

*EXECUTIVE SUMMARY*

# Virtual Manufacturing in Indonesia

Opportunities for Australian Businesses

November 2023

# Acknowledgement

This report has been prepared by Katalis in partnership with:





# Preface



The global green-energy transformation presents a once in a century opportunity to rethink the way we approach energy generation, transport and manufacturing. Across southeast Asia, the electric mobility market is rapidly changing in response to the increased market demand for electric products of all persuasions, from electric skateboards to motorcycles and passenger cars.

Already a core manufacturing hub for global automotive giants and with the largest motorcycle fleet in ASEAN, Indonesia offers an attractive market for Australian electric mobility businesses seeking offshore manufacturing opportunities.

At the same time, there are a growing number of innovative Australian enterprises with manufacturing aspirations that may be interested to engage with Indonesian manufacturers, for prototyping, scale up or component supply.

In the context of the Indonesia-Australia Comprehensive Economic Partnership Agreement, our mandate is to support closer trade and investment between Indonesia and Australia. Given the size of the value pool for personal transport, Katalis is investigating the potential for a virtual manufacturing partnership with a focus on electric mobility.

Think of the possibility of innovative Australian design capabilities meeting Indonesian competitive, cost-effective, offshore manufacturing.

“Virtual Manufacturing in Indonesia: Opportunities for Australian Businesses” is a brief exploration into the opportunities for Australian and Indonesian companies to partner in this space and we trust that you will find the contents of this report thought-provoking and informative.

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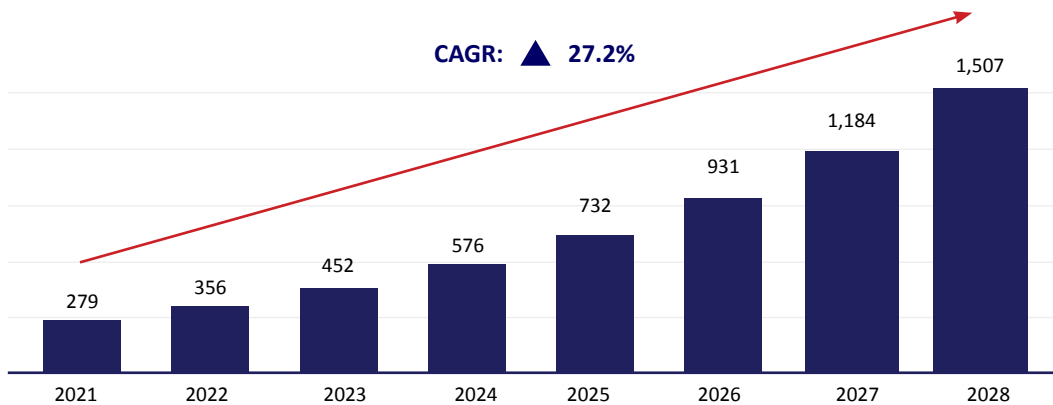


# Executive Summary

## The Electric Mobility Market is Growing and Indonesia is Ready

The global electric mobility market is surging. A shift towards renewable energies by governments around the world, the rise of electric mobility and falling battery costs, presents a prime opportunity for Australian businesses to emerge and expand within the sector.

**Figure ES 1. Global Electric Mobility Market Share**  
2021- 2028, billion, US \$



Source: Fortune Business Insights Electric Mobility Report 2022

Indonesian manufacturing provides:



### Reduced Time-to-Market

Indonesian manufacturing enables rapid prototyping and testing, reducing the time needed to bring new products to market, keeping Australian businesses ahead of competitors.



### Reduced Capital Investment

Indonesian manufacturing reduces the need for heavy capital investment in physical infrastructure, allowing Australian businesses to allocate resources more efficiently for research, development, and expansion.



### Cooperative Trade Agreements

Indonesia not only provides Australian companies with a strategic manufacturing location due to its proximity, but also boasts corporate-friendly trade agreements between the IA-CEPA and the ASEAN FTA<sup>1</sup>.



