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## Construction Equipment Outlook Webinar

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On Monday, Nov. 30, 2020, representatives of two leading international firms will present a free one-hour webinar discussing the construction outlook in Europe and North and South America.

During the session, we'll present the latest information on the impact of COVID-19 on construction equipment production. Also in the webinar, JCB will provide details on emissions in developing engine technologies that are coming to market across the globe.

During the webinar, the presenters will discuss

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*Chris Fisher*

### TRATON-Navistar Merger's Impact on Engine Development

*By Chris Fisher, Senior Commercial Vehicle Analyst*

In November, Volkswagen's TRATON group and Navistar announced a merger agreement in which TRATON will acquire all outstanding shares of Navistar. Previously, TRATON held 16.7% of Navistar's common shares. The deal is valued at \$3.7 billion and is expected to be finalized in mid-2021.

Navistar has been in collaboration with TRATON's brand MAN for a number of years, primarily with regard to engine development. PSR believes additional

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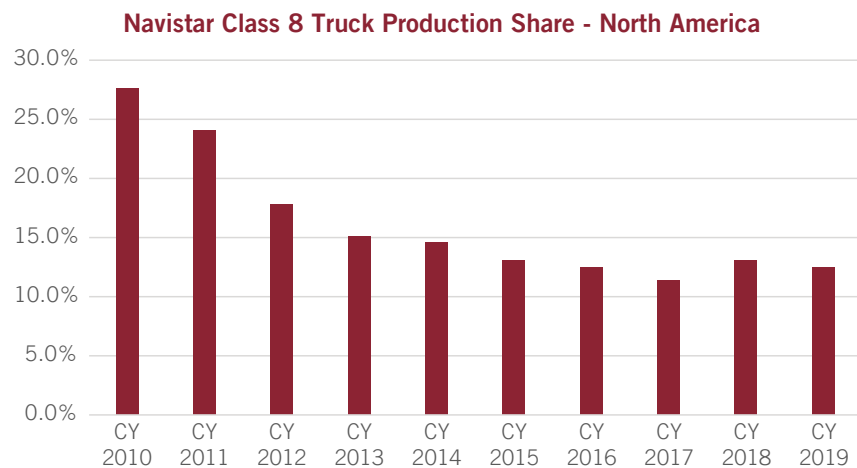
**North America Report**  
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*Prior to the U.S. 10 emission regulations, Navistar produced a complete lineup of heavy truck engines which included an 11, 13 and 15 liter engine.*

engine offerings will be one of the primary goals to improve profitability and long-term market share improvement within the class 8 truck segment.

Navistar’s decision to use EGR (exhaust gas recirculation) only rather than SCR (selective catalytic reduction) as their solution to the 2010 greenhouse emission standards adopted in the United States proved to be disastrous for the company.

Not only was Navistar unable to meet the stricter standards with their MaxForce engine platforms, they also experienced significantly higher warranty costs along with a number of lawsuits as a result of downtime incurred by the fleets. This decision resulted in a significant loss of class 8 market share over the years.



Source: Power Systems Research **CVLink™**

Prior to the U.S. 10 emission regulations, Navistar produced a complete lineup of heavy truck engines which included an 11, 13 and 15 liter engine. As a direct result of their failure to meet the 2010 emission regulations and the numerous engine problems in the field, Navistar ended production of their 11 liter engine and replaced their 15 liter engine with the Cummins ISX 15 liter engine.

In March of 2017, Navistar introduced their new 12.4 liter A26 engine which is based upon the MAN D26 engine platform. In the fall of 2017, Navistar ended production of their 9 and 10 liter engines that were installed in class 6 & 7 medium trucks primarily due to the high cost of emission certification for future regulations. These were replaced with the Cummins L series 9 liter engine platform.

In June 2019, Navistar Inc. announced it would invest \$125 million in new and expanded engine manufacturing facilities in Huntsville, Ala., over the next three years as it prepares to produce next-generation big-bore powertrains developed with its global alliance partner, TRATON. Ground was broken on the plant expansion in February, and the expansion is expected to be complete in 2023.

In my opinion, Navistar will focus on developing an 11 liter engine based upon the MAN D20 engine platform for the class 8 segment and possibly a 9 liter engine based upon the MAN D15 engine platform to serve the class 7 and “baby 8” segments.

