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**Power Systems Research (PSR)** is a world leader in providing power equipment information, whether it's pure data, analysis, forecasting or specific business intelligence. This product information ranges from IC engines to battery-electric and hybrid powertrain technologies. PSR has been providing world class business and market intelligence to industry leaders for more than 40 years. How can we help you? For details, call **+1 651.905.8400** or email [info@powersys.com](mailto:info@powersys.com). [www.powersys.com](http://www.powersys.com)

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## DATAPOINT: *Global Outboard Motors*

### 618,800

*By Carol Turner, Senior Analyst, Global Operations*

618,800 units is the estimate by Power Systems Research of the number of outboard motors to be produced globally in the US, Brazil, China, Japan and Thailand during 2021.

This information comes from industry interviews and from two proprietary databases maintained by Power Systems Research: **EnginLink™**, which provides information on engines, and **OE Link™**, a database of equipment manufacturers.

**Market Share:** With 48.5% of total units produced, Yamaha leads in production of Outboard Motors. In second position is Tohatsu (85,611 units) with 15%. Third is Mercury Marine with combined plant totals of 83,049 units or about 15%.

**Trends:** From 2019-2020 production of Outboard Engines, from manufacturers noted, decreased 15% from 2019 to 2020. However, production is expected to gain 7.5% this year.

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## Datapoint

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Despite Covid-19 related factors, boat sales soared when stay-at-home workers increase. However, manufacturing dropped mostly due to BRP cancelling production of Evinrude motors in May of 2020. Yamaha reported unit sales of 279,000 in 2020, a 10% drop from 310,000 in 2019. Mercury Marine discontinued a variety of non-popular Mariner & Mercury models especially 2-stroke models.

Outboard motor production peaked in 2018, mostly the result of demand for new models along with the soaring economy.

Outboard motors tend to last decades before purchasing the latest models. Many new motors are more powerfully while being lighter in weight and more fuel efficient. Boating is an extremely popular recreational activity worldwide and enthusiasts want a powerful motor that is also versatile.

The growth in recreational boating over the past several years has been achieved in large part due to corresponding advances in outboard power. Yamaha Motor Corporation says there has been an “unprecedented demand” for 2.8L, 4.2L v6 & 5.3L V8 models.

Expect production of outboard engines to gain up to 15% by 2025. **PSR**

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## North American Report

### Ford, Argo AI, and Walmart Plan Autonomous Vehicle Delivery Service in Three U.S. Cities



*John  
Krzesicki*

*By John Krzesicki, Business Development Manager*

The way we deliver products from point A to point B is changing. This transformation is creating new partnerships, with implications affecting more than just the transportation industry.

Our team at Power Systems Research provides market intelligence to companies working in and around transportation and mobility functions.

Ford Motor Company, Argo AI, and Walmart are working together to launch an autonomous vehicle delivery service in Miami, Austin, Texas, and Washington, D.C. — Walmart’s first multi-city autonomous delivery collaboration in the U.S. The last-mile delivery service will use Ford self-driving test vehicles equipped with the Argo AI Self-Driving System to deliver Walmart orders.

The collaboration brings together a self-driving technology provider with an automotive manufacturer able to integrate that technology with vehicles at scale, plus the world’s largest retailer. This combination builds on Walmart’s leadership in adopting emerging technologies to meet growing consumer expectations and enhance the last-mile delivery process. The multi-city service will enable Walmart

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## North America Report

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*Briggs & Stratton has acquired SimpliPhi Power, a battery manufacturer whose technology can be found in many microgrids.*

customers to place groceries and other popular items online for autonomous door-to-door delivery directly to customers' homes.

The commercial service will be available to Walmart customers within defined service areas of the three markets. It will expand over time, with initial integration testing slated to begin later this year. As consumer expectations continue to shift to next-day or same-day delivery — especially in the urban core with a higher concentration of deliveries — this collaboration will drive key learnings in how autonomous technology can enhance customer experiences while optimizing logistics and operations.

In addition to testing self-driving technology in Pittsburgh, Detroit, and Palo Alto, Calif., Argo and Ford have been operating in Miami and Washington, D.C., since 2018 and in Austin since 2019, to build autonomous ride-hailing and delivery services and establish the necessary real estate footprint and commercial fleet management capabilities, including fueling, servicing, and cleaning of self-driving vehicles, to support the customer and keep fleets running. Walmart previously tested with Ford in Miami in 2018. **PSR**

**Source:** Ford Motor Co.



*Michael  
Aistrup*

## Lawn & Garden Industry Intelligence

*By Michael Aistrup, Senior Analyst*

### **Briggs & Stratton Acquires SimpliPhi Power**

Briggs & Stratton has acquired SimpliPhi Power, a battery manufacturer whose technology can be found in many microgrids. Briggs & Stratton plans to speed its growth into the energy storage market through the acquisition.

