

In This Issue

NA: Generac Capitalizes on Change

NA: Tesla Battery Day News

NA: Electric Boats Gain Share

NA: US Combine Production

SA: Chile Bets on Hydrogen

Brazil: The Future of Diesel CVs

Taiwan: Self-Drive Bus Tested

Japan: OEMs Expand Hydrogen Network

South Korea: Doosan, Game Developers Collaborate

Vietnam: VinFast Enters Luxury Segment

India: Regulatory Changes Boost Autos

Russia: Western OEMs Push LNG

Russia: First EV Car Delayed

Russia: Mining Trucks Sold To India

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 [Click Here To Go To Page 1](#)

North America Report

Generac Capitalizes on Series of (Un)fortunate Circumstances

By *Tyler Wiegert*, Project Manager and Power Systems Analyst

In last month's issue of *PowerTALK News*, I wrote about how the pandemic was impacting some of the giants of the power generation industry, and Generac stood out as an OEM that had been well-positioned to capitalize on the disruptions in the marketplace.



*Tyler
Wiegert*

They were already dominant in home backup power, a household name, and a clear early thought for the many people who were suddenly working and learning from home and searching for a way to make sure they did not lose power. At the same as this enormous upheaval affected our lives, wildfires blazed across California and continue to ravage the state, and hurricanes devastated the Gulf Coast.

While other residential power suppliers ran into supply chain bottlenecks that kept their dealers from being adequately stocked for the surge in demand, Generac managed to keep inventory flowing, leading to profits that are incredible by the standard of what we expect in this time, and a 20.8% jump in their share price in August alone.

While that is certainly impressive, these circumstances largely suited the brand and product that Generac had already developed for itself. The success over the summer spoke to Generac's logistical prowess more than anything.

But they have made sure to let us know that they are not content to rest on that. At the same time, they were announcing their 17% Year-Over-Year growth in earnings per share at the end of July, we also heard about a new home standby system with 70% the footprint of their existing systems. On August 10, Generac announced it was introducing a whole-home solar backup power storage system, something Generac's CEO, Aaron Jagdfeld, says will be the first end-to-end managed battery-powered backup system.

Read The Article

For at least the last few years of our PowerTracker Business survey, which interviews 900 businesses every quarter about their thoughts on backup power and concerns about electricity prices and availability, Generac has been the only brand mentioned more than even three times as what the respondent would purchase if they were in the market for a generator.

Unlike companies like Tesla, which achieve market dominance out of a combination of being the first entry and holding a kind of mystique, Generac built its brand deliberately and nonsensically. That strategy has allowed them to become synonymous with home standby power for many of the consumers who are only

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North America Report

Continued from page 2

Even though Tesla's "Battery Day" was held Sept. 22, 2020, it didn't produce the wildly exciting results that Elon Musk had promised would "blow your mind."

now entering the market and achieve significant growth in what certainly is the most adverse economic environment in the last decade, if not nearly the last century.

But what Generac has in common with the Teslas of the world is that innovation drives them. There is no delay to let consumers buy up their existing inventory and then sell them a complimentary storage system. Even while demand is still surging and Generac is ahead of the rest of the market, they are unveiling their reduced footprint that they estimate will save consumers \$8000 on purchase and installation, consumers that very well might have purchased the larger-footprint models if Generac had held back. And even while consumers appear willing and eager to buy up generators, Generac is offering them a new solar backup system with storage and load management. They are giving their competitors no chance to catch up. They are pressing on ahead with new products, new strategies, even ones that may eat into the business they already have. And that is why they will stay ahead. **PSR**

Tesla Poised To Start the Engine...as Competitors Close In

By *Tyler Wiegert, Project Manager and Power Systems Analyst*

Even though Tesla's "Battery Day" was held Sept. 22, 2020, it didn't produce the wildly exciting results that Elon Musk had promised would "blow your mind."

During its event, Tesla talked about producing a \$25,000 car but didn't say much about a "million mile" battery. It also outlined plans to dramatically reduce the cost of its battery cells and packs to \$100 per kilowatt-hour, at which point experts believe electric cars will become comparable in price to combustion engine vehicles.

Bill Gates-backed QuantumScape, the first US battery company to go public in a decade, announced that it has overcome two major hurdles to create an all-metal lithium battery, which, if true, would allow electric vehicles to go up to 50% further on a single charge. Those hurdles were metallic lithium's propensity to explode when it comes into contact with liquid and its needle structure that has historically punctured plastic separators between electrodes and caused shorts.