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## North America Report

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As for a replacement for the 15 liter engine, Navistar may choose to introduce a platform based upon the MAN D38 engine to ultimately replace the Cummins 15 liter X platform.

At some point, they may also replace the Cummins B6.7 liter engine with the MAN D08 platform for the medium truck segment. However, the Cummins engine offering is unlikely to be completely superseded anytime soon since Cummins engines are extremely popular with the fleets.

The acquisition of Navistar by TRATON will enable Navistar to be a stronger competitor in the MHCV market by providing the engine range to better compete with Daimler, PACCAR and Volvo in the North American market.

This merger will greatly help Navistar reduce costs and provide the company with the knowledge needed to develop future truck designs such as electric, hydrogen fuel cell and autonomous driven vehicles that will be needed over the longer term. **PSR**

## Market Updates: PowerSports, Lawn & Garden & Marine



*Michael  
Aistrup*

By *Michael Aistrup*, Senior Analyst

### New Powerboat Retail Sales Up 8%

Data from the National Marine Manufacturers Association shows August was another strong month for new powerboat retail sales, which were up 8% year to date on a seasonally adjusted basis compared to a year ago.

New power boat retail sales did slowed in August following increases in the early summer months. Total sales were down 13 percent compared to July, while sales are still strong with increases across all major categories, year to date. Sales of saltwater fishing boats, tow boats, cruisers and yachts each had double-digit growth ranging from 11 percent to 15 percent, compared to 2019. **PSR**

### Motorcycle Sales Up by Double Digits Through Q3 2020

The Motorcycle Industry Council reports a new-model sales increase for Q3 2020. Year-to-date sales of new motorcycles and scooters through September increased 10.2% compared to the same period last year. **PSR**

### Briggs & Stratton Exits Chapter 11 with New Owner & CEO

Briggs & Stratton announced that KPS Capital Partners (KPS), through a newly formed affiliate, has acquired substantially all the assets of Briggs & Stratton Corp. KPS acquired the assets free and clear of liens, claims, encumbrances and interests through a sale under Section 363 of the United States Bankruptcy Code. Briggs & Stratton will now operate as an independent company with the long-term support of KPS, a global private equity investor with approximately \$11.5 billion of assets under management.

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## North America Report

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Briggs & Stratton also named Steve Andrews president and CEO of Briggs & Stratton effective immediately, according to Michael Psaros, co-founder and co-managing partner of KPS.

“The company has a new owner,” he said, “a new CEO, a new board of directors and a renewed focus. Briggs & Stratton launches with a portfolio of products sold under industry leading iconic brand names, a rock-solid capital structure and access to KPS’ financial resources and expertise. We look forward to accelerating the company’s growth by increasing its already substantial investment in research and development, technology and new product development. KPS will also provide the capital for Briggs & Stratton to pursue strategic acquisitions.” **PSR**

## DR Power Equipment Acquires Mean Green Products

DR Power Equipment, a division of Generac Holdings Inc., said it has completed the purchase agreement to acquire the assets of Mean Green Products, a battery powered, commercial grade turf care manufacturer.

DR Power Equipment designs and manufactures a full line of professional-grade, outdoor power equipment. Mean Green Products designs and manufactures a commercial line of zero-turn and walk behind, battery-powered turf care products that provide quiet, zero emissions and minimal maintenance options as compared to traditional commercial mowers. **PSR**

## Zero Motorcycles Partners With Polaris Industries

Zero Motorcycles, a global leader in electronic motorcycle powertrains and technology, entered into a joint development, licensing, and services relationship with Polaris Industries, an OEM of off-road vehicles/ATVs, snowmobiles, motorcycles and boats. Zero and Polaris will work together exclusively for the next 10 years to adapt Zero’s powertrain technology for motorcycles into powertrains for use in ATVs and snowmobiles within a specified power range.

Polaris Inc. is an American manufacturer of motorcycles, snowmobiles, ATV, and neighborhood electric vehicles. Zero Motorcycles Inc. is an American manufacturer of electric motorcycles. Formerly called Electricross, it was started in 2006 by Neal Saiki, a former NASA engineer. **PSR**

## Harley-Davidson Launches E-Bike Brand

Harley-Davidson launched its all-electric motorcycle, the Livewire, in 2019 and now, Harley-Davidson is taking it a step further by launching a stand-alone e-bike brand. The name for Serial 1 Cycle Company comes from “Serial Number One,” Harley-Davidson’s first motorcycle. Harley-Davidson says the e-bike emerged from a skunkworks project from “a small group of passionate motorcycle and bicycle enthusiasts” within the company.