SimpliPhi manufactures ferrous phosphate batteries, management technology systems and plug-and-play power packs for residential, commercial and industrial customers.

SimpliPhi Power started in the movie business, making battery packs and lights. The company found that using lithium phosphate (LFP) technology battery systems was safer than other systems. SimpliPhi Power also identified a need to make the battery components in different sizes.

Under the acquisition, SimpliPhi will continue to produce and offer its own products through existing distribution channels and partnerships as well as working through Briggs & Stratton's distribution.

### **California May Ban Gas-Powered Lawn Mowers and Leaf Blowers**

California may soon ban the sale of gas-powered leaf blowers and lawn mowers under a bill the Legislature passed and sent to Gov. Newsom.

Assembly Bill 1346 would direct the California Air Resources Board to phase out the sale of “small off-road engines” by 2024, or as soon as the board finds feasible, whichever is later.

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## North America Report

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The bill's author, Assemblyman Marc Berman, D-Menlo Park, tweeted that the state will spend \$30 million "to help gardeners transition to cleaner, greener equipment."

Berman's bill comes as part of a state effort to cut down on air pollution. One hour of gas-powered leaf blower use is equivalent in emissions to a vehicle driving 1,100 miles from Los Angeles to Denver, according to the Air Resources Board.

The bill was opposed by the Outdoor Power Equipment Institute, which said in a statement that the bill would "pose numerous technology feasibility, economic, and implementation challenges for industry stakeholders. Collectively, these challenges are insurmountable and will result in significant hardships for manufacturers, retailers and end-users, culminating in an early market shortfall of products with high consumer need and demand."

### Stanley Black & Decker To Purchase Cub Cadet Maker and Excel

Stanley Black & Decker has announced plans to buy the remaining 80% of MTD Holdings Inc.'s stock for \$1.6 billion in cash after previously buying a 20% stake in 2019.

In addition to lawn tractors such as the Cub Cadet, MTD also makes push lawn mowers, snow blowers, robotic lawn mowers, outdoor power equipment and garden tools.

MTD employs 7,500 people and generated more than \$2.5 billion in revenue in the past 12 months. Stanley Black & Decker has 56,000 employees in 60 countries around the world. The tool and storage manufacturing company posted \$14.5 billion in revenue in 2020.

The companies expects the deal to close this year and anticipates the combined company will save \$100 million in cumulative annual costs by 2025.

Stanley Black & Decker also announced that it has entered into a definitive agreement to acquire Excel Industries for \$375 million in cash.

Excel is a designer and manufacturer of premium commercial and residential turf-care equipment under the distinct brands of Hustler Turf Equipment (Hustler) and BigDog Mower Co. (BigDog). With over \$375 million of revenue forecasted in 2021, Excel serves approximately 1,400 active independent equipment dealer outlets that stock, sell and service Hustler and BigDog products in the United States and Canada. The Company is located in Hesston, Kan., and has approximately 600 employees.

### Segway's First Robotic Lawnmower Uses GPS To Stay in Your Yard

Since building a brand on self-balancing personal transportation devices, Segway has expanded its consumer product range to include e-scooters, go-karts and now, autonomous mowers.

The Segway Navimow is like a Roomba for your lawn, except it's different than most other robotic vacuums and mowers currently sold in one key way. Reports

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## North America Report

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say that instead of requiring installation of a physical or a virtual boundary, the device uses GPS to stay on "precise position and systematic mowing patterns."

Users define the boundary and any no-go areas on a smartphone app, and the Navimow will maintain accuracy down to two centimeters. In the event of a weak GPS signal, the Navimow has sensors to keep it chugging along. The Navimow can move up a 45-degree incline. And because the motor is electric, it emits 54 db of noise—far less than a gas-powered lawn mower. **PSR**

## Europe Report

By *Emiliano Marzoli*, Manager, European Operations

### CNH Acquires Sampierana SPA



*Emiliano Marzoli*

CNH Industrial has purchased Sampierana S.p.A. an Italian construction equipment and components manufacturer. The deal totals €101.8 million and will allow CNH to control 100% of Sampierana within the next four years.

