

Top Stories

NA Tiller Growth

Battery Show Notes

NA Economy Forecast

Brazil Eyes EV, New Trucks

China Replaces Diesel Buses

EU M/C Market Recovers

EU Priority: Stimulate Investment

Hydrogen Conversion Package

Korea Cuts Auto Tax

Harley Targets Asia

India Promotes EVs

Tractor Plant Takeover

Moscow Oks Driverless Vehicles

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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**. **www.powersys.com**

Power Systems Research: Data....Forecasts...Strategies

Data Point: Tillers

339,912


By Carol Turner, Senior Analyst, Global Operations

This is the estimate by Power Systems Research of the number of tillers that will be produced in 2018 in the United States and Mexico. Tillers are used to cultivate soil to prepare a smooth area for planting. They are self-propelled, walk-behind machines which are used in home gardens or on small farm areas. There are several types of tillers: front tine, rear tine, and mini-cultivators.

With combined plant totals of 50.5%, MTD leads in production of tillers in North America. In second position is Schiller Grounds Care with 29%, and third is Husqvarna Turf Care with 7%. About 84% of the tillers in North America are produced in the United States, and 16% in Mexico.

During 2016-2017, production of Tillers in North America decreased nearly 6.5%. Production is expected to gain 2.5% during 2017-2018. There is a steady demand for tillers in both the commercial and residential sectors. Driven by an acceleration in GDP growth, consumers will be increasingly willing to spend their disposable incomes on durable goods, landscaping services, and recreational activities, thereby boosting demand for both consumer and commercial outdoor power equipment. Expect production to expand up to 5% through 2020.

This information comes from two proprietary databases maintained by Power Systems Research: **EnginLink™** and **OE Link™**. **PSR**

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For commercial vehicles, the issues are quite different: lifetime costs and operating efficiency are crucial.

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Electric & Hybrid/Battery Show

By *Dennis Huibregtse*, CEO of Power Systems Research

*Prospects for electric and hybrid drive systems in commercial vehicle and off-road applications will be discussed in more depth by Dennis Huibregtse at the upcoming **Electric & Hybrid Vehicle Technology Expo** in Novi, Mich., on Sept. 12, 2018.*



A span of roughly 15 years has witnessed the development and commercialization of light passenger vehicles with battery-electric and hybrid drivetrains. OEMs have launched numerous models to varying degrees of commercial success, with the earliest examples appealing to a narrow market niche of environmentally conscious and “ultra-frugal” consumers, but few others. As technology evolved, more practical models found somewhat wider appeal among short-haul commuters and others that typically travel relatively limited distances.



*Dennis
Huibregtse*

For such buyers, day-to-day fuel cost savings and convenience make them an attractive option to vehicles with internal combustion (IC) engines. Those considerations outweigh the combined disadvantage of higher acquisition cost and lower resale value at trade-in time, again

demonstrating that consumer purchase decisions are often made on emotional appeal rather than ownership costs.

For commercial vehicles, the issues are quite different: lifetime costs and operating efficiency are crucial. These vehicles are essentially tools used to generate revenues and, in most cases, profits. The powertrain is an integral element of this tool with the choice of powertrain driven by several factors: total cost of operation (TCO); feasibility, including operating range, complexity and maintenance issues; refueling/recharging infrastructure considerations; regulatory and compliance issues (emissions, noise, safety).

Not surprisingly, then, there is extensive development work focused on integrating electric-based drive systems into the medium and heavy commercial vehicle (MHV) sector. Vehicle OEMs, component suppliers and fleet customers are actively engaged in various electrification partnerships.

It has been noted on these pages that the IC engine is not going to go away any time soon. That still holds true; electrification will not completely replace the IC engine in the foreseeable future. But various battery-electric vehicles (BEVs), hybrids, and possibly fuel cells, all are likely to play a role in MHV markets. They will supplement or replace IC engines in cases where the TCO for an alternative-powertrain vehicle is lower than for the equivalent vehicle with an IC powertrain in a similar type of service. Once that TCO threshold is

[↑ Click Here To Go To Page 1](#)

Electric & Hybrid/Battery Show

Continued from page 2



crossed, the advantage of the BEV (or hybrid or fuel cell) eventually will lead to that becoming the powertrain of choice.

