FROST & SULLIVAN

ASEAN As The Next Trade And Supply Chain Growth Platform

Ports, Trade And Logistics

10

Trade, intra-ASEAN networks, and investment opportunities shaping regional trade.

- Trade Routes
- Data Streams
- Manufacturing Hubs

EXECUTIVE SUMMARY

ASEAN's Growth Story Is Becoming A Logistics Story

Demand Growth

Young, fast-growing workforce

680M

POPULATION

Supply Chain Reconfiguration

China + ASEAN production cluster

US$230B

FDI INFLOW

Digital Trade

Digital rails & interoperability

US$263B

DIGITAL ECONOMY

Energy Transition Logistics

Critical minerals & green growth

25%

OF GLOBAL ENERGY DEMAND GROWTH

Source: UNCTAD · Google–Bain e-Conomy · IEA

TREND 01

Foreign Investors Are Deepening ASEAN Production Footprints

43.8%

of Japanese firms planning expansion

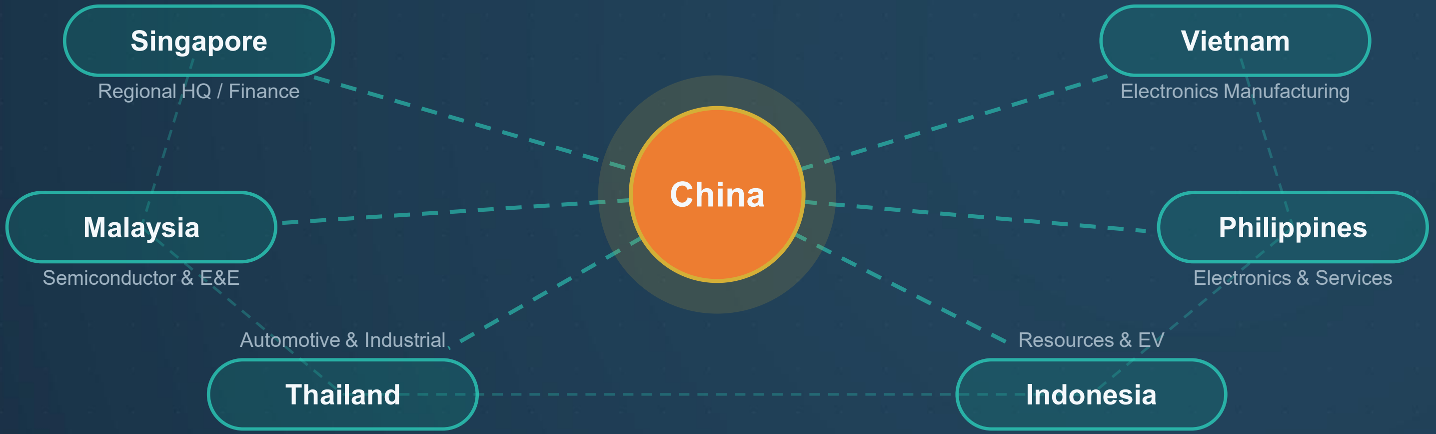
- ASEAN share of Japanese overseas affiliates has risen for 11 consecutive years
- Japanese SMEs increasingly view ASEAN as a core growth geography
- Growth extends beyond FDI into supplier localization and capability building
- More supplier parks, bonded logistics, cross-border trucking, port-to-plant connectivity.

From Export Destination to Strategic Growth Engine

Source: JETRO, METI

TREND 02

China+1 Is Evolving into a China+ASEAN Production Network



71.5%

DEVELOPED NEW SUPPLIERS

Expanded supplier networks over the past five years.

39.3%

PLAN TO EXPAND LOCAL PROCUREMENT

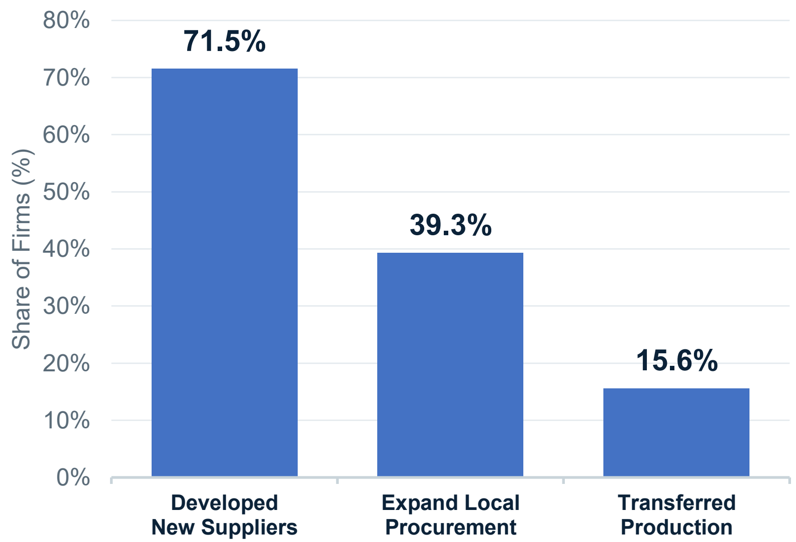
Intend to source more components within ASEAN.