E-bikes are expected to be a significant growth industry over the next decade as people rethink work, their carbon footprint and how they commute. **PSR**

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*In 2019, production of excavators in North America (US only) remained flat with a slight decrease of ½%. Production is expected to drop 13% for the entire year of 2020.*

## DATAPOINT: US Excavators 17,125

By *Carol Turner, Senior Analyst, Global Operations*

The 17,125 units is the estimate by Power Systems Research of the number of Excavators 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:** With combined plant totals of 45.5% Caterpillar leads in production of excavators in North America. In second position is Doosan Bobcat with 22%; third, Deere-Hitachi with 18.5%.

**Exports:** Collectively, up to 30% worldwide.

**Trends:** In 2019, production of excavators in North America (US only) remained flat with a slight decrease of ½%. Production is expected to drop 13% for the entire year of 2020. The 2020 decline can be attributed to purchasers choosing backhoe loaders that tend to be a more versatile machine. COVID-19 related factors in 2020 that affected production include company and line shutdowns.

Excavators are heavy pieces of equipment designed for large scale projects for a variety of sectors that include construction, mining, and industrial activities. Despite the lull in production, excavators are a popular device for construction related activities. Expect production to grow by as much as 3% over the next 3-5 years. **PSR**

## EUROPE REPORT

### COVID-19 Hits European Pleasure Marine Industry

By *Natasa Mulahalilovic, Marine Pleasure Boat Analyst Europe - Europe*



*Natasa  
Mulahalilovic*

The year 2020 started very well for pleasure boat builders across the Europe but it was battered in mid-year by COVID-19. The Dusseldorf trade show, Boot, held at the end of January, ended with a positive outlook and promising results for 2020. Order books were full, thanks to the great boating mood created in previous years.

The unexpected and violent Covid-19 storm came up in March. Nobody was prepared to face the challenge. Builders had to stop production or to reduce their capacities to a minimum during April and May.

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## Europe Report

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Production schedules had to be reorganized according to security measures imposed by the local governments.

Larger shipyards faced more difficulties with their rigid production processes. Smaller facilities, being more flexible and adaptable to the new requirements, suffered less. The French Beneteau Group, the global number one in the sailing boats production, has been deeply impacted by the crisis. Turnover has dropped 45% in Q3 2020. Two months of very limited activity enormously hurt the industry. The estimated drop in produced units this year is 10% to 20% across Europe.

Business activities rebounded at end of April in all European countries, thanks to better sanitary conditions. Production of boats ordered in previous years restarted with a delay of one or two months but making up for lost time proved extremely difficult for some builders.

The Catana Group, one of the world's biggest catamaran manufacturers, despite all efforts, was not able to complete the production of 297 units ordered in 2019. Three shipyards being heavily impacted by the pandemic crises have managed to produce less than half by the end of August. This is one of many examples having similar experience across Europe. Loss in turnover is irreparable.

The North and Central European citizens being disabled to travel abroad to their favorite destinations on the south this summer, have turned to the local tourism and water activities considered safe and secure from the virus. German, Scandinavian, Dutch, Great Britain, Polish and other builders have seen the opportunities in selling boats to the local population.

Local boating has been promoted intensively by the national maritime organizations and local governments. It has resulted in growing interest in a day/weekend smaller boats of all types. Countries having access to the sea or inland waters were offered great opportunities.

On the other hand, sales of bigger motor and sailing boats have suffered since the beginning of the crisis. Sales of new boats in size between 12 and 24 meters, in the normal conveniences sold abroad and used for long and far distance boating, have dropped by half in some cases. Portuguese and Spanish builders reported the international market disappeared overnight because of the Covid-19. Sweden lost 60% of its export market.

The superyacht sector remains untouchable, however. More than 90% of shipyards report incredible realizations and new projects for next three years. The Azimut Benetti Group, Ferretti Group, Sanlorenzo, Moonen, Damen Shipyard, Feadship, Heesen Yachts, Vitters are selling their yachts less in Europe, more in the Asia-Pacific and Mid-East regions. Order books for 2021 remain strong and production continues according to the plan.

