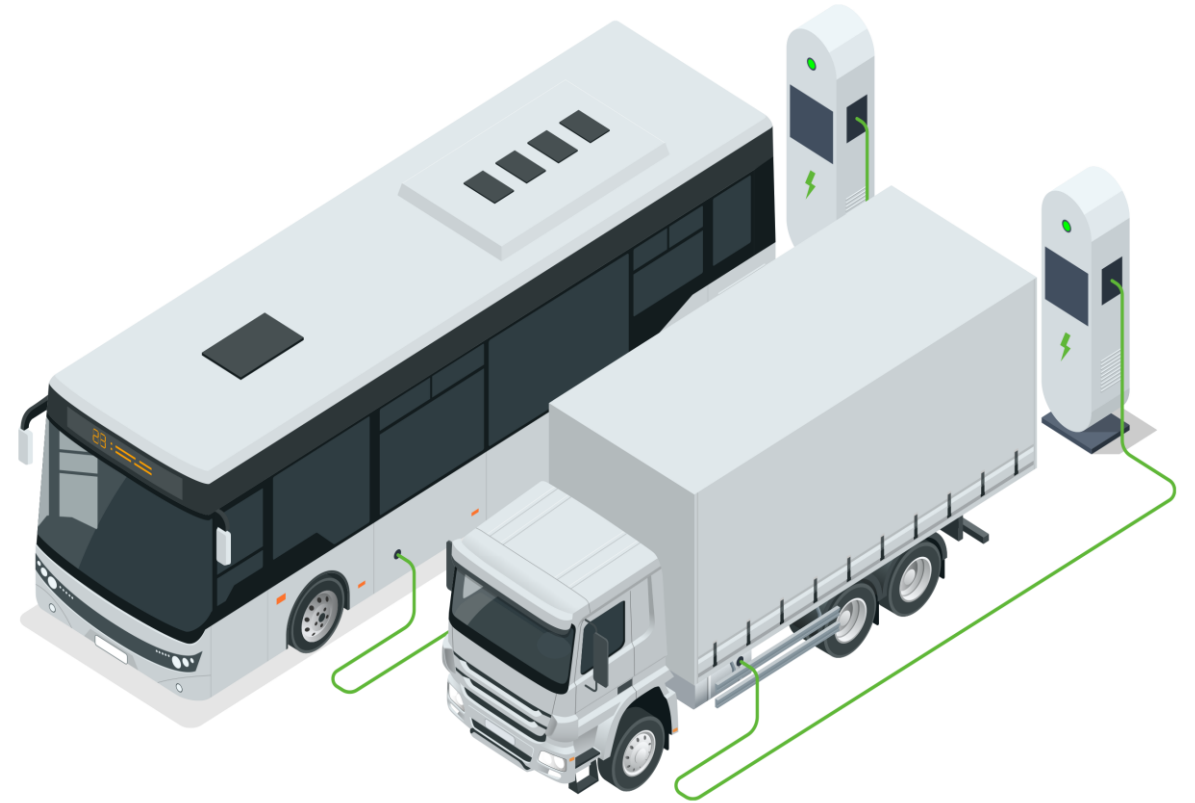


REPORT OVERVIEW

# Electrified Truck and Bus Powertrain (Asia Pacific) – June 2022



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# Powertrain Components – Asia Pacific

The information in this slide and the next slide outlines the content of the Interact Analysis report on “**Electrified Truck and Bus Powertrain Pricing and Architecture - APAC**”. This component report is limited to the on-road market (but components in off-road markets are covered in a separate report).

The report answers the following:

1. What is the market size (units, ASP and revenues) for key components in the powertrain including motors, batteries and inverters?
2. What is the price of key components such as motors, batteries, inverters, transmission and others?
3. How do prices vary by vehicle type and region?
4. How will prices in 2025 and 2030 compare to 2020?
5. Who are the leading suppliers of motors, batteries and fuel cells?
6. What is the average KW and KWH for each vehicle type, powertrain and region?
7. Which battery types will dominate in 2025 and 2030?
8. The Asia Pacific report presents market data for bus size (small, medium and large) but does *not* include a split between urban and intercity.
9. In the Asia Pacific report, the countries covered are China, India, Japan, South Korea and Rest of Asia Pacific, with a particularly strong focus on China, the largest market.

The Asia Pacific report was researched and written by two bilingual analysts based in China, Jan Zhang and Shirly Zhu. Our China analysts can obtain interviews in Asia Pacific more effectively than Western-based analysts. Our China team has previous experience in both transportation and batteries and so is well placed to carry out this research.