"This latest strategic acquisition will further accelerate the profitable growth of our construction equipment business. Sampierana's exceptional portfolio solidifies our presence in critical market segments and provides our dealers and

customers access to industry-leading products backed by our brand, distribution, and manufacturing experience," said Scott Wine, Chief Executive Officer of CNH Industrial.

Sampierana is based in Italy where it has its headquarters and production sites. It also operates a fully controlled subsidiary with production facilities in Kunshan, China.

**Source:** *CNH Industrial* ([Read The Article](#)) and **PSR OE Link™** database

**PSR Analysis:** After the recent reorganizations, CNH lost its mini and midi excavator European production base. With the acquisition of Sampierana, CNH re-established a strong footprint in the old continent and can benefit from Sampierana's existing range of equipment and components for construction machinery. This will help generate economies of scale for the other CNH production plants. CNH plans to offer acquired products to the North American market as well. **PSR**

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*Jacto is leader in technology for Agriculture for sprayers and it now is starting in the planter segment with the same approach. The forecast for sales and production is promising.*

## Brazil/South America Report

By *Fabio Ferraresi*, Director Business Development South America



*Fabio Ferraresi*

### Mercedes Announces BEV Bus for Brazil

Mercedes says it has committed an investment of US\$ 20 million for the launch of the eO500U, the first electric bus by the German OEM, the market leader in Brazil. Roberto Leoncini, Sales Director said that Mercedes opted for beginning the electrification of the MHV segment by the Bus products because it has higher impact on the population.

One of the key drivers for this launch is the new legislation for São Paulo city that aims to convert 50% of the fleet to electric by 2027. This means 7,000 electric buses will be sold by 2027. Sales forecast starts with 50 to 150 units by 2022.

**Source:** *Automotive Business* [Read The Article](#)

**PSR Analysis:** With new legislation, OEMs rush for e-bus chassis launch to keep market share. Meanwhile, BYD celebrates the opportunity to grow with the lack of competitors, but it needs an improved in business model and strategic aspects to grow.

### Jacto Announces Hybrid Self-Propelled Planter

Jacto has entered the planter segment with three products, Uniport 500, Lumina 400 and Meridia 200. Uniport is the first hybrid self-propelled planter in Brazil. It has a Diesel ICE working as an electric power generator and independent electric drives in the four wheels of the equipment. This design promises less fuel consumption, because of a better traction system and uniform planting speed, and consequent better uptime since it reduces stops for refueling.

**Source:** *Press Release / SAE Brazil Mobility Forum* [Read The Article](#)

**PSR Analysis:** Jacto is leader in technology for Agriculture for sprayers and it now is starting in the planter segment with the same approach. The forecast for sales and production is promising, since the price for the solution should allow a better TCO for farmers, who are known to be adopting technologies that reduce cost and improve uptime, two things that this planter promises.

### Eletra Converts Trucks and Buses to Electric in Brazil

Eletra started converting Trucks and Buses from 3.5 to 54 Tons for the range of 50km to 150km by replacing the actual Powertrain (ICE, Transmission, Axels,) and suspension with batteries, electric drive and new suspension. The main benefits for the approach is to provide 30% less cost than a new Electric Truck and shorten the timing to meet sustainability targets, since the retrofit is done quickly. Companies like Ambev (AB-Inbev) announced 102 trucks retrofitted with Eletra.

**Source:** *M&T* [Read The Article](#)

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## **Brazil/South America Report**

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*Volvo Trucks expects to start production of the new heavy-duty Volvo FH, Volvo FM and Volvo FMX trucks in Taiyuan for local customers in China late next year.*

**PSR Analysis:** Eletra vocation is to play in market niches and with the focus of OEMs as Mercedes, current partner of Eletra in trolley buses and EV adventures, shifts to internal production of Battery Electric MHV, Eletra finds new niches to keep playing. The retrofit has its benefits and certainly will bring important revenue for Eletra and its supply chain with volumes higher than the EV produced by Eletra so far. **PSR**

## **China Report**

*By Jack Hao, Senior Research Manager - China.*

### **Volvo To Produce Trucks in China in 2022**



*Jack  
Hao*

Volvo Trucks expects to start production of the new heavy-duty Volvo FH, Volvo FM and Volvo FMX trucks in Taiyuan for local customers in China late next year. Volvo Trucks has agreed to acquire a subsidiary of China's Jiangling Motors Co to produce trucks for the local market starting late next year. JMC Heavy Duty Vehicle Co, which includes a manufacturing site in Taiyuan, capital of North China's Shanxi province, will be purchased for \$120.4 million (780 million yuan), said the Swedish truck maker.