2020, despite the pandemic crisis, may be considered as very bad but not completely catastrophic for the European pleasure boat industry. Thanks to last year's orders, growing interest for domestic boating, good weather conditions and

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## Europe Report

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*Travel bans prevented visits of shipyards, national and international trade shows have been canceled during the year, except for the Genova trade show.*

some governmental support, the loss in produced units is estimated to be as much as 20% comparing to 2019.

Travel bans prevented visits of shipyards, national and international trade shows have been canceled during the year, except for the Genova trade show. Their absence made a big hit on new sales. The second wave of the virus spreading over the Europe at the moment might cause cancelation of the January's Boot edition. As reported by now, orders for 2021 declined by almost 30% in the segment of bigger motor and sailing boats and yacht which represents almost a half of the total European output.

Strategic changes and industry reorganization have been taking place within bigger structures, especially those traditionally producing boats for export. The Beneteau Group plans to reduce their capacity by at least 20% to cope with the post-COVID crisis. It is expected that the smaller boat manufacturers and those in the superyacht segment will be able to maintain production activities at this year's level.

In general, though, taking into consideration all economic factors and the COVID uncertainty, the industry mood is not very optimistic. **PSR**

## Brazil/South America Report

By *Fabio Ferraresi*, Director Business Development South America



*Fabio Ferraresi*

### First Electric Highway Buses Start Operation in Southern Brazil

Intercity transportation of passengers by highway buses started in a new phase with the beginning of the operation of the first full electric plug in bus. It is Marcopolo Viaggio 1050 bus, assembled on BYD D9A 20.410 chassis, operated by Turis Silva. This initiative is also supported by EDP Smart, a division of Energy Solutions of EDP, a company of the electrical segment.

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

**PSR Analysis:** It is an interesting initiative, but as we have stated previously, electrical plug-in vehicles must still prove their cost viability. Additionally, the plug-in infrastructure is not in place yet. Other alternatives of electrical buses will compete with plug-in in near future.

### Ford Transit To Be Produced in Uruguay, Sold in Brazil

Ford announced this month the production of the LCV Transit in Uruguay; it will be sold in South America countries, mainly Brazil. The LCV will be built in partnership with Nordex, which belongs to the Antelo group. Both companies



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## Brazil/South America Report

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have invested around US\$ 50 million and the project will create 200 jobs. Nordex has extensive experience in the Uruguay market producing heavy trucks and passenger cars.

One of the advantages of assembling in Uruguay is that the import duties are much lower in Uruguay than in Brazil.

**Source:** *Estadão* [Read The Article](#)

**PSR Analysis:** It is good news that Ford is coming back to the South America commercial vehicle market after closing their truck plant in Brazil and keeping only the midsize pickup plant in Argentina. Transit has an excellent reputation here.

## Columbia Auto Market Maintains Growth Curve

The Colombian auto market has retained its growth curve in October by posting sales of 20,900 units, up 13.3% compared to September, a month which also grew 39% above August. Data source: Andemos

The Andemos said this recovery is due to the increase of procurement for “safe transportation” as well as reopening of the economy and ending of personal isolation.

According to Andemos, if no new measures requiring isolation are taken, then the reduction compared to 2019 will be around 30%

**Source:** *Autodata* [Read The Article](#)

**PSR Analysis:** As we stated in our Q3 2020 update forecast, Colombia is one of the countries most severely affected by COVID-19. It is very good to know that Colombia is restarting its growth cycle. **PSR**

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Akihiro  
Komuro

## Makita Engine Products To Be Discontinued in March 2022

Makita, a major power tool company, will discontinue the production of engine products such as engine mowers, engine chainsaws, and other engine products for garden equipment at the end of March 2022. The company will concentrate its resources on its mainstay rechargeable power tools and garden equipment, for which demand is expected to increase in the future. Annual sales of engine products account for less than 2% of the total.

**Source:** *The Nikkei*

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## Far East Report

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**PSR Analysis:** I visited Makita's booth at the Agri Week exhibition in October. Engine models were not on exhibit and had been removed from their catalog. HIKOKI had the same situation. I forecast that battery models will account for more than 95% of the total hand tool market in 2021.