<sup>1</sup> Australian Government Department of Foreign Affairs and Trade, Indonesia-Australia Comprehensive Economic Partnership Agreement: Outcomes. Available at: <https://www.dfat.gov.au/trade/agreements/not-yet-in-force/iacepa/ia-cepa-key-outcomes-for-australia> (Accessed: 1 October 2023)

# Why Should You Consider Manufacturing in Indonesia?

Indonesia is known for its automotive manufacturing capability, with global giants such as Toyota, Honda, Nissan, and Hyundai selecting Indonesia as a manufacturing hub. This validates the desirability of the Indonesian market for Australian electric mobility businesses seeking offshore manufacturing opportunities.



## Low Labour Costs

Indonesia offers a cost-effective labour force compared to some Southeast Asian countries, providing experienced workers at competitive rates<sup>2</sup>. This cost efficiency can significantly reduce production expenses for Australian businesses and creates a more competitive environment for Indonesian manufacturers compared to Southeast Asian neighbours.



## Government Support for Manufacturing

The Indonesian government is committed to continuing to expand the manufacturing sector through a combination of government investment, tax incentives, and favourable trade agreements with partners like Australia<sup>3</sup>.



## Experienced & Growing Labour Force

Indonesia possesses a growing pool of engineers and technicians in the manufacturing sector. Indonesian manufacturers also have an abundance of experience within the automotive industry, having worked with market leaders in vehicle production e.g., Toyota and Nissan<sup>4</sup>.



## Capacity to Scale Production

Australian businesses can harness Indonesian manufacturing and assembly capabilities and efficiently scale production- valuable for those looking to create prototypes or build a greater market footprint with higher output of mobility vehicle<sup>5</sup>.



## Expanding Market & Infrastructure

Indonesia is actively investing in infrastructure development, including transportation networks and ports. This infrastructure development can streamline the supply chain, reduce logistics costs, and ensure efficient product distribution. Indonesia also aims to grow their advanced manufacturing and technological capabilities through Industry 4.0 objectives<sup>6</sup>.



## Strategic Location

Indonesia's strategic location in Southeast Asia provides closer access to markets in the region. Australian businesses can tap into growing demand for electric mobility solutions across the region with efficient distribution and opportunities for market expansion.

2 Trading Economics, Australia Average Weekly Wages in Manufacturing. Available at: <https://tradingeconomics.com/australia/wages-in-manufacturing> (Accessed: 1 October 2023)

3 Asialink Business, Manufacturing in Indonesia. Available at: <https://asialinkbusiness.com.au/indonesia/business-practicalities-in-indonesia/manufacturing-in-indonesia?doNothing=1> (Accessed: 20 October 2023)

4 Indonesia Investments, Automotive Manufacturing Industry Indonesia. Available at: <https://www.indonesia-investments.com/business/industries-sectors/automotive-industry/item6047> (Accessed: 1 October 2023)

5 GovDelivery – Indonesia 4.0 Objectives, Indonesia 4.0: Advanced Manufacturing Opportunities. Available at: [https://content.govdelivery.com/attachments/USITATRADE/2022/04/06/file\\_attachments/2125144/Market%20Intelligence\\_Indonesia%204.0%20-%20Advanced%20Manufacturing%20Opportunities.pdf](https://content.govdelivery.com/attachments/USITATRADE/2022/04/06/file_attachments/2125144/Market%20Intelligence_Indonesia%204.0%20-%20Advanced%20Manufacturing%20Opportunities.pdf) (Accessed: 10 October 2023)

6 Asialink Business, Manufacturing in Indonesia. Available at: <https://asialinkbusiness.com.au/indonesia/business-practicalities-in-indonesia/manufacturing-in-indonesia?doNothing=1> (Accessed: 20 October 2023)

# Electric Mobility Manufacturing Opportunities

## What Opportunities Exist For Australian Businesses?

Manufacturing can help Australian businesses translate design concepts into reality. By considering Indonesia as an offshore manufacturing destination, Australian businesses can capitalise on cost effectiveness and opportunities to scale.

