incentive regulations and disbursement rules; grid and green-power availability at site level (Infineon's 100% green electricity is a benchmark, not a default)
Suppliers	Dual qualification across at least two ASEAN states plus China-origin inputs reviewed	Resilience to single-country tariff or political shocks	Regional value-content threshold (generally 40%; product rules apply); BIS affiliates exposure if counterparties are list-adjacent	Supplier ownership structure against Entity List/Specially Designated Nationals lists; Section 301 annex exemptions per economy
Cost and lead time	Tariff tiers and logistics modeled together	Check exclusions before comparing logistics, yield and energy; country tiers are not uniform sector costs	Tariff-authority transitions (Section 122 episode) can strand assumptions mid-year	Landed-cost model with tariff scenarios, not point estimates
Regulatory and reputational	Compliance function can evidence genuine processing	Access to ART/TRQ benefits; audit readiness	40% transshipment penalty logic (precedent), 19 U.S.C. 1592 penalties, forced-labor enforcement, CBAM data demands	CBP circumvention list publications; EU CBAM declarant status; host labor-law amendments promised in ARTs

Notes: Screening conditions, not a country ranking. Rates refer to implemented additional duties; exclusions require product classification. Source: policy sources listed below; Hale qualitative synthesis.

Exhibit 2. The two chains require different exposure tests

Mechanism schematic; no estimated effect sizes.

Chain	Transmission	Decision affected
Electronics	Technology and counterparty controls	Supplier eligibility and licensing
Vehicles and batteries	Resource access, traceability and regional demand	Integration depth and market choice

Notes: Both chains can face both sets of constraints. Source: Policy sources listed below; Hale qualitative synthesis.

Outlook and Signposts

Scenario A — Agreement-linked tiers consolidate. Timing: through 2027. Drivers: Vietnam and Thailand convert frameworks into signed ARTs with forced-labor commitments, following the precedent by which Cambodia and others moved into the 10% tier. Observable triggers: ART signature announcements; Federal Register notices amending Section 301 rates; TRQs for Indonesia and Malaysia operating. Business impact: tariff planning regains a stable baseline; compliance expenditure can be assessed against product-specific benefits. Evidence that would weaken this scenario: stalled negotiations, or USTR declining to move new signatories into the 10% tier. Mechanism confidence: moderate; negotiated timelines remain unconfirmed. No probability ranking is assigned.

Scenario B — Sectoral escalation. Timing: any point from late 2026. Drivers: reported plans for new Section 232 investigations (batteries, telecom equipment, grid equipment among the categories discussed) and possible reinstatement of the BIS Affiliates Rule after 9 November 2026. Triggers: Federal Register investigation notices; BIS rulemaking. Business impact: origin savings alone may not offset sectoral duties for covered categories; electronics and battery chains reprice globally. Falsifiers: a formal extension or repeal of the affiliates rule; congressional action narrowing Section 232. No probability assigned; mechanism confidence: low — the 232 items remain at the level of reported intentions.

Scenario C — Litigation changes additional duties. Timing: late 2026–2027; the February 2026 transition illustrates changes of legal authority. Drivers: litigation against Section 301 actions (the memorandum's severability architecture anticipates it), congressional refusal to extend Section 122-type authorities, refund litigation over collected IEEPA duties. Triggers: court injunctions against specific economy tariffs; CBP refund guidance. Business impact: changes to affected additional duties and potential refund claims, subject to judicial scope and implementation; ordinary and sectoral duties may remain; contracts need tariff-change clauses. Falsifiers: early judicial deference to the 301 record and quiet dockets. No probability assigned; confidence is moderate on the mechanism and low on timing.

Exhibit 3. Different triggers require different commitment responses

Planning scenarios through 2027; no assigned probabilities.

Scenario	Observable trigger	Decision response
Agreement tiers	Implementing notice	Recalculate eligible products
Sectoral escalation	Effective sectoral measure	Reassess covered product economics
Litigation	Court order and customs instructions	Reconcile duties and contractual allocation

Notes: Scenarios may overlap. Source: scenario reasoning above; Hale planning synthesis.

Discuss manufacturing location choices

Discuss product-level market access, supplier conditions and location scenarios with Hale. A product list, target markets and candidate locations help define the research scope.