There are thousands of battery-electric urban transit buses in operation currently and recent reports indicate that many of these are already at TCO levels lower than those for equivalent IC-powered buses. Newly developed BEV refuse trucks coming to the market are also said to be capable of operating at or below that threshold on urban collection routes. Both are environmentally sensitive applications, so this appears to be a compelling alternative for operators of such vehicles.

I'll discuss prospects for electric and hybrid drive systems in commercial vehicle and off-road applications in more depth at the upcoming **Electric & Hybrid Vehicle Technology Expo** in Novi, Mich., on Sept. 12, 2018. Hope to see you there **PSR**

Global/North America Report

By *Yosyf Sheremeta*, PSR Director of Product Management & Customer Experience.

Strong Economy Indicates Another Year of Solid Growth



(Second of Two Parts)

SUMMARY. During Q2 2018, the economy remained stable and economic conditions in the region still are favorable, most industries are doing well, and the short-term outlook remains positive to flat for most market segments. We expect such strong conditions to last at least another 12 months.

*Yosyf
Sheremeta*

At the same time, there will be some minor differences among market segments, especially those that are consumer oriented. Additionally, we have seen that some markets have bottomed out and have started a new up-trend in Q1 2018; this trend should further strengthen in 2018.

Going forward, we expect future growth will be mainly tied to economic factors and performance, and not political speculations, either global or domestic, as in past years. However, some risks remain on the horizon due to possible global trade disagreements, tariffs and policies.

The general economy in the U.S. is entering its ninth year of growth, and markets are performing well. This has been an uncommon economic cycle with a very prolonged, low and slow recovery. At the same time, we see that some segments experienced a series of shorter cyclical growth patterns within the growth cycle.

[↑ Click Here To Go To Page 1](#)

Global/North America Report

Continued from page 3

*The Ag sector
bottomed in 2016
-2017, and we
forecast it to gain
stronger recovery
speed in 2019-2020.*

We believe slower growth for some products will continue for the next year or two. For example, the Agricultural segment is finally coming off a major decline (2014-2016) and is nicely positioned to regain ground in 2018; however, activities in 2017 were somewhat flat with no significant activities to boost the recovery across the segment. The Ag sector bottomed in 2016 -2017, and we forecast it to gain stronger recovery speed in 2019-2020.

The job market is very strong, and combined with strong housing starts, favorable and low interest rates and extra cash in the hands of the consumers, 2017 turned out to be an even stronger year overall, compared to 2016. Additionally, after the implementation of the tax reform in the US, consumers and companies alike are promised more cash in their pockets, which should boost spending and investments even more and sustain the high level of demand for goods and services.

As we projected in 2015, the Federal Reserve Bank started rate increases in Q4 2015; since then the rate was increased six times, and currently is 1.75%

Going forward, we expect two more rate increases in 2018 and two more increases in 2019. However, the number of rate increases will greatly depend on inflation rates and economic performance, as well as new policies of the Trump Administration and the new Federal Reserve Bank chairman. We may see even more rapid rate increases if inflation becomes a significant concern, especially in 2019

Nevertheless, we do not think rate increases will have any significant immediate impact on most segments in the region during 2018 or 2019.

While consumer spending is still strong, we believe spending and consumer confidence might reach its peak by end of 2018 and early 2019. Current strong consumer spending levels are driven by low interest rates and the strong job market. Employment statistics were strong over the past few years and carried over into 2018. The reports from June 1, 2018, showed a record low unemployment rate in May at 3.8%. Employment continued to trend up in several industries, including construction and mining.

In May, the labor force participation rate, at 62.7%, and the employment-population ratio, at 60.4%, showed little change. We project the labor market will remain strong in 2018 with a projected unemployment rate of 3.9%.

Employment in construction continued an upward trend in May (+25,000) and has risen by 286,000 over the past 12 months. Within the industry, nonresidential and commercial trade contractors added 15,000 jobs that month, which signals improvement in infrastructure spending. The Mining sector lead the way, adding 6,000 jobs in May. Employment in mining has risen significantly by 91,000 jobs since reaching a recent low point in October 2016; most of the gain has come in support activities for mining. This is an encouraging sign, especially for heavy construction/mining equipment OEMs.

[↑ Click Here To Go To Page 1](#)

Global/North America Report

Continued from page 4



Across all market segments, we expect overall total equipment production numbers to increase in 2018, gaining 0.6% from 2017, slightly higher than last quarter projections by 0.3%. We see an almost flat to slightly lower level of overall activity in 2019, as the overall economy reaches its peak in productivity, as well as demand.