### Startup Company Prototyping

Australian startups can work with Indonesian manufacturers to create a more cost effective prototype. Manufacturing small quantities of vehicle components and their assembly can easily be supported by Indonesian manufacturing partners quickly and affordably.

### Part-Component Manufacturing

Work with Indonesian suppliers to manufacture mobility vehicle component parts. Partnering with local Indonesian companies to produce essential components including chassis's, batteries, power inverters, traction motors, transmissions and other components is favourable in a country known for the fast assembly of products.

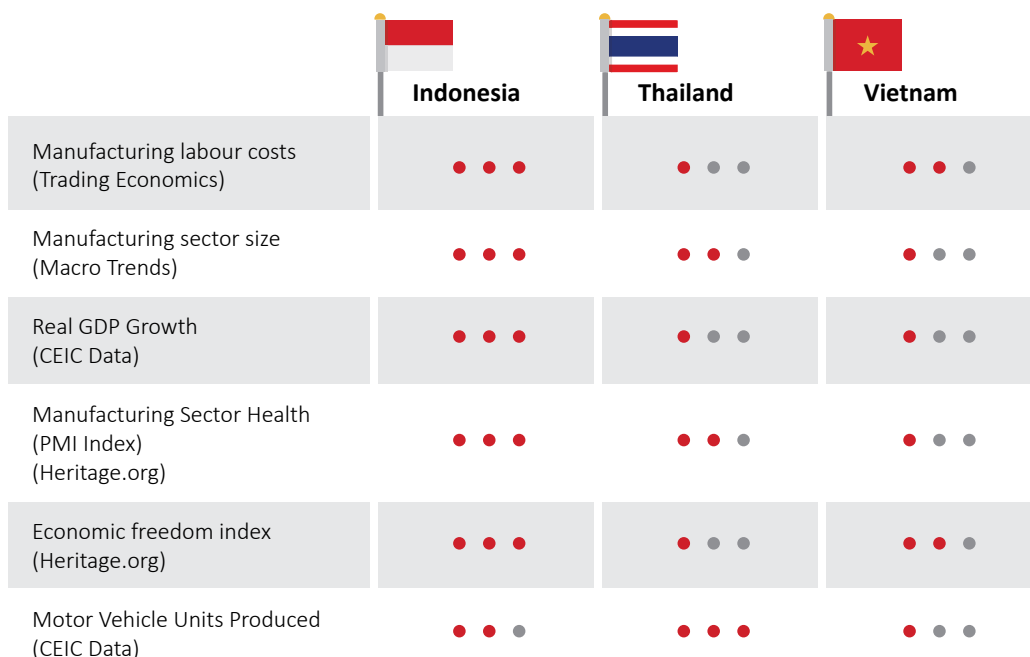
### Scale-Up Production

Australian companies wanting to scale their production as the electric mobility market grows, and expands beyond electric vehicles. For example, a growing Australian company that wants to increase their production from 50 to 100 units could see this achieved more cost-effectively due to lower input costs than those in Australia.

## How does Indonesia Compare for Manufacturing?

Indonesia emerges as a top choice for diversifying supply chains, outperforming some neighbouring countries within the ASEAN region:

**Figure ES 2. Comparative Analysis of Manufacturing Capabilities in Southeast Asia**



IA-CEPA ECP Katalis (Katalis) is a unique, five-year (2020-25) government-backed business development program unlocking the vast potential of economic partnership between Australia and Indonesia. Katalis was established under the Indonesia-Australia Comprehensive Economic Partnership Agreement Economic Cooperation Program (IA-CEPA ECP). The program complements other Australian development programs with a commercially oriented, bilateral approach and places gender equality and social inclusion at the centre of everything we do.

IA-CEPA ECP Katalis is supported by the governments of Australia and Indonesia under IA-CEPA.



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