15.6%

TRANSFERRED PRODUCTION

Shifted manufacturing from other countries into ASEAN.

JETRO Supply Chain Reconfiguration Signals



Companies are diversifying across **multiple ASEAN countries** rather than relocating to a single alternative market — companies are not choosing one country; they are **distributing sourcing, manufacturing, and assembly across ASEAN.**

Source: JETRO Asia & Oceania Survey; Frost & Sullivan Analysis

TREND 03 Johor–Singapore SEZ: A Model for Cross-Border Industrial Logistics

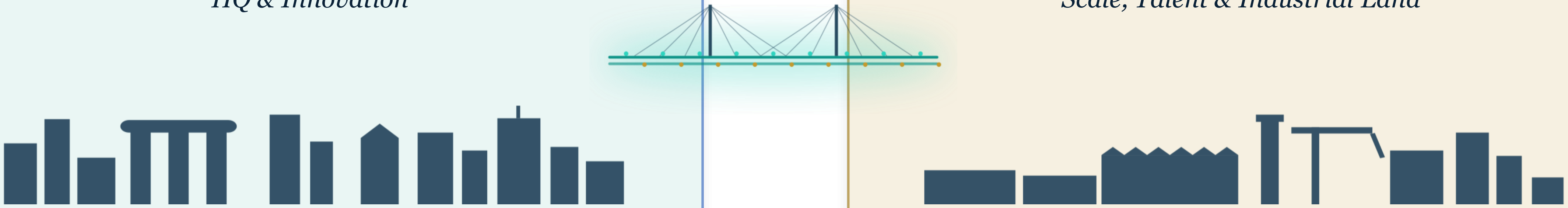
A Bi-National Operating System, Regional Distribution Potential