They announced that VW would be using those batteries in their vehicles in 2025. At the same time that the startup he backs was announcing a significant technological coup over Tesla, Gates was writing a blog post to cast doubt on the ability of batteries to serve as practical solutions for long-haul trucks and cargo ships, an area that Tesla has more recently moved into and does not have the same enormous lead it does in the electric passenger car space. Though its share price has rallied somewhat in the past few days, investors in September were selling off shares of Tesla, leading to a 21% drop in the first week in September, indicating that even with a big announcement on the way, there is a bear market for technology stocks generally, and alternative power stocks specifically. That was only exacerbated by impressions that Tesla's stock in particular is significantly overvalued.

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[↑ Click Here To Go To Page 1](#)

North America Report

Continued from page 3



But Tesla seems poised to turn the narrative around with an anticipated announcement this month that the car-and-battery manufacturer is about to achieve price parity with combustion-engine vehicles. Tesla has been in the market long enough to steadily take advantage of the 7-8% increase in battery efficiency every year, such that the average battery pack was about \$130 kWh compared to the \$100 kWh cost of combustion-engine vehicles.

In the last year, design improvements have been less important than logistical and manufacturing efficiencies, achieved primarily through targeted acquisitions. The first of those acquisitions was Maxwell, a San Diego company that had designed a battery manufacturing process that could reduce the space needed for equipment and increase energy density. The other was a Canadian company called Hibar, which had created an automated system for battery manufacturing.


Vertical integration has also played a role in Tesla's quest for cost-parity. Tesla originally sourced all its batteries from Panasonic, before demand forced them to source from LG and CATL, China's largest lithium-ion battery producer. While Tesla has built an \$80 kWh battery pack with CATL, it has a range more suitable for China's urban markets than for the US' sprawling freeway system. Now, Tesla plans on producing their batteries themselves in "terafactories," plants that can produce batteries on 20 times the scale of his current gigafactory and using the technologies of Maxwell and Hibar to produce higher-density batteries without significantly increasing the footprint of the factories themselves.

[Read The Marker Article,](#)
[Read The Fox Business Article,](#)
[Read The Barron's Article,](#)
[Read The Marker Article](#)

In my other article this month, I write about how Generac is driven by innovation, which has allowed it to capitalize on the pandemic and severe weather of 2020 in a significant way. It also has set itself up to make competing backup power systems obsolete. Their endless pursuit of innovation has made them into a market leader that still manages to grow their market share through consumer-focused products.

Tesla is captivated by the very specific and powerful vision of Elon Musk, who "wants you to think of the internal combustion engine like an expensive horse," in the words of Venkat Viswanathan, a professor at Carnegie Mellon. Musk's goal through Tesla is to make the internal combustion engine obsolete. He is not looking for consumers to be simply indifferent between batteries and IC-engines, but for IC-engines to have a social stigma. It isn't clear that the traditional automakers include a constant and radical innovator who can compete with Tesla from the traditional engine side or catch up to them on the battery side.

Passenger Cars are only one of the 13 segments that we track at Power Systems Research, but one thing that everybody with a hand in that industry, or in Lawn & Garden or Recreational Products or Commercial Vehicles knows is that the technology that comes to passenger cars does not stay there.

 [Click Here To Go To Page 1](#)

North America Report

Continued from page 4

Improvements to both batteries and to the process of manufacturing them are a major focus of our team of analysts, because we know that businesses in all of the engine-powered industries, including our own, are set to face an unprecedented upheaval when batteries or other alternative power sources achieve cost-parity with international combustion engines.

PSR has experience forecasting these upheavals in custom projects and our global-coverage databases are updated quarterly to reflect our best understanding of the emerging alternative power markets. Take advantage of our expertise, and make sure your business doesn't become another Kodak in this once-in-a-generation transition. **PSR**

Electric Boats Gain Industry Share

By *Michael Aistrup, Senior Analyst*



*Michael
Aistrup*

There seems little doubt that electric powered boats will grow as the fast-improving technology trickles down from the automotive industry, which is driving battery technology, to the marine engine industry.

Today the electric boat has become a \$4.5 billion global marine industry segment, and a report by IDTechEx shows that the market for hybrid and pure electric boats will rise significantly to over \$20 billion worldwide by 2027.

The argument for electric powered boats is:

- No discharge of engine exhaust into the water,
- No spilling of fuel when refueling,
- No oil leakage,
- Quieter than comparable gas/diesel powered engines,
- Lithium-based batteries,
- No winterization and little to no maintenance,
- No emissions.

Brushless permanent magnet electric motors and advances in lithium ion battery technology have allowed leaps to be made in the rush to marine electric. Lithium-ion batteries are half as heavy as lead-acid batteries and last three times as long, and advances in their effectiveness and stability have been significant.