However, we do expect tax reform implementation to give a major boost to the U.S. economy in the long run, but not in 2018. At the same time, we have already started to see upbeat interests from the corporate world and activities related to tax reform, such as new investment plans, job creation and new production capacity planning. On the opposite side, current trade rhetoric and proposed policies most likely will bring some disruptions in the market.

During the last few quarters, we have seen a significant increase in construction equipment activities. Major OEMs like CAT, Deere and Cummins showed increased sales and orders in 2017, and we expect that trend to continue in 2018. Again, trade rhetoric might have an impact on these OEMs in the future.

Production in 2016-2017 reached record levels for some segments such as Minivan/SUVs and Passenger Cars, with very strong demand levels throughout the region. However, we believe these markets peaked in 2017, and we will see a slight decrease in production numbers in 2018

We saw a slight drop in demand for consumer products, starting at the end of 2016. This slower demand carried forward into 2017, but the overall level of demand remained stable. We project these markets to be flat this year. Most of the decline is cyclical and is mainly due to markets having reached their peaks in 2016-2017. At this point, over the mid-term and long-term, we do not expect any major or significant declines in any of the segments.

Across other markets, we forecast that short-term growth is expected to be flat to slightly positive at low-single digits annually for some segments such as Construction and Industrial, with the mining sector likely to experience much stronger growth.

The Agricultural segment has not yet delivered the promised recovery, but we expect activities to improve in 2018-2020. Other segments, such as Passenger Cars, and Minivan/SUV, will experience a slowdown and will most likely turn into negative territory by the end 2018.

AGRICULTURAL. Overall, we believe 2018 will be a slightly positive year for the industry in terms of overall equipment growth in production units, but the market will not completely recover for another few years. As already mentioned, lower powered equipment is growing and far outpacing heavier equipment production trends. The trend in the Agricultural segment in North America reflects a situation similar to what we see in other regions, particularly in Europe.

We believe the Ag market bottomed in 2016-2017, and we see 2018 promising to be a year of recovery. Again, we do not see any rapid recovery at this point, but rather we see a slow and positive trend going forward.

[↑ Click Here To Go To Page 1](#)

Global/North America Report

Continued from page 5

We see very similar trends in growth for [the Industrial] segment, with a gain of 3.0% in 2018 over 2017. This is in line with our previous quarter projections. The overall growth dynamic is closely mirroring the Construction segment.

CONSTRUCTION EQUIPMENT. While this segment really stood out and showed steady performance starting in 2010, we believe the Construction sector bottomed out in 2016, and 2017 started a new trend with fresh new cyclical growth. Furthermore, an increase in activities within the sector in 2017 has given the market a boost. Our most recent projection is rather flat to slightly positive at 4.0% in 2018, compared to 2017; this is slightly higher than our projections from last quarter (at 3.8%).

INDUSTRIAL. We see very similar trends in growth for this segment, with a gain of 3.0% in 2018 over 2017. This is in line with our previous quarter projections. The overall growth dynamic is closely mirroring the Construction segment. The main drivers for the segment are material handling and forklift applications, where the demand remains flat.

MINING EQUIPMENT. This sector suffered major declines during 2013-2016; however, a strong level of activities and developments in 2017 give the industry much needed hope and optimism going forward.

PSR does not project any rapid recovery of machinery equipment for the mining sector, due to the prolonged market decline and stagnation. Instead, it is shaping up to be a long but steady recovery. It will take several years for the industry to reach its previous production levels.

Consumer sectors, including **LAWN AND GARDEN, PASSENGER CARS, MINIVANS AND SUVs** as well as **RECREATIONAL PRODUCTS** continue to benefit from the strong economy. These segments performed very well in 2016-2017.

We have already started to see a trend reversal for the Passenger Cars and Minivan/SUVs segment, which has experienced a slight slowdown in demand since late 2016 and 2017. The overall sales decline was just 1.8% in 2017 vs 2016 and we project an additional 2% decline in 2018.

Overall, for 2018 we expect the Passenger Car segment production to be flat to slightly negative at -3.0%, as the average lifespan of a vehicle remains above 11.6 years. In 2015, the average life of a vehicle was 11.4 years, it climbed to 11.6 in 2016 and is expected to continue to rise slowly in the coming years.