*“We chose Interact Analysis because of their existing studies on the field of electric commercial vehicles. They have a very motivated and qualified team that is very responsive and easy to work with. Even current circumstances were immediately included in the data sets and the analysis was adjusted accordingly. Their extensive data sets and their deep understanding of the market supports us in our strategic decisions”.*

– **BMWAG**



# Powertrain Components – APAC

## BY REGION (of vehicle production)

- Asia Pacific
  - China
  - Rest of Asia Pacific Countries

This diagram shows the dimensions of the forecast data. Because the data is formed in 4 dimensions, we are providing 1000 individual forecasts in total .

### Competitive Environment

- Market Shares (battery Pack, motor, fuel cell system, by 2021 unit installation)
- Profiles

### Measurement

- All data shown here will be presented as US dollar revenues, shipments and average selling prices
- Average KW/KWH will be shown for fuel cells, motors and batteries

## BY VEHICLE TYPE

- Trucks
  - Light Duty (<6.4t)
  - Medium Duty (6.4t- 15.9t)
  - Heavy Duty (16t+)
- Buses
  - Small Size (≤ 7 meters)
  - Medium Size (7-10 meters)
  - Large Size (> 10 meters)

## Powertrain

- Battery Electric
- Fuel-Cell
- Hybrid

## Components

- |  |   |
|--|---|
| ▪ Battery  | ▪ Motor   |
| ▪ Chemistry <ul style="list-style-type: none"> <li>▪ NMC</li> <li>▪ LFP</li> <li>▪ LTO</li> <li>▪ Other</li> </ul> | <ul style="list-style-type: none"> <li>▪ Permanent Magnet</li> <li>▪ Induction</li> </ul>   |
| ▪ Package <ul style="list-style-type: none"> <li>▪ Cylindrical</li> <li>▪ Prismatic</li> <li>▪ Pouch</li> </ul>    | <ul style="list-style-type: none"> <li>▪ Transmission</li> <li>▪ eAxle</li> <li>▪ Invertor</li> <li>▪ DC-DC convertor</li> <li>▪ Battery Thermal Management system</li> <li>▪ Battery Management System (BMS)</li> <li>▪ Fuel Cell System</li> <li>▪ Hydrogen Tank</li> </ul> |

# Example Forecast Data (component report)

Example Table  
Asia Pacific Powertrain Components Market Revenues by Region  
(\$ US Thousand)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	21-'30 SUM
Battery Packs	-	-	-	-	-	-	-	-	-	-	-	-
Battery Management Systems (BMS)	-	-	-	-	-	-	-	-	-	-	-	-
Batttery Thermal Management Systems	-	-	-	-	-	-	-	-	-	-	-	-
Motors	-	-	-	-	-	-	-	-	-	-	-	-
Inverters	-	-	-	-	-	-	-	-	-	-	-	-
DC-DC Converters	-	-	-	-	-	-	-	-	-	-	-	-
eAxles	-	-	-	-	-	-	-	-	-	-	-	-
Transmissions	-	-	-	-	-	-	-	-	-	-	-	-
Fuel Cell Systems	-	-	-	-	-	-	-	-	-	-	-	-
Hydrogen Tanks	-	-	-	-	-	-	-	-	-	-	-	-
<b>China Total</b>	-	-	-	-	-	-	-	-	-	-	-	-
Battery Packs	-	-	-	-	-	-	-	-	-	-	-	-
Battery Management Systems (BMS)	-	-	-	-	-	-	-	-	-	-	-	-
Batttery Thermal Management Systems	-	-	-	-	-	-	-	-	-	-	-	-
Motors	-	-	-	-	-	-	-	-	-	-	-	-
Inverters	-	-	-	-	-	-	-	-	-	-	-	-
DC-DC Converters	-	-	-	-	-	-	-	-	-	-	-	-
eAxles	-	-	-	-	-	-	-	-	-	-	-	-
Transmissions	-	-	-	-	-	-	-	-	-	-	-	-
Fuel Cell Systems	-	-	-	-	-	-	-	-	-	-	-	-
Hydrogen Tanks	-	-	-	-	-	-	-	-	-	-	-	-
<b>Rest of Asia Pacific Total</b>	-	-	-	-	-	-	-	-	-	-	-	-

- Prices for each component are available in the pivot table for each vehicle type, powertrain and region.
- In addition to an XLS database, the report also includes PPT charts analyzing and interpreting the results.
- A customizable pivot table featuring all data is also included within the deliverables.

# Hybrid and Electric Truck and Bus Bundle

- The bundle consists of three Interact Analysis reports each providing insight, analysis, data and forecasts.
- Purchasing the bundle means purchasing all three reports. It is also possible to buy only one report or two reports.

The three reports are:

- **Hybrid and Electric Trucks and Buses – May 2022**
- **Electrified Truck and Bus Powertrain Components – EMEA and Americas – coming soon**
- **Electrified Truck And Bus Powertrain Components – Asia Pacific**



Picture courtesy of Bosch

# Hybrid and Electric Trucks and Buses – Global

The information in this slide and the next slide outlines the scope and content of the 3<sup>rd</sup> edition of the Interact Analysis report “**Hybrid and Electric Trucks and Buses**”. This vehicle report is limited to the on-road market (but off-road markets are covered in separate reports).