Hybrid and pure electric drive systems have grown within the automotive industry, hybrid or electric boats are just beginning. The marine world is a relatively small niche market that tends to follow the automotive industry in terms of innovation. Currently, only less than 2% of boats today are integrating electric or hybrid

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North America Report

Continued from page 5

As hybrid cars such as Tesla have grown in popularity and become driving options, boat manufacturers have begun to realize the potential of battery powered boats.

propulsion. Boats have a different frequency and variety of uses than cars, making it difficult to build one electric battery solution to fit all applications.

Storage technology continues to be the largest limiting factor in more widespread acceptance of electric powered boats along with costs and life of the battery. Most electric boats have been slow and small and had restricted range. There's also the problem of infrastructure where do they recharge?

As hybrid cars such as Tesla have grown in popularity and become driving options, boat manufacturers have begun to realize the potential of battery powered boats. Boaters tend to have an appreciation for the aquatic eco-system around them. New technologically advanced boat models are now making hybrid gas/electric propulsion not only feasible but enjoyable.

Konrad Bergstrom, the millionaire behind X Shore, says that he was inspired by Tesla to create its lineup of electric boats. He followed a few principals that served Tesla well:

- Create an electric boat that is better than fossil fuel-powered boats focusing on long-range and high-performance
- Starting low volume and high-end before making your way down market with higher volume

However, X Shore found that electric boats have a more difficult energy problem than electric cars due to the density of water versus density of air.

Bergstrom told Motorboat magazine: "Water is 784 times denser than air and takes a lot more energy than rolling a car along a flat road. "It's like a car driving up a 45-degree hill all the time." They had to develop a more efficient hull, drivetrain, and then pack enough batteries to make sure it would have a decent range.

Electric drives are increasingly playing a role for vessels of limited size and for limited distances—on lakes and rivers, and near the coast," said Peter Mueller-Baum, a managing director at Germany's VDMA machinery association. "This could become an important segment, because it theoretically encompasses a large number of vessels."

So when will electric boats become serious contenders on the water? "In terms of a full-on battery powered boat, we aren't there yet," said Lee Gordon, Brunswick's Director for Marine Public Relations & Communications. Boats face significant hurdles in that process. The average car will run on 100-300 horsepower. That'd be plenty to push a lightweight fishing boat, but larger pleasure boats need 10-times that much.

The technology may be complicated, and the adoption rate may still be around 2%, but change is happening at an accelerating pace as breakthroughs in battery expertise, motor design, more dealers, repair facilities, battery recycling options and complementary infrastructure such as charging stations and lightweight hull-building materials are introduced. Fast, clean, quiet and price-effective electric, hybrid and solar boats will soon be within reach of boaters everywhere.

 [Click Here To Go To Page 1](#)

North America Report

Continued from page 6



New Boat Sales Continue To Climb

New data from the NMMA shows June was another strong month for **new power boat retail sales**, up 6% on a seasonally-adjusted basis compared to the previous record month in May. Compared to the same time period last year, new powerboat retail sales were up 5% through June.

“115,000 new power boats were sold in May and June alone - a 30% increase over the same time period last year - with personal watercraft, saltwater fishing boats and jet boats driving growth. These segments have recovered from pandemic-related losses and year to date, sales are up from where they were a year ago,” said Vicky Yu, NMMA director of business intelligence. “We expect sales to be strong through the remainder of the summer.”

The latest data show 2020 cumulative sales of personal watercraft up 10%; saltwater fishing boat sales up 5%; and jet boats up 9% compared to a year ago.

PSR

DataPoint: US Combines

6,300

By *Carol Turner*, Senior Analyst, Global Operations

The 6,300 units is the estimate by Power Systems Research of the number Combines to be produced in the U.S. in 2020.

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: John Deere leads in the production of Combines in the U.S. with 59% of the total units manufactured. In second position is Case with 29%. Third, is Class with 6%.

Exports: Collectively, up to 30% worldwide.

Trends: In 2019, production of combines in North America decreased 7%. Production in 2020 is forecasted to remain flat with a nominal drop of 1%. Despite COVID-19, combine manufacturers expect to see an increase in sales due to the introduction of new equipment. A few years ago, farmers were reluctant to buy or trade in pricey equipment because of low commodity prices. For instance, in 2017, production and purchases of new combines rebounded as portrayed in production figures. The gain can be attributed to an increase in commodity prices such as corn and soybeans that peaked in 2013/2014. According to industry reports such as AEM, export sales to Canada decreased 19% in 2019. Expect production to remain flat with a possible gain of 5% by 2025. **PSR**

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Brazil/South America Report

Chile Bets on Hydrogen

By *Fabio Ferraresi*, Director Business Development South America



*Fabio
Ferraresi*

Chile has announced plans to produce US\$ 30 billion in green Hydrogen for export by 2050. This involves using the mining industry equipment traditionally powered by diesel in fuel cell powered equipment to make the bridge for current state to future state.