This is a sign that battery models have evolved to a level comparable to engine models, even in the power-demanding products. The engine model has a better ability in terms of long hours of continuous operation, but this is not a reason to extend the life of the engine model. Long working hours can be done by simply replacing the batteries. The fact that these batteries can be shared across a wide range of products, from chainsaws to impact drivers, has prompted the company to seek user understanding by introducing sales methods that offer lower unit prices when multiple batteries are purchased at once. **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

### マキタのエンジン製品、2022年3月で生産終了

電動工具大手のマキタは園芸用機器のエンジン刈り払い機、エンジンチェーンソーなどのエンジン製品の生産を2022年3月末で終了する。今後は需要増が見込める主力の充電式の電動工具や園芸用機器に経営資源を集中するため、エンジン製品の年間売上高は全体の2%弱。

**出典: 日経** (一部筆者により元記事内容を改編しました)

**PSR 分析:** 筆者は10月に開催された農業Weekという展示会でマキタのブースを訪問視察した。すでにエンジンモデルは展示されておらず、カタログからも消えていた。HIKOKI (旧: 日立工機) のブースでも同じ状況だ。2021年にはハンドツール市場全体の95%以上をバッテリーモデルが占めると予想している。これは、パワーを必要とする製品でも、バッテリーモデルがエンジンモデルに匹敵するレベルまで進化したことを示している。長時間連続運転という点ではエンジンモデルの方が能力は上だが、だからといってエンジンモデルの寿命を延ばす理由にはならない。長時間稼働はバッテリーを交換するだけで可能だ。チェーンソーからインパクトドライバーまで幅広い製品で共有できることから、複数のバッテリーをまとめて購入すると単価が安くなる販売方法を導入するなど、ユーザーの理解を求めているという。 **PSR**

## Kawasaki to Spin Off Motorcycle and Engine Business

Kawasaki Heavy Industries said it will spin off its motorcycle and engine business in April 2021. The business is the only B2C business in KHI. By spinning off the business, the company aims to speed up decision-making and offer new products and services for consumers.

Specifically, the company is considering entering the new personal mobility business of electric three-wheeled vehicles. In addition, the business is facing challenges such as complying with environmental regulations, and the company

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## Far East Report

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*Until now, it appears that Kawasaki's motorcycle business has been a strategy to increase its market presence by catering to the needs of its core fans, rather than aiming for the top market share*

plans to reinforce cooperation within the industry and revitalize the market through joint development of electrification and advanced safety technology, as well as the sharing of functional components.

On the other hand, since the general-purpose engine business has a close relationship with the precision machinery and robotics business, after the spin-off, they will collaborate in the flexibility of management resources in the mass production business and in the agricultural machinery and lawn-related markets for hydraulic equipment and general-purpose engines. They will also collaborate on the development of near-future mobility that incorporates robotics and remote technology to create new businesses.

### Source: *Response*

**PSR Analysis:** Until now, it appears that Kawasaki's motorcycle business has been a strategy to increase its market presence by catering to the needs of its core fans, rather than aiming for the top market share. Of course, this brand atmosphere will continue to be maintained in the future, but it is almost certain that the company will be forced to respond to the trend toward EVs in the future, and this spin-off should be viewed as part of the company's efforts to create a structure that will allow it to respond to the market environment and demand that is likely to move significantly in the future.

It will also promote self-reliance and make it easier to accept outside capital. At the same time, the railway business was spun off at the same time, and Kawasaki Heavy Industries plans to accelerate its hydrogen and robotics businesses. **PSR**

## 川崎重工、モーターサイクル&エンジン事業を分社化へ

川崎重工業は2021年4月にモーターサイクル&エンジン事業を分社化すると発表した。同事業は、KHIの中で唯一のBtoCビジネスとなっている。分社化することで、意思決定のスピードを上げ、新たなライフスタイルの提案など、消費者向けの新しい製品・サービスの提供を目指す。具体的には新たな個人モビリティである電動三輪ビークル事業などへの参入を検討する。また、同事業は環境規制への対応をはじめとする課題を抱えており、電動化や先進安全技術などの共同開発、機能部品の共有化などを通じて業界内での連携を強化し、市場の活性化を図る方針だ。一方、汎用エンジン事業は、精密機械・ロボット事業との関係が深いため、分社化後、量産型事業における経営資源の融通、油圧機器・汎用エンジンの農機・芝関連市場向けで連携する。ロボット・リモート技術を取り入れた近未来モビリティ開発などでも連携して進めることで、新たな事業創出に取り組む。