The Minivan and SUVs segment showed very high growth over the past few years; however, we believe 2016 was a peak year. For example, while the overall sales of minivans in 2016 grew 6% over 2015, the demand in 2017 was flat. The production rates for 2018 will be negative at -2.9%, which is still a very healthy overall production number in comparison to record high levels and demand in previous years. High replacement rates will play an important role and will drive overall growth. The smaller size SUV market is rapidly gaining momentum vs. large SUVs with many products coming from major global OEMs. We expect this niche market to continue to develop and be solid in the next few years with many more new product offerings from major OEMs.

[↑ Click Here To Go To Page 1](#)

Global/North America Report

Continued from page 6

Another point worth mentioning is the adoption of electric vehicles, which has been gaining ground very rapidly. Most OEMs have or will have solid electric product offerings within a few years, and we expect to see a more rapid increase in sales of electric vehicles. At this point, the overall share of electric vehicles is still insignificant; however, we expect that to change over the next 5-10 years.

We believe the local market will remain healthy, but there will be no growth in the next few years.

LAWN AND GARDEN as well as **RECREATIONAL VEHICLES** are still showing steady demand, and the growth trend will remain in positive territory in 2018, shifting into a slight downward trend into negative territory in 2019. The key drivers for this segment are solid housing starts and a strong economy.

MEDIUM AND HEAVY VEHICLES. In 2018, medium and heavy commercial truck production is expected to increase by 14.7% over last year driven by extremely strong class 8 demand along with continued strength in the medium duty (class 4-7) segment. Production levels for class 8 trucks are expected to increase by 26.6% this year while medium truck production is expected to remain strong and increase by 1.3% over 2017.

POWER GENERATION. While the overall market showed healthy growth over the past few years, the future demand in the segment will slow down a bit but will remain steady. Currently, we forecast the segment to be 2.1% growth in 2018 vs 2017 and almost flat in 2019 at 1.3%.

The main demand will come from small to mid-level units. However, high horse powered sets with lower speed turning engines (RPM) declined in 2016, as much as -15% - 20%. Production volume in 2017 was flat with no significant recovery in those products; this is mainly driven by the overall state of the economy in the region and worldwide. **PSR**

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Fabio Ferraresi

Agribusinesses Invest in Truck Fleets

Agribusiness are starting to improve their fleets to reduce the impact of freight price increases on their profit margins. Companies like COAMO and JBS have closed big deals on new trucks for their fleets.

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

Brazil/South America Report

By *Fabio Ferraresi*, PSR Director, Business Development, South America

[↑ Click Here To Go To Page 1](#)

Brazil/South America Report

Continued from page 7



PSR Analysis: This movement is positively impacting the Heavy Duty segment, in classes 7 and 8. Usually agribusinesses operate with a mix of their own fleet and contractors. Both sides are investing in new trucks, based on the positive mood in the transportation industry following the recent truck driver strike and the threat of reduced margins for agribusiness players caused by higher transportation costs.

Scania To Produce New Generation of Trucks by 2019

Scania is expected to bring its new generation of trucks previously launched in Europe to Brazil in February. The complete lineup will be launched at the same time, with 10% - 15% higher prices, but with the promise to reduce diesel consumption by 12%. The current cabins P, G and R, with 7 options will be replaced by 19 options in the new models. The new chassis contains high alloy steel components to make it lighter. The engines will be the Euro 5 version of XPI family, which changes only the post-treatment component from the European, Euro 6, version.

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

PSR Analysis: Scania's strategy seems to be to establish a global production platform in Brazil, then export this platform to countries, such as Russia. The flexibility of the new platform, plus investments in its production line, will enable Scania to more easily export to multiple markets. This should boost the agribusiness in Brazil and other South America countries.

Cummins To Introduce Electric Buses

Cummins has started to offer electric powertrains to its customers in the city bus segment. Company representatives in Brazil say that incentives may be used to open the market for alternative propulsion. If successful, the company would then deploy the strategy globally to become a complete powertrain solution provider rather than merely an ICE provider.

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

PSR Analysis: This initiative enables players such as MAN/VW and other well established companies in the bus segment in Brazil to compete with BYD on bids and proposals. The Chinese company, located in Campinas, has made significant inroads in alternative propulsion solutions; the long existing players now have an alternative to compete. The segment of city buses presents some EV vehicles operating side by side with ICE units. It will be the first segment to evolve from concept to actual EV products in Brazil.