Source: *Financial Times* [Read The Article](#)

PSR Analysis: There are several roadblocks as technology improvement needs, energy cost and investment source for the initiative. So far it sounds like a campaign promise rather than a robust initiative. However, the technology use is progressively closer to reality. **PSR**

The Future of Diesel Commercial Vehicles in Brazil

By *Carlos Briganti*, PSR Managing Director - South America



*Carlos
Briganti*

Read the complete report here.

INTRODUCTION. The use of diesel in Commercial Vehicles and its alternatives has been studied and discussed globally over the past two decades. We have updated future trends annually based on the new platforms in our data and new models in development allowing us a 10-year horizon. In August 2019 we published an article on the subject for Automotive Business Brazil, which now has been updated.

In the 2019 article we said that fossil diesel propulsion for commercial vehicles would be exposed to several alternatives and therefore the 20s decade would be a decade of significant changes, justifying yearly monitoring of the subject.

This whole range of studies was then impacted by COVID-19, a new event at the beginning of this decade that is another factor of change in this complex subject.

COVID19. There is not clear answer yet how the post COVID world will be, but we can already identify some trends:

- Due to long quarantine periods, the world has had the opportunity to live with cleaner cities in terms of air pollution, which has become a wish. This aspect is quite unfavorable to diesel engines, mainly in metropolitan regions
- The price of oil decreased by around 65% in March 2020, returning to a value of \$ 40 / barrel, 30% less than in 2019. This makes the operational cost of the Diesel solution even more competitive.
- The pandemic required changes in hygiene behavior, as well as in aversion

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Brazil/South America Report

Continued from page 8

The impact of COVID-19 is expected to be in the order of 1 million [commercial] vehicles, and China, due to the faster recovery, would be increasing the share of world production mainly due to the reduction of the share in North America.

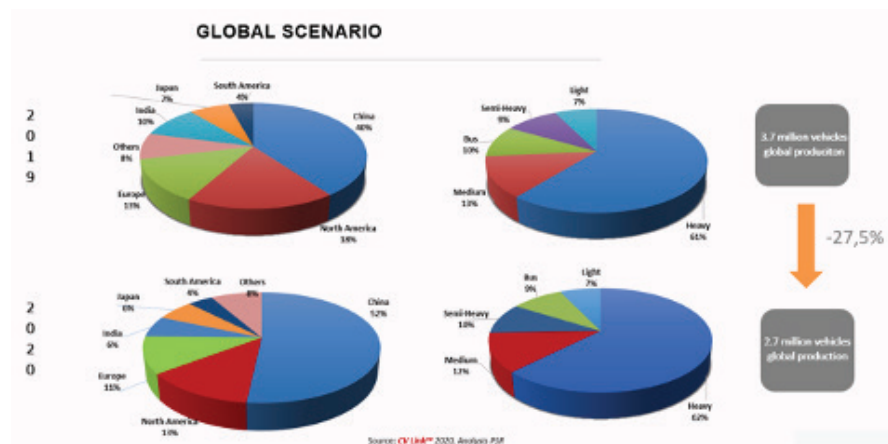
to contaminants that could affect the respiratory system, as in the case of particulate from the combustion of diesel.

- Protection of the environment is no longer a concern of NGOs, but a concern of society and fuels from non-renewable sources, such as fossil diesel, will be scrutinized in this regard. The environmental issue will be on the agenda of all future trade agreements.
- The pandemic will cause an economic recession, impacting different regions differently, but certainly the global production of Commercial Vehicles.
- All OEMs were affected in their cash and investment capacity, which tends to hinder spending on the development of new technologies.
- Logistics problems due to the long global supply chain should influence companies to develop a local and / or regional supply chain.
- Some countries heavily dependent on China supply over the past few years. Now these countries look for alternatives to reduce this dependence

COMMERCIAL VEHICLE MARKET. The impact of COVID-19 is expected to be in the order of 1 million vehicles, and China, due to the faster recovery, would be increasing the share of world production mainly due to the reduction of the share in North America.

The bus segment is the one that is being impacted the most due to people contact restriction, while the heavy and semi-heavy segment is increasing participation due to relation with long distance transportation of goods.

Here is the Commercial Vehicle production market over 6-ton, current 2019 and 2020 forecast. **PSR**



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Taiwan Report

Continued from page 9



Taiwan Report

By *Erik Martin*, Director – Asia Region

First Self-Driving Bus on Three-Month Trial in Tainan



Erik Martin

A month ago, the first self-driving bus operations began its three-month trial in the southern Taiwanese city of Tainan. It is the first revenue-generating service of autonomous rapid transit (ART) project supported by the central and local governments. The goal is to launch commercial operation across the country in 2021.