**Source:** *China Daily* [Read The Article](#)

**PSR Analysis:** JMC has done a lot of research on hydrogen fuel and has made good business progress. JMC plans to accelerate the development of new energy products such as light trucks, pickup trucks and light passenger vehicles, and to manufacture other cleaner products. It will not launch new energy heavy truck products.

For Volvo Trucks, the successful acquisition of Jiangling Heavy Truck will fully start its localization in China. By acquiring Jiangling Heavy Truck, which is 100% controlled by Jiangling Automobile, Volvo Truck will establish a wholly owned Volvo Truck production base in China to better serve China, the world's largest truck market.

The establishment of the local production base indicates that Volvo truck has taken an important step towards building a regional value chain in China. This value chain includes procurement, manufacturing, product development, sales and services.

From the perspective of product structure, with the continuous acceleration of the marketization process of new energy heavy truck, Volvo Truck has launched a full range of pure electric trucks in many markets around the world, and has accumulated rich market experience, which provides strong support for its follow-up in the new energy heavy truck market.

In 2020, the sales volume of Volvo trucks in China hit a growth rate of more than

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## China Report

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60%, which is growth record that other markets in the world do not have. The market share of Volvo trailer in the main market has been increasing and has reached more than 50%, but the market share of Volvo trailer in the Chinese market is less than 5%. All these factors have accelerated the progress of Volvo's settlement in China. **PSR**

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## Far East: Japan Report

By *Akihiro Komuro*, Research Analyst, Far East and Southeast Asia

### Toyota To Invest 1.5 trillion Yen in Auto Batteries



*Akihiro  
Komuro*

Toyota Motor Corporation has announced that it will invest 1.5 trillion yen in automotive batteries by 2030. Of this amount, 1 trillion yen will be used to increase the production capacity to 200 GWh, 33 times the current level. This is an increase of more than 10% over the previous target.

The company also announced that it will invest 500 billion yen in research and development, with the goal of reducing the cost of batteries per electric vehicle by more than half. As demand for electric vehicles is sure to grow, the battle for leadership among manufacturers will intensify.

Toyota's investment in batteries was 80 billion yen in the fiscal year ended March 31, 2021, and it is calculated to continue to exceed 100 billion yen per year until 2030. The total amount of capital investment is expected to be 1.35 trillion yen in the fiscal year ending March 2022, of which more than 10% will be allocated to batteries.

**Source: The Nikkei**

**PSR Analysis:** While batteries are said to determine the future of the automotive industry and international competition is intensifying, Japanese automakers have not made large-scale investments in the past. Northvolt is targeting a staggering 150 GWh per year increase in production capacity over the next decade, while CATL's 2019 shipments were 32.5 GWh, and the company plans to build new plants for 52 GWh in China and 14 GWh in Germany within the next two to three years.

Toyota's announcement is on a scale that is internationally competitive, given the size of the investment. Whether the battery production base will be in Japan or overseas is a very important point. Of course, batteries are heavy, so the cost of transporting them to the vehicle production site will be reflected in the vehicle price.

For automakers that cannot procure their own batteries or those of their own group, the only way to produce EVs is to purchase batteries from other companies or groups. Batteries procured from outside the company or group carry transportation

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## Far East Report

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*Toyota's battery investment, which was announced under the circumstances where this view is becoming common knowledge, is generally viewed favorably by the domestic auto industry, including other companies.*

costs and reduce profits. In addition, as long as the current seller-driven market structure continues, it will be difficult to meet delivery dates as desired.

Toyota's battery investment, which was announced under the circumstances where this view is becoming common knowledge, is generally viewed favorably by the domestic auto industry, including other companies.