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Brazil/South America Report

Continued from page 8

Fras-le Acquires Fremax Bakes Brand

Brazilian Fras-le, one of the global leaders in friction material, has acquired Fremax, a company of 580 employees and US\$ 50 Million in revenue. Fremax produces discs and drums for OEMs and the aftermarket in the Light Vehicle segment.

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

PSR Analysis: As part of a strategy to grow by acquisition, Fras-le made an important move to complete its product lineup for Brazil and South America. It has to be analyzed from the perspective of other recent acquisitions in Uruguay, Argentina and the investments in India and China. Fras-le is pushing hard to bring the same global success of friction materials to other components that the group delivers. **PSR**

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China Report

By *Qin Fen*, PSR Business Development Manager-China.

China MEE to Replace Diesel-powered Buses by 2020



Qin Fen

A policy draft circulated on the internet by MEE (Ministry of Ecology and Environment), China's environment authority, says the government is planning to replace diesel-powered urban buses in six cities (Beijing, Tianjin along with four other capital cities, Shijiazhuang, Taiyuan, Jinan and Zhengzhou) with New Energy buses by 2020.

Sources: *Sina* [Read The Article](#)

PSR Analysis: Among the many measures to curb air pollution from vehicles, one of the most important is converting urban buses in these six cities to all battery-powered units by 2020. NS 3 trucks in six provinces where these cities are the capital city also will be phased out, starting in Jan. 1, 2019. We see demand for diesel-powered buses absolutely dropping. For trucks, it's more complicated; with NS 3 trucks phasing out, demand is going up; but as railway takes more share in long-distance transportation, demand in coal transportation in the long run is going down. **PSR**

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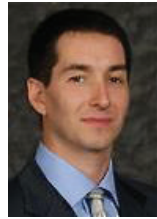
[↑ Click Here To Go To Page 1](#)

All major markets are showing good economic indicators and low unemployment rates, which are driving the success of the motorcycle industry.

Europe Report

*By Emiliano Marzoli, PSR Business Development Manager-Europe
Christopher Bamforth European Market Analyst, contributed to this report*

Motorcycle Market Recovering from Negative 2017



*Emiliano
Marzoli*

Read The Article

Motorcycle registrations in the EU showed a strong 7.2% growth in H1 2018, according to ACEM (European Association of Motorcycle Manufacturers). The market in Europe is climbing back to its normal level, following a 2016 marked by a record fourth quarter that translated in weaker sales in 2017. Now that the Euro 4 effect is fading, growth is back on track, thanks also to a growing European economy.

All major markets are showing good economic indicators and low unemployment rates, which are driving the success of the motorcycle industry. Italy remains the largest market, followed by France, Germany, Spain, and the UK. The UK is not performing as well as the other large markets, because it has been slowed by uncertainties caused by Brexit.

Based on PSR research, electric bikes and scooters are showing the best growth. Another segment that is growing very fast is the mid-size bikes from 126cc to 500cc. The success of the new BMW G310 series, KTM 390 series and other models that were launched in H2 2017 is pushing the success of this segment. Scooters from 51cc to 125cc also are showing good growth; however, bikes and scooters in the 501cc to 1000cc range are suffering.

While registrations in the EU are very positive for 2018, production is declining. With the introduction of Euro 4 emissions regulations mopeds have become increasingly expensive, and many companies have decided to move their production to emerging countries in order to save their margins. At the same time, electric scooters have become more competitive and represent a fascinating alternative to 50cc mopeds, considering the many different incentives schemes in place in Europe. —**EM**

EU Priority: Stimulate Investment

Read The Article

During the recent 85th Euroconstruction conference, Jyrki Katainen, the vice president of the European Commission, stressed the importance and the need for investing in the “circular economy” and in artificial intelligence.

[↑ Click Here To Go To Page 1](#)

Europe Report

Continued from page 10

Circular economy refers to reusing and recycling materials. As we are made more and more aware, the world's finite resources are not unlimited and proper consideration for recycling and re-using them is vital. Artificial Intelligence (AI) is believed by the European Commission and others that these applications could revolutionize the way we are doing things. Both of these are grouped together when it comes to the construction sector.