“Autonomous technology will lead a revolutionary change to the city’s transportation systems,” said Huang Wei-Cher, Mayor of Tainan. “The smart transportation initiative will help us improve overall road safety, operational efficiency, and rural area transportation services.”

The service will cover two business districts. One service will run on weekends only, on a 2.5km route between Nanke Railway Station and National Museum of Prehistory, while the other will be on weekdays in the 6.4km route along Shalun Smart Green Energy Science City, where a smart vehicle testing site is located.

The ART project is part of Taiwan’s two-year smart transportation development plan. It is supported by the Ministry of Science and Technology, the Ministry of Transportation and Communications and the National Development Council. Tainan has been tapped as the country’s first municipality to offer commercial autonomous bus services.

Source: *Future IOT* [Read The Article](#)

PSR Analysis: The Autonomous Rapid Transit (ART) project being carried out in Tainan, southern Taiwan, is an example of extensive cooperation between traditional industry players, innovative tech companies and local and national government agencies. Although this three-month trial is starting small with limited routes, no live passengers and drivers on hand in case of emergency, the goal of implementing it by 2021 is aggressive, to say the least.

The buses will make use of multiple cameras, LIDAR, high definition maps and connected car technology. Of key importance is making use of LiLee’s mass rapid transit autonomous drive technology usually applied to rail systems. Rather than requiring these buses to navigate a maze of unexpected conditions and routes subject to last-minute change, the ART buses will be programmed to move through set routes in what amounts to a virtual rail system. This regular movement through established routes will improve the safety quotient and may help ease concerns critics have regarding the dangers of autonomous drive vehicles.

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Taiwan Report

Continued from page 10

Toyota, Honda and Shell announced a plan to expand their hydrogen refueling network in California. Shell will install hydrogen refueling systems at 48 gas stations using a grant from California's hydrogen refueling infrastructure support.

While still prohibitively expensive for personal passenger cars, it is possible to convert diesel engine-powered buses to electric autonomous drive buses for something deemed worthy of the investment. Current in-service populations of diesel and gasoline powered vehicles is always of concern when converting to alternative energy sources – this repowering of the ART buses is an elegant solution.

Although this does not achieve truly autonomous driving through unknown routes, and although we will not yet be able to use this system to nap or read while commuting in our own cars each day, the ART bus program in Tainan is an excellent and sensible example of how federal and municipal governments can work with the private sector to find new solutions to age old problems. **PSR**

Far East: Japan Report

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



*Akihiro
Komuro*

Toyota, Honda, Shell To Expand Hydrogen Fueling Network in US

Toyota, Honda and Shell announced a plan to expand their hydrogen refueling network in California. Shell will install hydrogen refueling systems at 48 gas stations using a grant from California's hydrogen refueling infrastructure support. The company will also upgrade two Shell hydrogen stations and add fuel dispensers to heavy-duty truck stations.

Additionally, Toyota and Honda have agreed to expand sales of fuel cell vehicles (FCVs) in California to support the Shell hydrogen Stations. Toyota and Honda plan to expand sales of the Mirai and Clarity Fuel Cell, respectively.

Currently, there are nine Shell hydrogen stations in California. New hydrogen stations will be added to these nine stations, which will accelerate the development of infrastructure for the popularization of fuel cell vehicles.

Source: Response (The original article was partially revised by the author.)

PSR Analysis: The hydrogen challenge is now in full swing in California, where many environmental initiatives are being taken. Toyota and Honda have already commercialized FCVs, but the market for eco-cars is currently dominated by EVs and PHVs, and FCV sales are limited to a very small number.

The merits and demerits of both FCVs and EVs are already being discussed in various ways, but in the end, unless the infrastructure is in place, FCVs cannot be popularized.

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[↑ Click Here To Go To Page 1](#)

Far East Report

Continued from page 11



Shell already has a lot of experience in the area of hydrogen fueled infrastructure and would be the most suitable partner for Toyota and Honda in the US. If the assessment of FCVs is done correctly in California, this could be a great opportunity for Japanese OEMs who are ahead of the curve in FCV development.