It is still unclear how this investment will affect not only Toyota itself, but also the six automakers (Toyota, Daihatsu, Hino, Subaru, Mazda, and Suzuki) that are in partnership with Toyota, led by its subsidiaries Daihatsu and Hino. But in any case, as the shift to EVs continues, the procurability of batteries is quite important for manufacturers, and this investment by Toyota may be a catalyst for reversing the reputation of Toyota's stance on EVs, which has often been seen as reluctant compared to other companies. **PSR**

## 極東 > 日本レポート:

小室 明大 – 極東及び東南アジア リサーチアナリスト

### トヨタ、車載電池に1.5兆円投資へ コスト半減目標

トヨタ自動車は7日、車載電池に2030年までに1兆5千億円を投資すると発表した。このうち1兆円で生産能力を現在の33倍の200GWhに増やす。従来目標を1割強、上積みした。研究開発に5千億円を投じ、電動車1台当たりの電池コストを半分以下にする目標も示した。電動車の需要拡大が確実視されるなか、メーカーの主導権争いが激しくなる。

トヨタの2021年3月期の電池向け投資は800億円だった。今後は年1000億円超の水準を30年まで続ける計算だ。設備投資の総額は2022年3月期の見通しで1兆3500億円で、このうち1割強を電池に振り向ける。

生産能力を増やす拠点は明示しなかったが、中国や米国などでの投資を想定する。国内ではパナソニックとの共同出資会社プライムプラネットエナジー&ソリューションズ (PPES) などと生産能力を拡大する。電池のコスト削減に向けた開発では、レアメタル希少金属のコバルトやニッケルを使わない低価格の部材活用を目指す。製品寿命の延長や、車体に設置しやすい構造の開発にも取り組む。次世代電池を使う「全固体電池車」の発売時期は、20年代前半とする従来の目標を維持した。

### 出典: 日経

**PSR 分析:** バッテリーが今後の自動車産業の行方を左右すると言われ、国際的な競争が激化しているなかで、日本の自動車メーカーはこれまで大規模な投資はしていなかった。EV用バッテリーで先行する海外メーカーは大増産の計画を進めている。ノースボルトは今後10年間で年間150GWhという驚異的な生産能力の向上を目標としている。CATLの2019年の出荷量は32.5GWhで、今後2-3年以内に中国で52GWh、ドイツで14GWhの工場を新設する予定とのことだ。

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## Far East Report

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トヨタの今回の発表はその投資額の大きさからも、国際的競争力を有する規模だと判断して良い。肝心のバッテリー生産拠点が国内になるか、海外になるかは非常に重要なポイントだ。当然のことだがバッテリーは重いため、バッテリーを自動車生産拠点へ輸送するコストも車両価格に反映するからだ。

自社、もしくは自社グループでバッテリーを調達できない自動車メーカーがEVを生産するためには、バッテリーを他社・他グループから購入するしかない。社外・グループ外から調達されるバッテリーには輸送コストと利益が載っている。また、現在のような売り手主導の市場構造が続く限り、納期も希望通りにはなりにくい。

こうした見方が常識になりつつある状況の下で発表された今回のトヨタのバッテリー投資は、他社を含む国内自動車業界には概ね好意的に捉えられている。

この投資が、トヨタ自身はもちろん、子会社であるダイハツや日野を筆頭に、トヨタと提携関係にある自動車メーカー6社（トヨタ、ダイハツ、日野、スバル、マツダ、スズキ）に具体的にどのような影響があるのかはまだ不明だ。だが、いずれにしてもEVシフトが進む中でバッテリーの調達性はメーカーにとってはかなり重要であり、トヨタのこの投資は、これまで他社と比べて消極的と見られがちだったトヨタのEVに対する姿勢への評価を覆すきっかけになるかもしれない。 **PSR**

## Far East: South Korea Report

By *Akihiro Komuro*, Research Analyst, Far East and Southeast Asia

### Hyundai Motor To Convert Heavy-Duty Trucks and Buses To Hydrogen and Electric Vehicles

The Hyundai Motor Group has announced its "Hydrogen Vision 2040," which states that 2040 will be the first year of the popularization of hydrogen energy. The company plans to launch new models of all commercial vehicles, including heavy-duty trucks and buses, with hydrogen-electric and electric vehicles. The goal is to reduce the price of hydrogen-electric vehicles to the level of general electric vehicles by 2030 by developing a next-generation hydrogen fuel cell system that is inexpensive and has good performance.

The Hyundai Motor Group will not launch any new commercial vehicles powered by internal combustion engines in the future. It plans to mass-produce hydrogen-electric trucks in the country in the first half of next year and plans to apply hydrogen fuel cells to all of its commercial vehicle lineup by 2028.

Hyundai Motor Group also plans to make a full-scale entry into the European market for medium- and heavy-duty commercial vehicles, which is estimated to reach 400,000 units per year. For this purpose, it is also developing a 5 to 7 meter-long hydrogen fuel cell purpose built mobility (PBV). With this PBV in the forefront, the company plans to capture the global light commercial vehicle market, which is expected to reach 7 million units by 2030.