"The construction sector is at the very core of the modernization of the European economy. Environmental challenges – not only challenges but also opportunities – the circular economy and artificial intelligence are the driving forces, and the construction sector is a facility for all the developments what we have seen," Katainen said.

These innovations tie in well with the forecast presented during the Euroconstruction conference. Overall European construction is forecasted to be "growing well" off the back of low interest rates, economic growth and "pent-up needs." This growth is expected to remain solid, backed up by lower levels of unemployment, keeping low interest rates and overall confidence in the market. As a result of these encouraging factors, it is assumed that tax revenue will increase, which can be reinvested into the construction industry. In addition to these, urbanization, migration and aging of the population also are important factors in viewing the construction segment.

Growth is forecasted to continue in 2019 and 2020 but at slower rates than 2018. Hungary, Poland, Ireland and Portugal are expected to grow at a faster pace than the other member states. Hungary is forecasted to be the strongest growth market at close to 12% and 7% to 8% growth is expected for the other countries. Nordic countries, which have been showing good signs of growth, are predicted to slow down in 2019 (2.5-3.9%) and 2020 (0.5%) but still remain positive —**CB PSR**

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The hydrogen internal combustion engine (ICE) has not been popular because the technology to deliver a cost-effective product has not been available.

Far East/Southeast Asia Report

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

Far East: Japan

Hydrogen Conversion Package Available for Diesels



*Akihiro
Komuro*

What if there were a conversion package that would enable your diesel engine to run on hydrogen? A German company says it has a product that does this.

The hydrogen internal combustion engine (ICE) has not been popular because the technology to deliver a cost-effective product has not been available. However, a new startup in Germany founded by former BMW engineers with extensive hydrogen ICE experience may have developed a solution to this problem.


The company, Keyou, says it can provide today's diesel engine makers with the technology to simply convert a diesel engine to run efficiently on hydrogen. They help bundle a supply of hydrogen with HDVs (Hydrogen Diesel Vehicle). Dr. Kimitaka Yamane, with over 40 years of HDV development experience, is collaborating with Keyou to bring HDVs to Japan.

Today, battery-powered electric vehicles (BEVs) offer attractive designs, fast acceleration, and low operating costs, but adoption in the commercial sector lags far behind consumer vehicles.

There are several reasons. Batteries suffer from low energy density, and batteries large enough for heavy loads and long trips are often so heavy and so large they reduce payloads. Smaller batteries reduce weight, battery costs, and allow for greater loads, but these require long and frequent recharging times.

The answer to this problem could be fuel cell electric vehicles (FCEVs) which use hydrogen as a power source. Unfortunately, FCEVs are expensive, have frequent down times, are produced only in small volumes and lack a hydrogen supply infrastructure. However, diesel engine makers soon may be able to offer a much more viable alternative energy vehicle using hydrogen-powered diesel engines.

Source: *Interview with Mr. Paul LaValla, Yamane Hydrogen Energy Research Laboratory, 17 July 2018*

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

Far East/Southeast Asia Report

Continued from page 12

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PSR Analysis: This hydrogen diesel IC engine technology has great potential. Dr. Yamane Kimitaka, a foremost expert in hydrogen energy research, is proactively promoting Keyou's technology. This technology is worth considering by engine manufacturers since more than 90% of trucks use diesel engines, and since this technology overwhelmingly meets the standard value of EURO VI. In Japan, industry, government, and academia actively are seeking ways to develop this hydrogen potential. **PSR**

Far East: South Korea

Tax on Passenger Car Purchases To Be Cut to 3.5%

The government has approved a tax cut on purchases of passenger cars, in a bid to stimulate sluggish private consumption and business investment.

Under the latest stimulus measure, endorsed by the cabinet, individual consumption tax on purchases of passenger cars will be reduced to 3.5% from 5% until the end of this year.

The tax cut applies to passenger cars that were produced after July 19, finance ministry officials said.

The ministry said the tax cut would lift economic growth by 0.1 percentage point on a quarterly basis. The tax cut came as South Korea's economic growth appears to be under pressure. The Bank of Korea said recently that the South Korean economy slowed slightly in the second quarter from three months earlier due mainly to sluggish facility and construction investment.