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・ホンダ・シェル、水素供給ネットワークを米国で拡張へ

トヨタ、ホンダ、シェルの3社は9月9日、米国カリフォルニア州において、水素燃料供給ネットワークを拡張すると発表した。シェルは、カリフォルニア州の水素燃料補給インフラ支援の助成金を利用して、48か所のガソリンスタンドに水素燃料補給システムを設置する。また、シェル水素ステーション2か所をアップグレードし、大型トラックステーションに燃料ディスペンサーを追加する。さらに、トヨタとホンダは、シェル水素ステーションをサポートするために、カリフォルニア州における燃料電池車 (FCEV) の販売を拡大することで合意した。トヨタは『ミライ』、ホンダは『クラリティ・フューエルセル』の拡販を目指す。現在、カリフォルニア州内の9か所に、シェル水素ステーションがある。新しい水素ステーションが、この9か所に加わり、燃料電池車普及に向けたインフラの整備が加速することになる。

出典: レスポンス (一部筆者により元記事内容を改編しました)

PSR 分析: 多くの環境対策でイニシアティブをとっているカリフォルニアで水素のチャレンジが本格化する。トヨタとホンダはすでにFCVを商品化しているが、現時点のエコカー市場はEVとPHVが主流となっており、FCVの販売台数はごく僅かな台数に留まっている。すでにFCVとEVそれぞれのメリット・デメリットは様々な議論されているが、結局のところ、インフラが整備されていなければ、FCVの普及は望めない。シェルはすでに水素燃料のインフラ整備分野において多くの実績を積んでおり、トヨタとホンダの米国におけるパートナーとしてはもっとも適した相手になるだろう。カリフォルニアでFCVの評価が正しくなされれば、それはFCV開発に先行している日本のOEMにとっては大きなチャンスになる可能性を秘めている。 **PSR**

Far East: South Korea Report

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

Doosan Infracore Collaborates with Game Developers

Doosan Infracore says it has signed an MOU with Unity Technologies Korea for mutual cooperation in the development of a construction process simulator. This is the first joint project with a game engine developer in the construction equipment industry, which is rare in the global construction equipment industry.

The game engine is regarded as very useful in various industries such as

[↑ Click Here To Go To Page 1](#)

Far East Report

Continued from page 12

Just as Komatsu has already popularized KOMTRAX in the construction equipment industry, the use of big data and AI and the generalization of these technologies will advance at a faster pace in the construction equipment industry than in the automotive industry.

shipbuilding, logistics and construction. Doosan Infracore and Unity will work together to develop a simulator. It realizes various physical elements on a construction site where excavators and other equipment operate in a virtual environment. The simulator will be very useful in accurately predicting complex variables that may occur on a real construction site.

Source: *Kikai-News* (The original article was partially revised by the author.)

PSR Analysis: Just as NVIDIA, a semiconductor manufacturer and global leader in GPUs, has entered the field of autonomous driving to capitalize on its know-how, the ties between the computer and machinery industries are becoming closer and stronger. The quality of the machines themselves are very important factor, of course, but also the "value-added" items that have been considered in the past will become the mainstay of technology in the future. And it will not take much time. Just as Komatsu has already popularized KOMTRAX in the construction equipment industry, the use of big data and AI and the generalization of these technologies will advance at a faster pace in the construction equipment industry than in the automotive industry. **PSR**

極東 > 韓国レポート:

小室 明大 – 極東及び東南アジア リサーチアナリスト

斗山インフラコア、ゲームエンジンデベロッパと協力してスマートコンストラクションソリューションの開発を促進

8月13日、斗山インフラコアは、建設プロセスシミュレーターの開発における相互協力のために、Unity Technologies KoreaとのMOUに署名したことを発表した。国内建設機械業界初のゲームエンジン開発企業との共同プロジェクトも、世界の建設機械業界では珍しい。ゲームエンジンは、造船、ロジスティクス、建設などのさまざまな業界で非常に有用であると評価されている。斗山インフラコアとUnityは共同でシミュレーターを開発する。掘削機などが仮想環境で稼働する建設現場におけるさまざまな物理要素を実現する。シミュレーターは、実際の建設現場で発生する可能性のある複雑な変数を正確に予測するのに非常に役立つ。

出典: 産機通信 (一部筆者により元記事内容を改編しました)

PSR 分析: 半導体メーカーであり、GPUの世界的大手であるNVIDIAが自動運転分野においてノウハウを生かすべく参入したように、コンピュータ業界と機械業界の結びつきが密接かつ強固になっている。機械そのものの品質はもちろんだが、今まで「付加価値」とされてきたものが今後は技術的な主軸へととなっていく。そしてそれに時間はあまりかからない。建機業界ですでにコマツがKOMTRAXを普及させたように、データ活用、AI活用、それらの技術の一般化は、建機業界においては自動車業界よりも早い速度で進むだろう。 **PSR**

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Southeast Asia: Vietnam Report

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

VinFast Enters Luxury Segment With New SUV

Vietnamese automaker VinFast has launched a luxury SUV, the VinFast President, to take on global brands like Lexus and Mercedes. To cost VND4.6 billion (\$198,200), the seven-seater looks similar to VinFast's first SUV, the Lux SA2.0, but with more advanced technologies and frills like massage and heated seats.