The report will answer the following:

1. How does the demand for different powertrain architectures vary across different regions and vehicles types?
2. How much will legislation and subsidies affect the market?
3. What is the hybrid and electric strategy of truck and bus OEMs?
4. Who are the key companies in the trucking and bus industry?
5. What is the current size of the hybrid and electric truck and bus market, and how will this change?
6. Which countries are moving fastest towards hybrid and electric trucks and buses?
7. How is the bus industry adapting to meet the requirements for low emission zones?

*“We purchased several market studies for electrification in the past, but Interact Analysis provided the granularity that we, as Tier 1s, need to make an educated decision. Interact Analysis spends time speaking to the stakeholders of the EV industry which provides in depth knowledge of what is coming in the future. A good thorough study at an affordable price with access to the people behind the data anytime.” –*

***Dana Incorporated***

# Single Report or Bundle Options

## SINGLE REPORT

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\$11,250 / €9,750 / £8,250 / CNY 74,000  
One-time charge, unlimited users

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- ✓ Any one report
- ✓ PDF report and Excel file
- ✓ Analyst support time

## Bundle (All 3 reports)

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**Contact us for pricing**  
One-time charge, unlimited users

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- ✓ All three reports
- ✓ PDF report and Excel file
- ✓ Power BI Dashboard
- ✓ Analyst support time

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3. We ask clients to please make payments within 30 days of receiving the invoice.
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5. Our deliverables will be a combination of PDF report, Excel tables & data.
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7. We reserve the right to make changes to the content of our reports and republish if we deem appropriate.

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# How can this report help you?

The hybrid and electric truck and bus industry is lacking credible and detailed component market data. If you need to get accurate and up-to-date market sizes, prices and volumes for components such as motors, batteries and inverters in hybrid and electric truck and bus technology, then this report is the answer.

- The report includes well-modelled forecasts with clear and transparent assumptions for all of the market segments shown on page 4.
- Supplier [market shares](#) for motion controls by product type for Asia Pacific.
- Forecasts for hybrid and electric technology adoption in Asia Pacific extends to 2030.
- It includes detailed discussions of the key issues/trends impacting the hybrid/electric trucking and bus market, based on >35 hours of primary interviews with key industry stakeholders including motor, battery and inverter suppliers.
- An analysis of the hybrid and electric truck and bus supplier landscape is included to help you understand your competitors, suppliers and potential partners more accurately.

## How Is this Report Different?

- Typically clients use our research reports to assist with some of the following:
  - Forming & refining internal business plans
  - Benchmarking their sales team's performance
  - Providing third-party data to investors and shareholders
  - Identifying which new markets to enter & to understand the opportunities & barriers they will face, & also understanding product preferences
  - Providing quotes & data to support press releases & external presentation
    - For benchmarking market share vs. competitors
  - For understanding new emerging competition
  - To get a view of the industry consensus on key topics & to sanity check this versus internal assumptions
  - To understand new emerging product trends & how this will impact their business
  - To understand how the market product mix will change based on demand

# Our standout approach



## 1. Intelligent Insights

- Market share, revenues and pricing
- Historical data and credible forecasts
- Company analysis, competitive strategy and positioning
- Analysis of technology developments
- Timely and relevant industry insights



## 2. Meticulous Methodology

- Primary research: > 30 hours interviews
- Real company data, maintained confidentially
- Proprietary models and forecast techniques
- Experienced and qualified research team
- Reputation built on uncompromising quality



## 3. Dynamic Delivery

- PPT & Excel reports
- Power BI Dashboards
- 24/7 access from our client area
- Post-delivery advice and support
- Talk to our analysts; we're here to help

## Who we are

With over 200 years of combined experience in technology research, we are recognized as the intelligence authority for the entire automation value chain, from the technology used to automate factory production, through warehousing and robotics, to the transportation of the finished goods..

We speak directly with the users, suppliers and thought leaders in each competitive environment, bringing entirely new data into play.

We go beyond the data and provide deep analysis on opportunities for technology-driven growth.

### LEADERSHIP TEAM

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## What makes us different?

# 200+

### DEEP ROOTS

200+ years combined experience in technology research

# 200+

### GLOBAL FOOTPRINT

200+ global clients, in all major markets from Europe to Asia and the US

# 1000+

### PRIMARY-FIRST RESEARCH

1000+ interviews each year, bringing entirely new insights into play

# 100m+

### PENETRATING INSIGHTS

100 million+ data points analyzed to find needle-moving insights



### SUBJECT MATTER EXPERTS

For technologies right across the automation value chain



### COLLABORATION

We work in partnership to develop tailor-made solutions for our clients

# Contact us

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