SINGAPORE

HQ & Innovation

JOHOR

Scale, Talent & Industrial Land



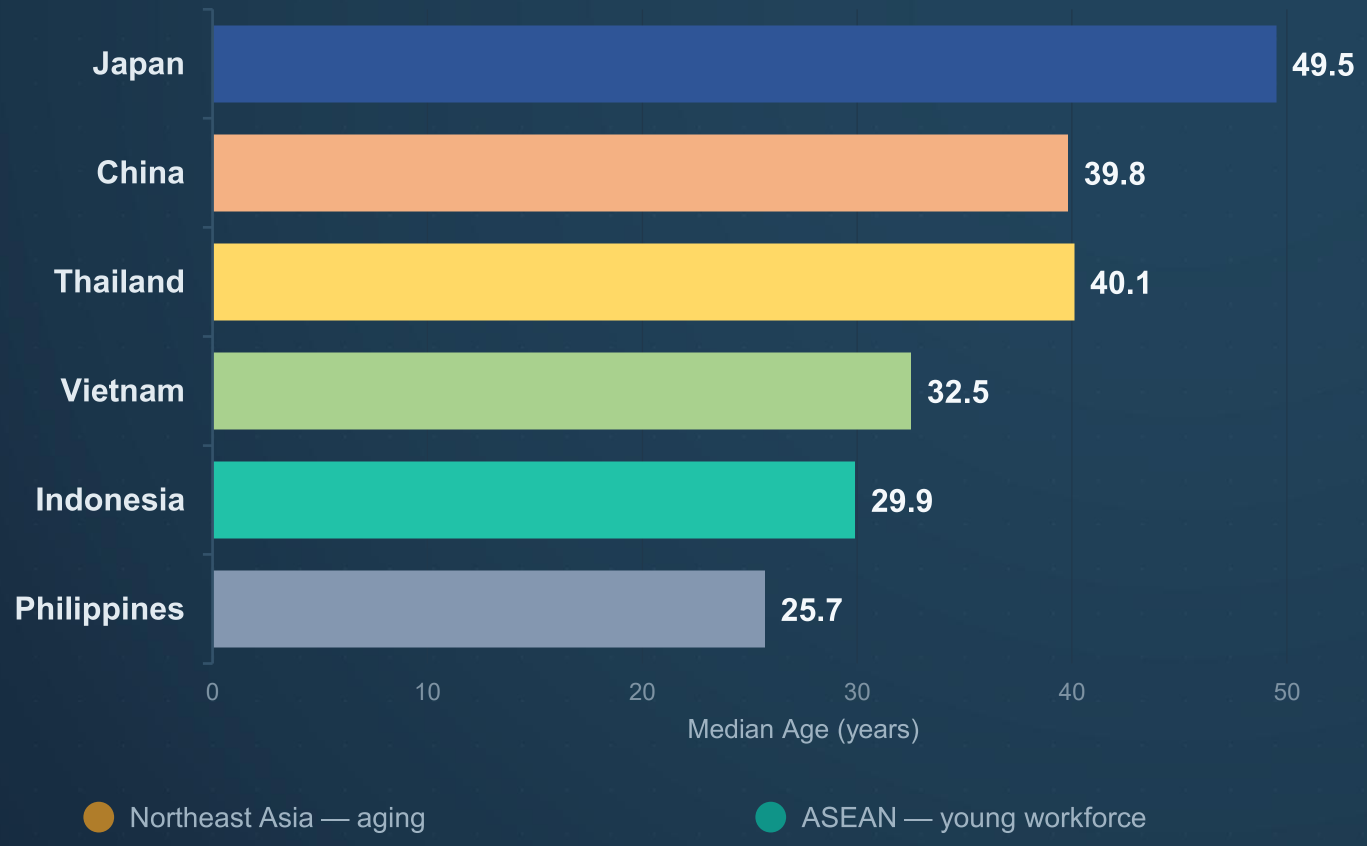
- Port-airport Access
- Talent Mobility
- Customs Simplification
- Industrial Land

100	20,000	S$123.6B	RM43.7B
PROJECTS	SKILLED JOBS	TRADE	FDI

Source: EDB Singapore, MIDA

TREND 04 DEMOGRAPHIC ARBITRAGE

ASEAN's Demographics Will Sustain Manufacturing and Consumption Growth



Aging Northeast Asia
Japan and China face shrinking, older labour pools.

Young ASEAN Workforce
A large, expanding base of working-age talent, increase urban consumption

Long-Term Labour Competitiveness
Sustained cost and supply advantage for decades, more production shifts

Manufacturing Relocation Driver
Demographics anchor production shifts into ASEAN, and expanded domestic distribution demand

Source: PopulationPyramid

Partnerships, JVs and M&A Will Accelerate ASEAN Logistics Capability Building

01

Greenfield Expansion

Build selected assets in priority logistics nodes.

02

Strategic Partnership

Use local partners to access corridors, customers and regulatory know-how.

03

Acquisition

Buy into existing platforms to gain scale, assets and customer relationships.

04

Regional Platform Build

Integrate assets into an ASEAN-wide logistics network

Port Capacity → Inland Connectivity → Warehousing / Cold Chain → Digital Control Tower → Regional Network

Corridor Access

Partners and acquisitions help logistics players enter high-growth ASEAN trade lanes faster.

Asset Control

Strategic usage/ ownership of warehouses, depots, terminals and fleets

Customer Stickiness

Integrated logistics platforms support larger contracts

Regional Scalability

Allows players to expand from one country to ASEAN coverage

- Warehousing
- Ports & Inland Hubs
- Digital Freight Platforms
- Cold Chain
- Cross-Border Logistics