Its 420HP V8 engine can go from zero to 100 kilometers per hour in 6.8 seconds and offers a top speed of nearly 300 kph. VinFast will produce only 500 units and sell them exclusively in Vietnam. The first 100 customers will get a 17% discount on the price.

In its segment, the VinFast President costs 45% less than the Lexus LX 570 and 33% less than the BMW X7. Industry insiders say it lacks some premium features often seen in luxury cars such as captain's chairs, TV screens and a high-end sound system. The vehicle signifies the ambition of VinFast, a unit of Vietnam's largest conglomerate, Vingroup, to enter all segments of the auto market after bringing out its first vehicle in July last year.

Source: *VN Express* (The original article was partially revised by the author.)

PSR Analysis: The pricing is quite bullish and it remains to be seen whether it will sell out or struggle. The announcement comes at a time when the domestic economic slowdown caused by the pandemic is clearly evident and is an indication of their desire to 'prove that Vietnam can build cars that are internationally recognized'.

The release of this model is seen as an action to refine the brand rather than to make a profit. VinFast's challenge has been received favorably in Vietnam and has created a supportive atmosphere. Of course, it won't be able to increase its international presence immediately, and it will take years to raise its profile abroad. It will also cost a lot of money to promote. The first step would be to gain market share in the domestic market. **PSR**

東南アジア > ベトナムレポート:

小室 明大 – 極東及び東南アジア リサーチアナリスト

VinFastが新SUVを発売しラグジュアリーセグメントへ参入

ベトナムの自動車メーカーVinFastは、レクサスやメルセデスなどのグローバルブランドに対抗するため、高級SUV「VinFast President」を発表した。価格は46億ドン（198,200ドル）で、7人乗りのこの車は、VinFastの最初のSUVであるLux SA2.0に似ているが、より先進的な技術とマッサージやシートヒーターなどの装飾が施されている。420馬力のV8エンジンは、ゼロから時速100kmまで6.8秒で走り、最高

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Southeast Report

Continued from page 14



速度は時速300km近くに達する。VinFastは500台のみを生産し、ベトナムで独占的に販売する。先着100名には17%の割引価格が適用される。このセグメントでは、VinFast PresidentはLexus LX 570よりも45%、BMW X7よりも33%安い。業界関係者は、キャプテンズチェア、テレビ画面、ハイエンドサウンドシステムなど、高級車によく見られるプレミアム機能が欠けていることを認めている。この車は、ベトナム最大のコングロマリットであるVingroupのユニットであるVinFastが、昨年7月に最初の車を発表した後、自動車市場のすべてのセグメントに参入するという野心を示している。

出典: VN Express (一部筆者により元記事内容を改編しました)

PSR 分析: この価格設定はかなり強気で、完売になるか、苦戦するかは未知数だ。パンデミックによる国内経済の停滞が鮮明になる最中の発表は『国際的に評価される自動車をベトナムが製造できることを証明したい』という彼らの欲求の現れだ。このモデルをリリースすることの第一義は利益を上げるといふより、ブランドを磨くためのアクションと解釈できる。ベトナム国内ではVinFastの挑戦は好意的に受け止められていて、応援する雰囲気が醸成されている。もちろん、すぐに国際的なプレゼンスを高められるわけではなく、海外での認知度を上げるには年単位の時間がかかるだろう。プロモーションコストも掛かる。まずは国内でのシェア獲得が最初のステップになるだろう。 **PSR**

India Report

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

Regulatory Changes Could Boost Auto Industry



*Aditya
Kondejkar*

India's auto industry has slid back to the level of nearly a decade ago due to several factors – multiple regulatory changes, a slowing economy, liquidity issues, and the pandemic.

The auto industry has shown signs of recovery over the last couple of months; however, an additional demand push is required to generate sustainable growth. The government is evaluating a series of possible measures such as a revision in the goods and services tax (GST) rate and a production-linked incentive and scrappage policy.

Read The Article

GST Revision: The GST council is evaluating an industry 10% GST cut across categories of vehicles.

This GST revision will defiantly neutralize the impact of the price hike due to BS-VI upgradation. Further, this GST revision will give a strong thrust to auto sales during the coming festive seasons. Further, the government is considering a plan to reduce the GST of batteries to 5% from 18% (on lithium-ion) to promote electric

 [Click Here To Go To Page 1](#)

India Report

Continued from page 15

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mobility, which will provide a massive stimulant for EVs. As the battery of an EV accounts for about 40% of the cost, GST revisions on the battery pack will bring down the overall cost significantly.