Source: *Yonhap News Agency* [Read The Article](#)

PSR Analysis: The Korean automobile industry is facing a very difficult situation. BMW Korea has suffered engine fires caused by hardware problems. Hyundai Motor has posted a first half decline of 37.1% in operating profit following hits by a strong Korean currency and higher costs. The profit decline came in spite of higher sales. According to the consolidated financial results for the January-June period announced by Kia Motors, operating profit fell by 16.3% from the same period last year. Although sales increased by 0.8%, ordinary income dropped 25.4% and net income decreased 33.9%. Demand stimulated by tax cuts may be effective, but it will remain short term and have limited impact. It is uncertain how Korean brands will survive in the rapidly changing global market. **PSR**

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Far East/Southeast Asia Report

Continued from page 13

Harley-Davidson has been caught in the crosshairs of President Donald Trump's trade policy after announcing plans to move part of its production out of the U.S.

Southeast Asia: Thailand

Harley-Davidson Targets Asia With Smaller Motorcycles

Harley-Davidson is seeking to expand sales in Asia by broadening its lineup of small motorcycles. While the American producer of large “hogs” has seen its home market slumping and its U.S. earnings worsening, it expects growth in India and other parts of Asia. The U.S. now accounts for 60% of its sales.

Harley-Davidson has been caught in the crosshairs of President Donald Trump's trade policy after announcing plans to move part of its production out of the U.S. The company intends to expand its global production and sales networks by spending \$225 million to \$275 million in capital investment by 2022.

Harley-Davidson aims to capture more business in Asia. By teaming up with local motorcycle makers, the company plans to develop bikes with smaller engines of 250cc to 500cc, which are the kinds of vehicles most in demand there.

The company operates plants in India and Thailand. It will fire up a new Thai motorcycle factory later this year.

Source: *Nikkei Asian Review* [Read The Article](#)

PSR Analysis: To establish a presence in the Asian region, Harley is moving away from its large displacement engines and is offering engines in the 250cc to 500cc size. It also is testing a EV bike. This reflects the fact that the motorcycle market in Asia is undergoing a major change. In many South East Asian countries, including Thailand, riding Harley is a kind of status. It will be interesting to see how they meet local demand as they enter this market. **PSR**

Regional Show Information

INTERMAT ASEAN Planned for Bangkok Sept. 6-8, 2018

INTERMAT ASEAN will be held in Bangkok, Thailand. Sept. 6-8, 2018. This Southeast Asian trade exhibition on construction and infrastructure, focuses on five key sectors - Earthmoving & Demolition, Roads, Minerals & Foundations, Building Industry and Lifting, and Handling & Transportation. Providing opportunities to explore the latest trends and to source products, the trade exhibition brings together more than 5,000 leading companies and brands in a strategic location – Bangkok, Thailand.

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

Regional Show Information

Continued from page 14



For more information:

- [INTERMAT ASEAN](#)
- [Download Show Brochure](#)
- [Download Post-Show Report 2017](#)

Concrete Asia To Be Held With INTERMAT ASEAN

Concrete Asia, the international exhibition for the Asian concrete sector, showcases a comprehensive range of concrete and cement products, technologies and techniques. Co-located with INTERMAT ASEAN, the trade exhibition for the building and construction industry, Concrete Asia aims to target over 4,000 industry professionals

For more information:

- [CONCRETE ASIA](#)
- [Download Concrete Asia Brochure](#)
- [Download Post-Show Report 2017](#)

India Report

By *Jinal Shah*, Regional Director, South Asia Operations

Government Plans To Promote EVs



*Jinal
Shah*


The policy, advocating minimal subsidies, is expected to be announced at a global e-mobility summit Sept. 7.

Read The Article

PSR Analysis: Looking back, the Indian government's interest in electric vehicles started in 2013, when it unveiled the National Electric Mobility Mission Plan (NEMMP) 2020, followed by the launch of the FAME scheme, now in Phase II. It appears that a fresh policy will be rolled out in September.

However, government's flip-flop of policies has muddled the situation for stakeholders, and many OEMs are waiting for a concrete EV policy before entering the Indian market. Interestingly, many progressive states are spearheading the EV revolution with better guidelines.

Despite the continued push for adoption of electric mobility, India faces many challenges to facilitate a smooth and swift adoption of electric vehicles at a mass level. The need today is for actionable solutions and guidelines to boost the EV eco-system

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

India Report

Continued from page 15



BEML Launches India's First 150T Electric Dump Truck

Bharat Earth Movers Ltd (BEML) has launched the country's first 150T electric drive rear dump truck. The company's new product is expected to address the growing demand for higher capacity equipment in the mining industry. [Read The Article](#)

PSR Analysis: BEML Ltd, a public sector company under the Ministry of Defense, has shown its technical prowess compared to global brands. The eco-friendly dump truck will be an import substitution.