Source: UNCTAD, ASEAN Investment Report

TREND 06 DIGITAL TRADE & LOGISTICS INTEGRATION

Digital Integration Will Reduce Friction in Regional Trade

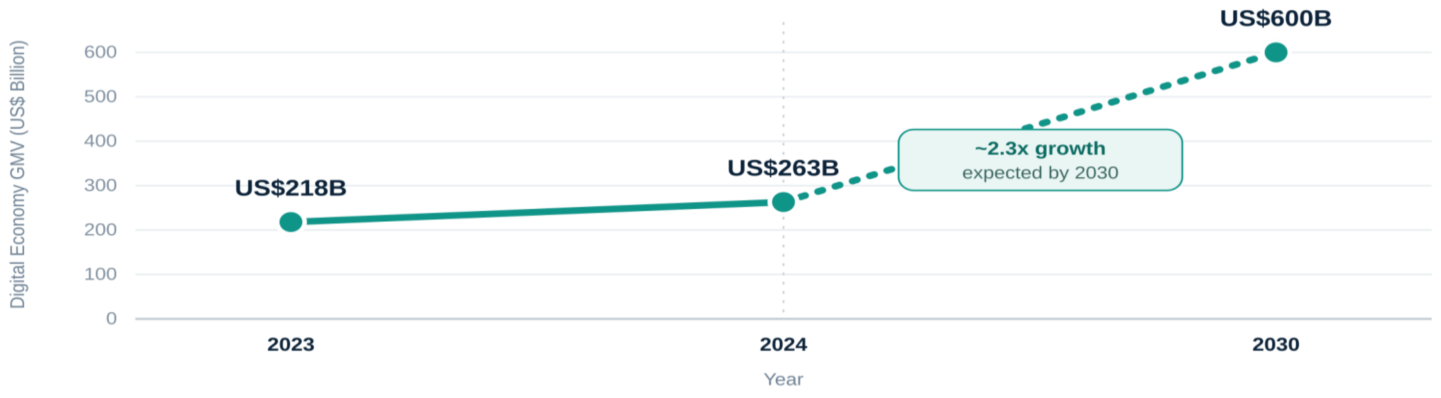
US$263B
Digital Economy GMV, 2024

US$89B
REVENUE GENERATED

US$11B
PROFIT GENERATED

> *ASEAN's next logistics advantage will come from connecting physical trade flows with digital rails — across ports, borders, payments, customs and supply chains.*

Southeast Asia Digital Economy Growth Trajectory



Digital Accelerators for Trade

Cross-Border Payment Connectivity
Real-time payment infrastructure is reducing transaction friction across ASEAN markets.

QR Code Interoperability
Linked national QR systems are supporting seamless consumer and merchant transactions across borders.

SG–ID TH–MY SG–MY

Project Nexus
A regional instant-payment network can become an important foundation for faster trade settlement and digital commerce.

Regional Payment Connectivity
ASEAN central banks building a seamless payment ecosystem.

ASEAN's digital economy is moving from rapid adoption to monetization, creating stronger demand for integrated fulfilment, cross-border logistics, digital payments and real-time supply chain visibility.

Source: Google–Bain e-Conomy SEA 2024; BIS Project Nexus; ASEAN RPC Initiative

TREND 07 RISING MIDDLE CLASS

Rising Middle-Class Demand Reshape ASEAN Cargo Flows

415M

Middle-Class Consumers by 2030

As incomes rise across ASEAN, consumption is moving beyond basic goods toward higher-value, faster-moving and more service-sensitive product categories.

Projected ASEAN middle-class consumers, 2030

The Consumer Spending Journey *incomes climb the value chain*

01 **Premiumization**

02 **Healthcare**

03 **Education**

04 **Travel**

05 **Digital Commerce**

06 **Financial Services**

Containerized Imports Will Increase
Rising consumer demand will support higher flows of retail goods, FMCG, electronics and lifestyle products.

Cold Chain Will Become More Strategic
Healthcare, fresh food, premium grocery and temperature-sensitive products need stronger regional cold chain networks.

Fulfilment Networks Closer to Consumers
Urban demand growth will drive investment in micro-fulfilment, bonded facilities and regional distribution centres.

Service Quality Will Matter More
Customers will expect faster delivery, real-time visibility, lower damage rates and reliable cross-border logistics performance.

Source: HSBC, World Data Lab, Mastercard

TREND 08 ENERGY TRANSITION & RESOURCE LOGISTICS

Energy Transition Creates New Cargo and Infrastructure Needs

ENERGY DEMAND

25%

of global energy demand growth

- **Grid Modernization** upgrading networks for electrified demand
- **Renewable Deployment** scaling solar, wind & storage capacity

CRITICAL MINERALS

54%

of global nickel production

- **Battery Supply Chains** midstream processing & cell production
- **EV Ecosystem Growth** vehicles, charging & component clusters

From Resource to Clean-Tech Supply Chain

Nickel and Critical Minerals

Indonesia and other resource-rich ASEAN markets will drive bulk and breakbulk movements linked to mining, processing and export supply chains.