Production-linked incentive (PLI): Much work has already been done on the production-linked incentive (PLI) scheme for auto and component manufacturers. The PLI plan for auto ancillaries is aimed at reducing dependence on imports. This scheme envisages providing manufacturing and export incentives to companies. The industry is currently importing many low-tech components like gearboxes, tubes, and steering wheels, which can be developed in the country, further reducing the supply chain disruptions.

Scrappage Policy: The vehicle scrappage policy aims to scrap old vehicles in exchange for some incentives for consumers. The auto industry welcomes the scrappage policy with open arms. This policy was a boon for 18 countries, who implemented it in the aftermath of the 2008 crisis.

The policy is considered a savior for the plummeting auto industry, especially for medium and heavy commercial vehicles. However, we need a fact-check - India has more than 35 million vehicles older than 15 years. Hence, one critical task is to build a modern and compliant infrastructure that ensures that scrapped vehicles don't find their way back to the roads.

Besides, downstream logistics – the movement of scrapped vehicles from customer to scrapyards, would be another hurdle. Furthermore, incentives from OEMs and the government need to be sizeable enough to attract the price-sensitive Indian customers (in case of the voluntary policy).

We believe scrappage policy alone will not be able to produce very high boost, but together with GST revision and PLI implementation, the Indian auto industry will witness a strong recovery in the coming quarters. **PSR**

Russia Report

By *Maxim Sakov, Market Consultant, Russia*

Western Auto OEMs Seek Privileges for LNG Trucks



*Maxim
Sakov*

Move is opposed by Russian KAMAZ which plans to make such machines

Market players have proposed canceling import taxes and utilization fees for commercial vehicles fueled by LNG until 2025. The target of the measure – development of LNG-transport till appearance of domestic analogs of such machinery.

The suggestion comes from foreign makers of LNG on-highway

[↑ Click Here To Go To Page 1](#)

Russia Report

Continued from page 16



tractors and supported by Gazprom. Now, no imported vehicles are exempted from these taxes.

The import tax for on-highway tractors is 5% of their cost, and the utilization fee is 10 to 12K Euro. LNG tractor is more expensive than its diesel analog by about 35K Euro.

LNG as motor fuel is rarely used in Russia because of the absence of gas stations for this kind of fuel. Currently, Russia has a program for developing a network of CNG stations. There are 500 CNG stations in Russia, about double the number since 2013.

LNG is more advanced technology than CNG. 1 liter of LNG is equal to 5 cubic meters of NG. It gives 2 to 2.5 larger effect for the same fuel volume.

The only LNG truck model in Russia is produced by KAMAZ. Today, they have made only a few units. CNG trucks are made in greater number – more than 40 models of CNG trucks and buses in total number exceeding 10,000 units were made during last five years.

Read The Article

PSR Analysis: The program of natural gas fuel for motor vehicles was announced in 2013. After seven years, the output of this program implementation from Gazprom and its subsidiaries involved in the program is close to zero.

Production of First Russian EV Passenger Car Postponed

Zetta company has had to shift mass production of its Russian car “City Modul 1” until after 2020 because the Fund of Industry Development refused to provide credit of 99.9 million Rubles (about € 1.1 million).

According to the Fund opinion, the company has insufficient budget to start the production, even with the requested credit. “The company needs an investor, who will believe in market potential of the product, and will co-finance the project together with the fund. The fund is ready to consider application one more time as soon as such investor will be found,” the Fund said

“City Modul 1” would become first serial Russian electric car. Zetta plans to make the car on its own production site in Tolyatti; production capacity is 15,000 units per year.

Read The Article

PSR Analysis: The car will be assembled from all Russian components, except the battery, which will be imported from China. Expected price is 5000 Euro, half of it coming from the battery cost. The car is expected to run up to 200 km on single battery charge. **PSR**

 [Click Here To Go To Page 1](#)

Russia Report

Continued from page 17

The world's leading mining trucks OEM – Belaz – has won the opportunity to supply 96 mining trucks to India, taking the prize from US and Japanese manufacturers.

BelAZ Wins Tender To Sell 96 Mining Trucks To India

The world's leading mining trucks OEM – Belaz – has won the opportunity to supply 96 mining trucks to India, taking the prize from US and Japanese manufacturers. They are heavy 220-ton mining trucks. The supply will take two years. Twelve trucks will be shipped to India this year, and the rest will be sent in 2021. The total contract value exceeds US\$ 300 million. Belaz also is completing a previous large contract with India for 77 trucks.

Read The Article

PSR Analysis: Historically, Belarussian Belaz has supplied most of its trucks to Russian mines. However, this year it has suffered a dramatic decrease in demand from Russia. So, the OEM has had to shift its focus to other markets. Its product range includes dump trucks from 30 to 450 ton capacity, wheel loaders and dozers. OEM uses YAMZ, Cummins, MTU, Scania and Liebherr engines for its machines. **PSR**

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