**Source: The Korea Economic Daily**

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## Far East Report

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### OE Link™

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OE Link™ is the definitive source of global OEM production and forecast data for with engine installation detail for the full range of highway vehicle and off-road segments. And now it includes information on electric and hybrid-drive systems.

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**PSR Analysis:** Hyundai's hydrogen fuel cell truck, the "EXCENT," is gaining recognition as a hydrogen fuel cell truck. The company has already delivered 1,000 units to Switzerland and has a proven track record. The characteristics of fuel cells, such as long cruising range and short charging time, are highly compatible with commercial vehicles. There are still two major issues that need to be addressed, namely infrastructure development and high initial costs, but if these two concerns can be cleared, the strategy of using fuel cells for large commercial vehicles such as trucks and buses makes sense. First and foremost, FCVs require a proven track record, and in this respect, Hyundai Motor is steadily climbing the ladder. I predict that there is a good chance that other truck and bus manufacturers will follow suit. **PSR**

## 極東 > 韓国レポート:

### 現代自、全ての大型トラックとバスを水素・電気車に

現代自動車とLG化学は7月29日、インドネシアにEV向けの電池工場を建設すると発表した。投資額11億ドル(約1200億円)を折半負担する。ニッケル埋蔵量が世界最大のインドネシアで電池を量産し、世界各地の現代自と起亜の完成車工場に供給する。

ジャカルタ中心部から南東約65キロのカラワン地域の工業団地にある33万平方メートルの敷地に新工場を設立する。年内に着工して2024年には量産を始める。年間生産能力は10ギガワット時で、EV15万台分の電池を供給できるといふ。現代自と起亜は今後5年間で計23車種のEV新モデルを発売する計画を持つ。セダンやSUV、高級ブランド「ジェネシス」にも広げるために基幹部品の電池の安定調達が課題だった。同社初の合弁工場とすることで長期的なEVシフトにつなげる。

合弁工場の建設にあたって、インドネシア政府から法人税や関税の減免を受ける。同政府はEV用電池の主要材料となるニッケルの豊富な埋蔵量を背景に、EV関連産業の集積を目指している。米地質調査所によると、20年時点のニッケル推定埋蔵量は2100万トンと世界最大だ。政府は外国企業の投資を呼び込むために未加工ニッケルの禁輸に踏み切った。

### 出典: The Korea Economic Daily

**PSR 分析:** 現代自動車の水素燃料電池トラック「エクセント」は水素燃料電池トラックとして知名度を向上させている。スイスへは1000台単位の納入をすでに行っており実績も積んでいる。長い航続距離と短いチャージ時間という燃料電池の特性は商用車との親和性が高い。インフラ整備の問題とイニシャルコストの高さという大きな2つの課題は残るが、この2つの不安要素をクリアできれば、トラックやバスの大型商用車を燃料電池にするという戦略は理にかなっている。なによりもFCVにはまず実績が必要であり、その点において現代自動車は着実に階段を上っている。他のトラック・バスメーカーがこの動きを追従する可能性は高いと私は予測している**PSR**

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*Automaker VinFast is partnering with China's Gotion High-Tech to research and produce batteries for electric vehicles as part of its vision to become a global brand.*

## SouthEast Asia: Vietnam Report

By *Akihiro Komuro*, Research Analyst, Far East and Southeast Asia

### VinFast Partners with Chinese Company To Make EV Batteries

Automaker VinFast is partnering with China's Gotion High-Tech to research and produce batteries for electric vehicles as part of its vision to become a global brand.

According to a statement released by Vingroup, VinFast's parent company, the two companies are planning to build Vietnam's first lithium iron phosphate (LFP) battery plant. LFP is an iron-based battery that does not rely on rare raw materials such as cobalt or nickel. That makes LFP batteries much cheaper, although they have lower energy density than nickel-based chemistries.

According to Vingroup, Gotion is the leading manufacturer of LFP batteries in China, with eight research and development centers worldwide and 10 manufacturing facilities in China. Thai Thi Thanh Hai, vice chairman of Vingroup, said the partnership is key to VinFast's ability to achieve supply chain autonomy.

VinFast has also partnered with companies in the US, Israel and Taiwan to produce ultra-fast charging batteries with longer range and life.

