

# Battery Innovation System of Indonesia



## National Ecosystem

### POLITICAL ORGANISATIONS

- Ministry of Energy and Mineral Resources (MEMR)
- Ministry of Education, Culture, Research and Technology (MOECRT)
- Indonesia Endowment Fund for Education (LPDP)
- Directorate General of Highways of the Ministry of PUPR

### INDUSTRY ASSOCIATIONS

- Indonesian Motor Association (IMI) West Java

### RESEARCH ORGANISATIONS

- The Indonesian Science Fund (DIPF)
- National Research and Innovation Agency (BRIN)
- National Battery Research Institute (NBRI)
- Telkom University

### COMPANIES

- Antam (Mining)
- Indonesia Battery Corporation (Antam, Inalum, Pertamina, PLN)
- Mining Industry Indonesia (Mining)
- Vale Indonesia (Mining)

## Strategic Documents



## Policy Goals

- 2025**
  - **Production:** Plans to produce 400,000 EVs
  - **Transition:** Reach 2.5 million electric vehicle users
- 2030**
  - **Production:** Plans to produce 600,000 EVs, as well as 140 GWh battery capacity per year
  - **Growth:** Become a top 10 global economy
  - **Export:** Raise the industry net export rate to 10% of GDP
  - **Productivity:** Achieve labour productivity that is twice the value of labour costs
  - **Investing:** Allocate 2% of GDP to R&D, technology and innovation
  - **Transition:** Complete EV transition for 13 million motorcycles
- 2035**
  - **Production:** Plans to produce 1,000,000 EVs
- 2060**
  - **Carbon neutrality**

## Country Specific Information

As one of the fastest growing economies and the world's largest producer of nickel (a key component in lithium-ion batteries), Indonesia has huge potential to become one of the leading forces in the EV and battery industries of the future. As a result, the government is setting ambitious targets to be achieved by enacting regulations that will attract investment in the sector to create a domestic EV market. Leveraging of the country's vast natural resources, investment in R&D, transition of public transport, as well as tax incentives for companies investing in Indonesia are key drivers of the economic transition. Standardisation of batteries

and EVs is another current issue being pursued by the Indonesian government to make electric vehicles more accessible to the general public. International companies, mainly from China and South Korea, are already investing and setting up projects, further boosting Indonesia's ambitions to become a global top player in the EV industry.

## Research Priorities

Innovative and enhanced batteries for EVs from material design to battery system design + Li-ion cells + high-performance batteries, materials and production technology + reduction of GHG during the production process + recycling technology

## Funding Instruments

TIME	FUND	FOCUS	BUDGET
2020 - now (Tax incentives)	Tax incentives	Various tax incentives for companies to invest in the sector ranging from tax holiday of 100% of corporate income tax (CIT) to tax allowance and exemption from import tax.	No information on budget
2022 - now (Competitive Fund)	Competitive Fund	Promotes collaborative research between universities and the industry, in order to align the development of science and technology in higher education with the real needs of the business and industrial world.	\$ 83 million (Rp 1.2 trillion)
2022 - now (Matching Fund)	Matching Fund	Deploy a total of 10,000 electric buses in 169 Indian cities within ten years and to create the infrastructure, including charging technology, to operate the e-buses.	\$ 70 million (Rp 1 trillion)