Sources

Supreme Court of the United States, *Learning Resources, Inc. v. Trump*, No. 24-1287 (slip op.), decided 20 February 2026, Syllabus and Holding, [Source](#)

The White House, Presidential Memorandum: Actions by the United States in the Section 301 Investigations of 60 Economies (Forced Labor Import Prohibitions), July 2026, Sections 1–2, [Source](#)

U.S. Customs and Border Protection, CSMS #69326983, Guidance: Section 301 Forced Labor Import Duties, 23 July 2026; headings 9903.05.45, .54, .77, .84, .90; U.S. note 52. [Source](#)

The White House, Executive Order 14326, "Further Modifying the Reciprocal Tariff Rates," 31 July 2025, Sections 2–3 and Annex I, [Source](#)

Ministry of Investment, Trade and Industry (Malaysia), "MITI Will Be the Sole Issuer of Non-Preferential Certificates of Origin for Exports to the United States from 6 May 2025," press statement, 5 May 2025, [Source](#)

CATL, "CATL and Partners Break Ground on US\$6 Billion Battery Integration Project in Indonesia," 30 June 2025, [Source](#)

BBC News, "Anutin Charnvirakul: Thailand names third prime minister in two years," 5 September 2025, [Source](#)

BBC News, "Indonesian politicians to have perks cut in bid to quell unrest," 31 August 2025, [Source](#)

Vietnam Investment Review, "FDI inflows reach \$38.42 billion in 2025" (citing the Foreign Investment Agency, Ministry of Finance), 6 January 2026, [Source](#)

Thailand Board of Investment, "Thailand's Investment Applications Reach New Highs in 2025," Press Release No. 15/2569, 26 January 2026, pp. 1–2, [Source](#)

White & Case LLP, "Trump Administration Imposes 10% Section 122 Tariff in Plan to Replace IEEPA Tariffs," February 2026 (citing EO 14389, 91 FR 9437; Presidential Proclamation 11012, 91 FR 9339; CBP CSMS #67834313 and #67844987), [Source](#)

USTR, Notice of Actions in Section 301 Investigations, 2026-15181, scheduled publication 28 July 2026, pp.1–2 and Annexes I–II. [Source](#)

The White House, "Agreement Between the United States of America and Malaysia on Reciprocal Trade," signed at Kuala Lumpur, 26 October 2025, Arts. 2.9, 2.12, 4.1, 5.1–5.3, 7.2, [Source](#)

The White House, "Joint Statement on United States-Vietnam Framework for an Agreement on Reciprocal, Fair, and Balanced Trade," 26 October 2025, [Source](#)

The White House, "Joint Statement on a Framework for a United States-Thailand Agreement on Reciprocal Trade," 26 October 2025, [Source](#)

ASEAN Secretariat, ASEAN Trade in Goods Agreement (consolidated text), Arts. 28–31 and Annexes 7–8, [Source](#)

Amkor Technology, "Amkor Inaugurates Latest Factory in Vietnam," 11 October 2023, [Source](#)

Amkor Technology, Q4 2025 Financial Results, February 2026, p.5 (2025 Highlights). [Source](#) company LinkedIn post, exact date not displayed, accessed 20 September 2026. [Source](#)

EY, "Vietnam enacts Decree on establishment, management and use of Investment Support Fund" (Decree 182/2024/ND-CP), 10 January 2025, [Source](#)

Infineon Technologies AG, "Infineon opens the world's largest and most efficient 200-millimeter silicon carbide power fab in Kulim, Malaysia," 8 August 2024, [Source](#)

MIDA, "Malaysia aims to woo RM500 bln investments in phase 1 of NSS – PM Anwar," 28 May 2024, [Source](#)

BYD, "BYD Thailand Factory Inauguration and Roll-off of Its 8 Millionth New Energy Vehicle," 4 July 2024, [Source](#)

The White House, "Fact Sheet: Trump Administration Finalizes Trade Deal with Indonesia," 20 February 2026, [Source](#) Cabinet Secretariat of the Republic of Indonesia, "Indonesia, US Sign Reciprocal Trade Agreement to Deepen Economic Cooperation," 20 February 2026, [Source](#)

EEAS/European Commission, "EU and Indonesia conclude negotiations on IEU CEPA," 23 September 2025, [Source](#)

European Commission DG Trade, Text of the EU–Indonesia agreements, publication following 23 September 2025 ministerial announcement; legal-status disclaimer, accessed 20 September 2026. [Source](#)

Nation Thailand, "Suphatee says EU FTA deal could lift Thai growth above 3% as Sept 28 talks near," 18 September 2026, [Source](#)

European Commission DG Trade, "EU trade relations with Viet Nam" (EVFTA in force since 1 August 2020; IPA pending ratification), [Source](#)

MIDA/InvestMalaysia, "Joint Statement on the Resumption of Free Trade Agreement Negotiations Between Malaysia and the European Union," 20 January 2025, [Source](#)

Bureau of Industry and Security, "One-Year Suspension of Expansion of End-User Controls for Affiliates of Certain Listed Entities," Federal Register, 12 November 2025 (staying IFR of 30 September 2025, 90 FR 47201, until 9 November 2026), [Source](#)

European Commission DG TAXUD, "CBAM successfully entered into force on 1 January 2026," 14 January 2026, [Source](#)

European Commission DG TAXUD, Price of CBAM certificates, Article 20 implementation, accessed 20 September 2026. [Source](#)

Reminder: CBAM goes live on 1 January 2026, 23 December 2025. [Source](#)