VinFast is aiming to become a global electric car brand and plans to deliver its first electric car by the end of this year.

#### Source: VN Express International

**PSR Analysis:** VINFAST, Vietnam's domestic car brand, has been mentioned several times in PowerTALK™ News. During my visit to Vietnam several years ago, I also inspected the area around the plant in Haiphong, one of Vietnam's largest port cities, and found that the plant is located in a very rational location, anticipating the import of parts and export of finished cars.

It reminded me once again of the strength of their ambition to become a global brand. They have just recently released a gasoline-powered car and are growing at an astonishing rate, launching an EV model at the end of this month. They have already opened branches in the US and Canada, France, Germany, and the Netherlands.

How well they will be received in the global market will be a real evaluation that will be solidified over the next few years. Domestically, expectations for VINFAST are very high, and its name recognition is growing. The government is also giving it a boost by subsidizing registration fees and consumption taxes. It will be interesting to see how well the company can appeal to the market with its European design, VINGROUP's financial strength, and a high-performance battery that does not rely on rare metals.

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## SouthEast Report

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## 東南アジア > ベトナムレポート:

### VinFast、EV/バッテリーの製造で中国企業と提携

自動車メーカーのVinFastは、世界的なブランドになるというビジョンの一環として、中国のGotion High-Tech社と提携し、電気自動車用バッテリーの研究・生産を行っている。

VinFastの親会社であるVingroupが発表した声明によると、2社はベトナム初のリン酸鉄リチウム (LFP) 電池工場の建設を計画している。LFPは、コバルトやニッケルなどの希少な原材料に依存しない鉄系の電池だ。そのため、ニッケルベースの化学物質に比べてエネルギー密度は低いものの、LFP電池ははるかに安価になる。Vingroupによると、Gotionは中国のLFP電池のトップメーカーであり、世界に8つの研究開発センターを持ち、中国に10の製造拠点を持っている。Vingroupの副会長であるThai Thi Thanh Hai氏は、今回の提携は、VinFast社がサプライチェーンの自律性を実現するための鍵となる、と述べている。

また、VinFastは、米国、イスラエル、台湾の企業と提携して、より長い距離と寿命を持つ超高速充電バッテリーを製造している。

VinFastは、世界的な電気自動車ブランドになることを目指しており、今年末までに最初の電気自動車を納入する予定とのことだ。

#### 出典: VN Express International

**PSR 分析:** ベトナムの国産車ブランドであるVINFASTについてはこれまでも何度かPowerTALKで触れてきた。筆者もベトナムを訪問した際、ベトナム有数の港湾都市であるハイフォンにある工場周辺を視察したが、この工場は、パーツの輸入と完成車の輸出を見越した、極めて合理的な土地に配置されている。彼らのグローバルブランドになるという野心の強さを改めて思い出す。先日ガソリン車をリリースしたばかりだが、今月末にEVモデルを発売するという驚異的なスピードで成長している。彼らはすでに米国とカナダ、フランス、ドイツ、オランダに支店を開設している。

グローバル市場で彼らがどのくらい受け入れられるのか、本格的な評価はこれから数年かけて固まるだろう。国内ではVINFASTへの期待は非常に高く、知名度は伸びている。政府も登録料と消費税を助成するなど、後押しをしている。ヨーロッパのデザインとVINGROUPの資金力に加え、レアメタルに依存しない高性能バッテリーを得ることでどれだけ市場にアピールできるのか、注目していきたい。 **PSR**

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## India Report

By *Aditya Kondejkar*, Research Analyst – South Asia Operations.



*Aditya  
Kondejkar*

### India EV Segment Gains Traction

The EV segment in India is continuing to grow with additional government support. In July of this year, the government partially modified the Faster Adoption and Manufacturing of Electric Vehicles (FAME) in India Phase II. It has included an additional demand incentive for electric two-wheelers to ₹15,000 per KWh from an earlier uniform subsidy of ₹10,000 per KWh for all EVs, including plug-in hybrids and strong hybrids except buses.

This decision will increase the subsidy for such vehicles by 50% under the FAME II scheme and be a game-changer in adopting EVs.

Such moves from the government will boost faster adoption of EVs. Furthermore, with this kind of solid support, OEMs will also take a step forward to accelerate the mass adoption of EV.

With the ecosystem development now at a certain level of maturity, customers are now ready to move to electric vehicles. Considering all these encouraging signs, all stakeholders of this segment are adopting aggressive strategy.