**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:** これまでカワサキの二輪事業は、市場シェアのトップを狙うものではなく、コアなファンのニーズに応えることで市場での存在感を高める戦略だったように見える。もちろんそうしたブランドの雰囲気は今後も保たれるだろうが、大きな潮流として今後はEV化への対応を迫られるのはほぼ確実であり、この分社化は今後大きく動くであろう市場環境や需要に対応するための体制づくりの一環と見る

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## Far East Report

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べきだ。自立経営を促進し、外部資本を受け入れやすくなるという側面もある。同じタイミングで鉄道車両事業も分社化し、今後は川崎重工業は水素事業やロボティクス事業を加速させる方針だ。PSR

## Far East: South Korea Report

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

### Hyundai's Unmanned Cargo Plane Concept Aims for 2026

Hyundai Motor Co. has begun developing an unmanned aircraft for cargo transport and has announced the concept of "air cargo" to be commercialized in 2026. The company is already developing a personal aerial vehicle (PAV) that will be responsible for moving people around in urban areas, and this technology will be applied to cargo transport aircraft. It is envisioned as a transport aircraft that will carry more cargo than drones carrying small cargo.

They are inviting domestic companies in a wide range of aviation-related industries, such as aircraft design and flight control, to participate in the project. Hyundai says it will "accumulate mass production technology for aero-mobility and develop an industrial system for unmanned aircraft in Korea."

Hyundai's new development is an unmanned aerial vehicle with a fixed wing. The aircraft is expected to be able to take off and land vertically in anticipation of its use in cities. The aircraft is expected to be able to change the direction of its propellers as it travels. Hyundai plans to make up 50% of its future sales from automobiles, 30% from PAVs, and 20% from robots, with the small aircraft business as the second pillar of its business after automobiles. It has also announced a plan to start a 'flying cab' business in 2011 in partnership with Uber Technologies.

**Source:** *The Nikkei*

**PSR Analysis:** Only a large company like Hyundai can take on such a large project. Not only does the development itself require a lot of money, but it also takes a very long time to turn a profit. In the aviation space, many small ventures are now getting into the drone business but developing an aircraft to transport more cargo is not a challenge for small ventures. In that sense, Hyundai's challenge has the potential to become their dominant market in the future.

Of course, governmental cooperation will be necessary, including legislation, and the commercialization test itself will not be easy. The goal of five more years may seem a bit too optimistic, but the challenge itself is a welcome and noteworthy undertaking. PSR

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## Far East Report

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## 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

### 現代自動車が無人貨物機構想 2026年の商用化目標

現代自動車は貨物輸送用の無人航空機開発に着手し、2026年に商用化する「エアカーゴ」構想を発表した。都市部で人の移動を担う個人向け航空機 (PAV) の開発を既に進めており、この技術を貨物輸送機に応用する。小型貨物を運ぶドローンより多くの荷物を運ぶ輸送機をイメージしている。機体設計や運航制御など航空関連の幅広い業種の国内企業を対象に、11月22日までプロジェクトへの参加を募る。現代自は「航空モビリティの量産技術を蓄積し、韓国内に無人航空機の産業システムを育てる」としている。現代自が新たに開発するのは固定翼を持つ無人航空機だ。都市での活用を見越して垂直離着陸ができる機体を想定するという。プロペラの向きを変えながら航行するタイプになる見通しだ。現代自は未来の売上高構成を「自動車50%、PAV30%、ロボット20%」とする計画を持ち、小型の航空機事業を自動車に次ぐ柱に据える。米ウーバーテクノロジーズと提携して「空飛ぶタクシー」事業を23年に始める計画も発表している。

**出典:** 日経 (一部筆者により元記事内容を改編しました)

**PSR 分析:** 当然ではあるが、こうした大規模プロジェクトは現代のような大企業にしか挑戦できない。開発自体に多額の資金が必要であることはもちろん、着手してから利益を獲得するまでには非常に長い時間がかかるからだ。航空関連では現在多くの小規模ベンチャー企業がドローンビジネスに参入しているが、より多くの貨物を輸送するためのエアクラフトの開発は小資本のベンチャー企業ではチャレンジできない。その意味で、現代のこのチャレンジは将来彼らの独占的な市場になる可能性を秘めている。もちろん、法整備を含めて政府の協力も必要になるだろうし、商用化のテスト自体も簡単ではないだろう。あと5年という目標はいささか楽観視しすぎているようにも見えるが、チャレンジ自体は歓迎すべき、注目すべき事業になる。**PSR**

## Southeast Asia: Thailand Report

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

### Thailand's Sets Incentives for EV investment

The Thai government has introduced a new investment incentive program to encourage domestic production of EVs. The new incentives will exempt the payment of corporate tax for eight years for those who invest more than 5 billion baht (about 17 billion yen) to produce an EV.