Battery Materials

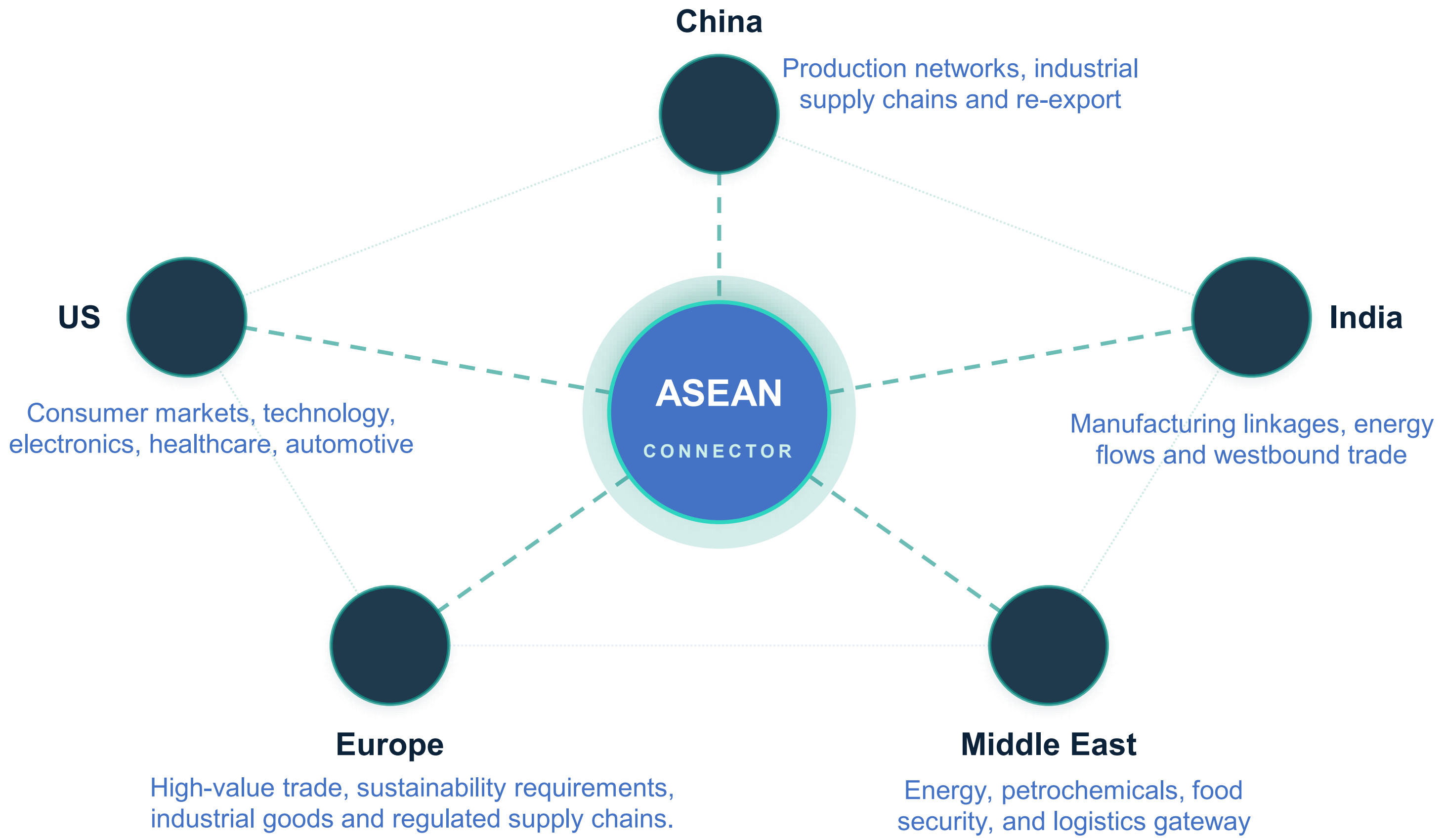
Growth in refining, cathode, cell and pack production will require safer, more reliable industrial logistics and dangerous goods handling.

Electric Vehicles & Renewable Energy

EV production will create demand for automotive logistics, while energy storage systems will increase project cargo and heavy-lift logistics requirements

Source: IEA, USGS

ASEAN's Strategic Optionality With Stronger Connectivity



Diversified Supply Chains
Multiple sourcing routes across partners.