Coal mining is by far the largest application for dump trucks in India, although the machines also are used in quarrying and other mining activities. The demand for dump trucks has been erratic; however growing power generation requirements and raw materials demand will drive the demand going forward.

Two-Wheel Forum sponsors conference: Riding the World's Largest Two-Wheeler Market. What's Next on the Horizon?

Jinal Shah, Power Systems Research Regional Director, South Asia Operations, will discuss the challenges and opportunities for the Indian Two Wheeler Industry associated with BS VI.

WHAT: Road Ahead for 2020. The Two Wheeler Forum (TWF) is a conference dedicated to the Two Wheeler Sector in India. Attendees come from all corners of the Two Wheeler space (Two Wheeler Manufacturers, Auto Component Suppliers, Government, Auto Associations and more). TWF's 4th event for the automotive sector expects more than 250 senior level executives and more than 40 industry experts.

WHERE: The Leela Gurgaon Hotel

WHEN: Aug. 30, 2018

CONTACT: www.twforum.in Rohit Dewan, Project Director, rohit@threefold.in, 9811152332 **PSR**

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The Russian Railways company says that this year it has renovated 5,000 km of railway. The planned budget of renovation in 2018 is about US\$ 1 billion.

Russia Report

By *Maxim Sakov*, Market Consultant, Russia

Rostech Takes Over Tractor Plants



Maxim Sakov

Tractor Plants and its debt are being taken over by Rostech, the State corporation. In the future, Rostech will select a private investor for the civilian assets of Tractor Plants, but the military products division will continue to be operated by the State. **Read The Article**

PSR Analysis: In recent years, the Tractor Plants operation has experienced financial problems, and finally the individuals, who owned the OEM failed to service current debts. Thus, ownership was taken over by the main debtor (State Bank). Currently the shifting of the plants from the bank to the State industrial corporation is part of the current trend of nationalization of large industrial assets in Russia.

Moscow Authorizes Development of Driverless Transport


The agreement was signed by city officials, Yandex, GAZ Group, KAMAZ, and NAMI (The Research Institute of Automobile and Automobile Vehicles). The 5-year agreement calls for the implementation of driverless technologies on several kinds of transport, and development of technical and legal base and business models for driverless transport systems. According to Moscow transport authorities, driverless transport will be used on Moscow roads in 10-15 years. **Read The Article**

PSR Analysis: The Russian OEM has its own driverless technologies development, and tests have started in the KAMAZ plant, on some roads in Tatarstan and in Moscow during the World Cup. This project targets development of a large-scale driverless transportation system.

Renovation of BAM and TransSiberian Railway

The Russian Railways company says that this year it has renovated 5,000 km of railway. The planned budget of renovation in 2018 is about US\$ 1 billion. Common budget for 2013-2019 period is US\$ about 10 billion. Within the project, the throughput capacity of Siberian railway has increased by 30%. By 2020, the volume of cargo carried to the harbors of Russian Far East will reach 125 million tons, double what it was in 2012.

Read The Article

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

Russia Report

Continued from page 17



PSR Analysis: This is another example of a long-lasting mega-project sponsored by the Russian government. Another target of this project is to increase cargo flow to/from China, including the transit to Europe.

Haval Completes Auto Plant in Russia

Chinese giant Haval said it has completed a new plant in an industrial park in the Tula district of Russia. Production is scheduled to start at the beginning of 2019. Production capacity will be 80,000 cars/year in the first stage and 150,000 cars in the second stage, with the level of local parts at about 50%. The new plant covers 2.16 million sq. meters and includes painting, welding, stamping, assembling lines and component production facilities. The plant features a high level of robotization. The investment is about US\$ 500,000,000. **Read The Article**

PSR Analysis: Chinese companies are attracted by the large Russian market, privileged terms offered by the Russian government, and the low cost of the qualified workforce. **PSR**

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- **CV Link™** – Commercial Vehicle Production-Forecast Data
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- **OE Link-Sales™** – Original Equipment Sales-Forecast Data
- **PartsLink™** – Engine and Original Equipment Population Data
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