Four types of key components, such as transmissions and regenerative brakes, will also be covered. The Thai government has set a goal of having 30% of the vehicles produced in Thailand be electric by 2030. The Board of Investment of Thailand (BOI) had a similar incentive program in place until the end of 2018. The reason behind the reintroduction is that the Thai government is dissatisfied with the lack of progress in EV production.

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## Far East Report

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*Thailand wants to make EVs the pillar of future car manufacturing, but many Japanese brands, led by Toyota, are currently pushing PHVs instead of EVs.*

Under the previous system, 26 plans were approved, including plug-in hybrid vehicles (PHVs), mainly from Japanese companies, but so far only two EVs from emerging companies have begun production. Toyota and Mitsubishi are also planning to produce EVs, but they are expected to put PHVs first. Japanese cars account for about 90% of Thailand's annual production of approximately 2 million units, but Chinese companies, which excel in EV production, are making inroads into the country.

**Source:** *The Nikkei*

**PSR Analysis:** Thailand wants to make EVs the pillar of future car manufacturing, but many Japanese brands, led by Toyota, are currently pushing PHVs instead of EVs. The view that Thailand is stressed by this may be correct in a way. China's Great Wall Motor, which already has a wealth of EV manufacturing know-how, will start operating a new plant in Thailand in 2021. SAIC Motor, which has already made inroads into the market, is also likely to have its eye on EVs, and Japanese manufacturers may fall from their current overwhelmingly dominant position if they miss out on the EV shift. **PSR**

## 東南アジア > タイ 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

### タイ、EV投資に新優遇策 2030年に生産の3割をEVへ

タイ政府が電気自動車 (EV) の国内生産を促すため、新しい投資優遇策を導入した。新しい優遇策は50億バーツ (約170億円) 以上を投資してEVを生産する場合、その事業で生じる法人税の支払いを8年間免除する。減速機や回生ブレーキなど4種類の基幹部品も対象にする。タイ政府は2030年に国内生産する自動車の3割を電動車にする目標を掲げる。タイ投資委員会 (BOI) は2018年末まで似た内容の優遇策を設けていた。再導入の背景として「EV生産が進まないことへのタイ政府の不満がある」という見方がある。旧制度では日本企業を中心にプラグインハイブリッド車 (PHV) も含めて26件の計画が承認されたが、これまでに生産開始したEVは新興企業の2件にとどまる。トヨタや三菱もEV生産を計画するが、まずPHVを先行させる見込みだ。

タイは年間約200万台の生産の9割程度を日本車が占めるが、足元ではEVを得意とする中国勢の進出が目立っている。

**出典:** 日経 (一部筆者により元記事内容を改編しました)

**PSR 分析:** タイはEVを今後の自動車製造の柱にしたいのだが、トヨタを筆頭とする日系ブランドの多くは現時点ではEVではなくPHVを推し進めている。これにタイはストレスを感じているという見方はある意味では正しいのかもしれない。すでにEVの製造ノウハウを豊富に持つ中国の長城汽車はタイで2021年に新工場の操業を開始する。すでに進出済みの上海汽車もEVを視野に入れているはずで、日系メーカーはEVシフトに乗り遅れたら、現在の圧倒的優位なポジションから陥落する可能性もある。 **PSR**

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## India Report

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



*Aditya  
Kondejkar*

### Production-Linked Incentive (PLI) Scheme Might Draw Investors

The Union Cabinet has approved an expansion of the Production-Linked Incentive (PLI) scheme to include 10 more labor-intensive industry segments. The PLI outlay for automobiles and auto components is the highest at Rs 57,042 crore over five years, roughly Rs 10,000 crore a year.

[Read The Article](#)

PLIs help localize manufacturing and promote significant indigenization levels from a supply chain standpoint. It can help the sector reduce imports and become a net-exporter. The scheme also comes at a time when OEMs across the globe are evaluating an option to China. Hence the scheme could help the industry attract fresh investments. The PLIs also can help OEMs improve economies of scale.