#### Read The Article

**EV Station Providers.** Hindustan Petroleum Corp (HPCL) plans to build 5,000 EV charging stations in 3 years. The company has 19,000 fuel retail outlets and 85 EV charging stations across the country.

HPCL is one of the early players to bet heavily on EVs. In the last few years, HPCL has piloted battery-swapping facilities and charging stations and partnered with multiple players to prepare itself for a larger rollout of EV charging stations.

The company is planning to leverage its country-wide network of fuel stations, brand loyalty, and experience to maximize the pie in the EV industry. The company is moving ahead with its clustering approach. This will allow it to have a stronger presence in cities or routes that have higher EV potential rather than spread itself thin across the country.

**OEMs and Customers.** Post achieving success with Nexon EV, Tata Motors has launched a new EV in the sedan segment – Tigor. The company is focusing on customers who are looking for optimal range at an affordable and accessible price. This represents the majority of the market.

Ola Electric, the EV arm of ride-hailing firm's Ola, sold e-scooters worth over Rs 1,100 crore in just two days. **PSR**

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## Russia Report

By *Maxim Sakov*, Market Consultant, Russia Operations

### New Electric Transport Plan To Cost US\$ 8 Billion



*Maxim  
Sakov*

The Russian government has approved a new plan for electric transport development into 2030 that will be implemented in two stages. At the end of the first stage, the plan calls for production of at least 25,000 electric vehicles and the launching of 9,400 charging stations.

By 2030, 10% of all new vehicles should be electrical, and the number of charging stations should increase to 72,000.

In Russia, by 2030 it's planned to launch production of accumulator battery cells, and to build 1,000 hydrogen fuel stations for vehicles.

The total budget for the plan is estimated at about US\$ 8 billion (591 Bln Rubles), and more than 80% are from non-budget sources.

The government plans to develop the market for electric cars, using programs to stimulate demand such as privileged leasing and sponsored credit. Under the plan, owners would pay reduced transport fees, and purchases would be supported by a 25% discount for localized models.

The Russian electric transport market is well behind the global market. The total fleet of electric cars counts up to 11,000 vehicles (less than 1% of the total fleet).

There are only two actual electric car projects – private Zetta and KAMA, developed by KAMAZ and St Petersburg polytechnical university, but none of them are in mass production.

The situation with electric buses is better. There are three OEMs doing mass electric bus production – GAZ, KAMAZ and Volgabus. The annual production is about 300 units. **Read The Article**

**PSR Analysis:** The project is interesting because it includes not only electric cars, but he hydrogen vehicles as well, plus buses and trucks. However, the result of a similar program for natural gas vehicles is very bad. Since 2013, when the NG program was approved, almost nothing has been done.

### Avtotor Company Left Without Subsidies for BMW Cars

Avtotor is no longer receiving utilization fees for BMW cars, assembled according to the contract with the OEM in Kaliningrad. The German OEM is not ready to announce plans for increasing localization of production in Kaliningrad to return compensations.

It looks like for BMW it's easier to raise final the price to compensate for a loss of subsidies, than to make local production deeper. Currently, Avtotor assembles X5,

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## Russia Report

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*Rostselmash, the largest Russian AG machine maker, during the period into 2024 will increase investments for production development from US\$ 275 million to US\$ 390 million.*

X6 and X7 in Kaliningrad. Sedan car assembly was shifted abroad last Spring.

### Read The Article

**PSR Analysis:** The market size in Russia for BMW is very small. And it looks like that this niche BMW is lost to their colleagues from Mercedes, which establishes own production plant in Moscow region.

## Rostselmash Increases Investment Program More Than 40%

Rostselmash, the largest Russian AG machine maker, during the period into 2024 will increase investments for production development from US\$ 275 million to US\$ 390 million (19.9 billion Rubles to 28.5 billion Rubles, respectively).

Initially, the transmission plant was scheduled to make 90,000 gear units per year, but as soon as the plan of tractor production was corrected, planned output of the transmission plant was increased to 150,000 gear units per year. Also, three new painting lines were added.

In the beginning of September Rostselmash started building a new plant in Rostov-Don. It will make tractors, road construction and communal machines. The new plant will make 5,000 machines per year. **Read The Article**

**PSR Analysis:** With the increased harvest in Russia, increased prices for grain and the remaining State support program, Rostselmash has increased resources for a larger investment program. However, another reason for increasing investment is the growing inflation, which requires additional spending. **PSR**

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