Multiple Trade Routes
Ports and logistics corridors provide optional access

Regional Integration
Stronger intra-ASEAN connectivity allows companies to distribute production and sourcing

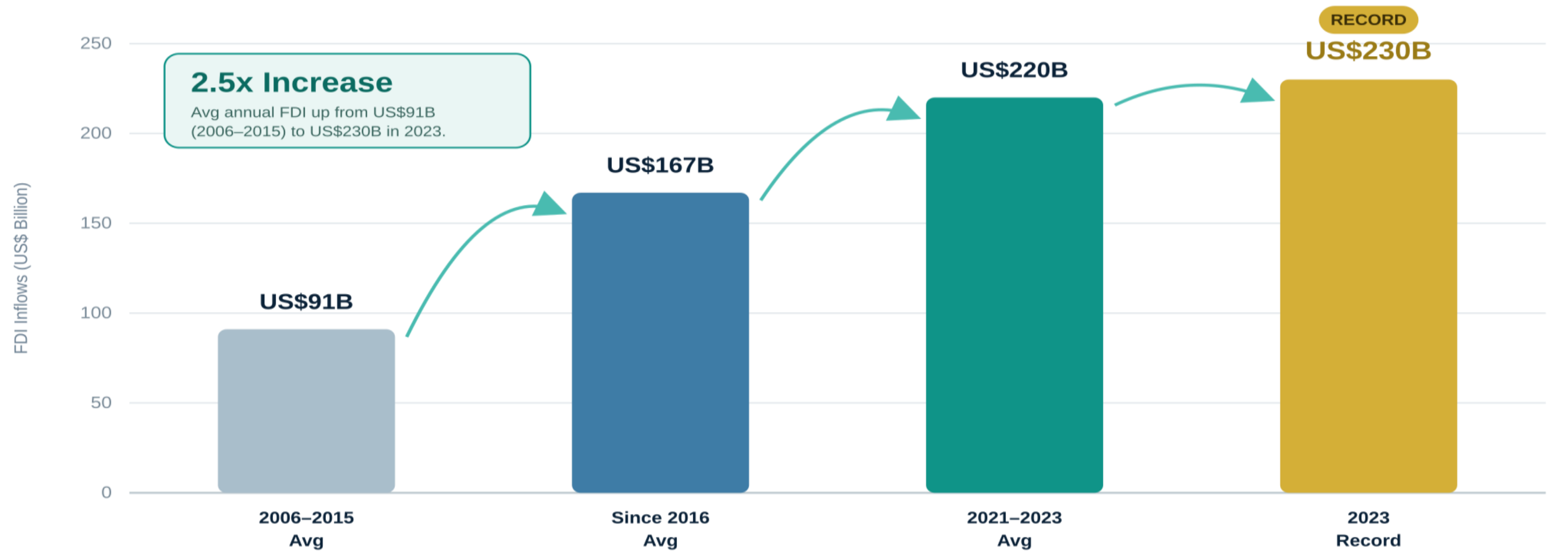
Resilience Building
More connected ASEAN network can absorb disruptions

***ASEAN's position as a global trade connector* will translate into competitive advantage if ports, corridors, customs systems and multimodal logistics networks are integrated**

Source: UNCTAD

FDI Momentum Points to Investable Logistics Themes

ASEAN has transitioned from an emerging investment destination to a structural global investment hub.



US$230B

Record FDI Inflows

(2023)

US$220B

Annual Average FDI

(2021–2023)

ASEAN has moved beyond being a cyclical investment destination. It is becoming a structural investment hub supported by manufacturing diversification, digital growth, consumer expansion, energy transition, and supply chain reconfiguration.

Source: UNCTAD World Investment Report; ASEAN Investment Report

CLOSING WHAT THIS MEANS FOR YOU

ASEAN’s Next Growth Advantage Will Be Built Through Connected Trade Ecosystems

*Ten trends, condensed into **four strategic imperatives**.*

01

Build ASEAN-Wide Footprints

Move from country-by-country operations to integrated regional networks across ports, industrial zones, inland hubs and border corridors.

02

Strengthen Hinterland and Cross-Border Connectivity

Improve port-to-plant links, dry ports, rail, barge, trucking corridors and customs coordination to support intra-ASEAN trade.

03

Digitize Regional Trade Flows

Use port community systems, e-documentation, customs integration, control towers and visibility platforms to reduce friction and improve reliability.

04

Invest in Green and Resilient Logistics Infrastructure

Prioritize low-carbon ports, cold chain, multimodal corridors, energy-transition logistics, and climate-resilient assets.

ASEAN is no longer only a market to serve; it is becoming a regional trade platform to build, connect, and invest in.

Source: JETRO, UNCTAD, BIS, IEA, Google–Bain, McKinsey

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