A foreign player like Hyundai has led in the exports of passenger vehicles, exporting 145,000 units during April-December 2019, and Toyota plans to invest close to Rs 2,000 crore for the development of electric technology and components. Kia is planning to make India an export hub. Daimler has invested heavily in R&D and has achieved 90% localization of the products it manufactures in India under the Indian brand Bharat Benz.

Coupled with BS-VI emission transition, the PLI scheme will act as a booster for the struggling M&HCV industry. For EVs, the battery is a key component, establishing a battery manufacturing base in the ever-growing Indian economy, aided by a linked government subsidy, India will play a pivotal role in the global EV transition.

"I believe this is an orbit shifting initiative. Will bring investment, get scale, create jobs and make Indian manufacturing globally competitive," said Pawan Goenka, managing director, Mahindra and Mahindra Ltd. **PSR**

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## Russia Report

By *Maxim Sakov*, Market Consultant, Russia



*Maxim  
Sakov*

### Russia To Start Making Diesel Engines for Passenger Cars

Today, there is no mass production of diesel engines for passenger cars in Russia. Production of the last such project, the turbodiesel ZMZ-514 for UAZ SUV, was halted several years ago.

But next year Russia will resume mass production of diesel engines for passenger cars. The PSMA Rus plant in Kaluga will make 1.6-liter diesels of the DV6 family, designed by French PSA. The production start is planned for mid-2021.

Locally produced engines will be installed on the LCV model of Peugeot and Citroen made in Kaluga, including the compact van Peugeot Partner, which is getting prepared to production start now. At the moment such diesels come from France. [Read The Article](#)

**PSR Analysis:** With the plans to ban diesel engine production in Europe, international OEMs are looking for places to relocate its production out of the EU. At the same time, the Russian automotive industry, with the State support, is trying to pull together as many engine technologies as possible. PSR

### AutoVAZ Shows Best Monthly Sales for 6 Years on October

During October 2020 AutoVAZ increased sales of Lada cars (including the Niva brand) by 22.5% to 37,030 vehicles. This is a best result since October 2014, when the company sold 37,788 cars.

Marketing and sales vice-president of the OEM Mr Morne has explained demand and sales growth by State and own support programs.

AutoVAZ plans to work Saturdays and holidays during November to meet low inventories of cars among dealers. [Read The Article](#)

**PSR Analysis:** It appears that the grim forecast regarding automotive production in Russia related to the epidemic is not going to come true. However, there is one more factor in the growing demand. The devaluation of national currency will force people to spend their Rubles before they lose a big part of its value. PSR

### KAMAZ Starts Development of Euro-6 Engine

Project "Tibet" is going on in R&D center of KAMAZ. Within this project, OEM is performing work on creation of an inline 6 cylinder engine, the KAMAZ-910.40 that meets the Euro-6 Emission standard. The initial prototype of the engine has been assembled.



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## Russia Report

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*KAMAZ 910.40 is a modification of the 910.10 engine, developed by the OEM in co-operation with Liebherr.*

New engine should have NOX reduced in 5 times, particles – in 2,5 times, ammonia – in 2,5 times, comparing to its predecessor. There are also stricter requirements to engine diagnostics.

According to R&D specialist Mr. Gordeev, this is most complicated process of upgrading emission standards in KAMAZ. Earlier upgrades to E-4 and E-5 were not so challenging. Within this project OEM has to match engine design, optimal volume, right components such as turbo, EGR, exhaust gases neutralization system.

At the moment, the prototype is being tested. It includes EGR system adaptation, and the EGR alone cannot reach required Euro-6 parameters, so it will be complex solution – NOX level will be reduced by EGR, the rest of exhaust will be cleaned by catalytic system.

The project is expected to produce whole range of 13-liter engines from 420 to 560 hp. No major upgrades of the production line is expected since the new components will be offered as add-ons. **Read The Article**

**PSR Analysis:** KAMAZ 910.40 is a modification of the 910.10 engine, developed by the OEM in co-operation with Liebherr. Earlier, KAMAZ made many attempts to create its own exhaust cleaning system conforming Euro-6 standards in co-operation with many world leaders, including Cummins. At that time, the parties were talking about SCR technology. As soon as the alternative EGR system was selected, these attempts were not continued. **PSR**

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