

Analysis

Tech innovations needed to kick-start the European automotive market

Executives from OEMs and tier suppliers are predicting the European automotive sector can be rejuvenated through the export of vehicles and technologies to new markets outside the region

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> **Automotive industry executives** believe that opening new markets for European products and the development of new-to-market innovations are the keys to breaking the market out of the current doldrums and into a new period of growth.

Speaking at the 14th European Automotive Congress in Bilbao, Spain, Francisco Javier Garcia Sanz, member of the management board at Volkswagen responsible for Procurement, noted that in the short- to medium term, markets outside Europe, including the BRIC nations and south-east Asia, will remain central to growth in the global automotive sector. This will be supported by continuing globalization in terms of planning and implementation, which will affect all aspects of the industry, from producers and sellers, through to the

end customer.

Garcia Sanz continued by stating that the customer will be a key driver in this process. As most buyers have access to global information and can see what is being offered

in markets outside their own, they will expect to be offered the same technologies where they live and at a comparable price. Such knowledge will force vehicle manufacturers operating around the world to increase



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globalization in order to produce these vehicles, no matter where the location.

It is well known that Garcia Sanz, who is originally from Madrid, champions Spanish national tier supplier companies that work to support the automotive industry. His advice to them – and those others across Europe experiencing the same business difficulties – is to off-set local losses by seeking out external growth through increased exports. He also proposed that the so-called ‘3 million’ plan, which has the goal of breaking the three million units per annum threshold in Spain, could further help the supply base, but these finished vehicles will need to be shipped to regions outside the country as the local market remains weakened by various economic factors. Although most exports are bound for the UK, Germany, France and Italy, a growing diversification of destinations should support greater output at highly-efficient Spanish production plants.

This will be supported by a series of improvements being realized across local production, including improved working conditions, fewer industrial disputes and improved productivity. Owing to investment by OEMs such as the Volkswagen Group, Nissan, Ford and Mercedes-Benz, quality is in line with global industry standards. Changes, said Garcia Sanz, must include reduced energy costs, which in Spain are currently higher than the European average, improved infrastructure across road, rail and sea and an increase in local research and development activities. “This crisis provides a unique opportunity for the [European] motor industry to become a point of reference,” he added, meaning that it is the development of new technologies that would serve

to support and strengthen a regional market that has seen annual sales fall to approximately 12 million units.

In closing, Garcia Sanz predicted that the car industry will continue its global growth and Europe must follow that trend in order to prevent further plant closures and promote regional growth, which would also open up job opportunities for countries such as Spain that have been plagued by growing unemployment. “For Spain, my recommendation is industry, industry and industry,” he said, which served to highlight how he believes it will be possible for the country and others in the region to manufacture their way out of the on-going market slump.

Various other presentations at the latest European Automotive Congress also highlighted how the European automotive industry can use innovation – and related added-value improvements – to turn the market around. Dr. Matthias Rabe, executive vice-president for R&D at SEAT pointed out that technologies to reduce emissions would serve as a solid foundation on which local OEMs could look to reinvigorate shrinking

markets. With new TSI powertrain solutions across the VW Group delivering 20g/km CO₂ reductions, the green energy push will be rolled out across all other regions. Rabe also noted that the increasing use of hot-stamped steels in vehicle production has reduced vehicle weight and this will also support reduced engine emissions. Additionally, using steel supports end-of-life (ELV) initiatives, which cannot be achieved through the use of other lightweight materials, including fibre-reinforced plastics and aluminium, due to the problematic



Francisco Javier Garcia Sanz, Volkswagen Group

recycling processes.

Other developments also show how European R&D is leading the way in the automotive sector. Examples include LED lighting which, being more efficient than conventional lighting solutions, draw a reduced amount of engine power – and fuel. Rabe also noted that connectivity solutions developed in Europe would be shared across global vehicle production to meet the demands of customers who rather than enjoying the flexibility, expect to have the same level of connectivity in their vehicles as is available at home or the office. “It is not necessary to predict the future,” he said, “but prepare for the future.”

Fernando Ray, director of corporate innovation at Grupo Antolin further highlighted how R&D can support improved vehicle sales. As a manufacturer of parts including headliners, seats and door lighting solutions, Ray noted that according to J.D. Power, 18% of potential customers deciding not to purchase a given vehicle highlighted poor interior design as the reason. “Innovations in this area can guarantee market activity, delivering added value and customer satisfaction,” said Ray. Product differentiation is also critical in this area, both in terms of brand appeal and customer expectation.

The latest megatrend, he went on to explain, is related to so-called ‘Smart’ interiors, which offer improvements in perceived quality in combination with passenger interactivity. An example of this can be seen in the Peugeot 2008 which has a headliner fitted with ambient lighting, which Ray claimed is a better solution than ‘points of light’ products offered in such vehicles as the Opel Adam. Additionally, polyester materials based on bamboo and other natural fibres are proving popular,



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Fernando Ray, director of corporate innovation at Grupo Antolin

particularly in terms of simplifying ELV processes.

Like VW’s Francisco Javier Garcia Sanz, Francisco Jose Riberas, president of serial metal parts supplier GESTAMP, believes that the company has no choice but to expand into markets outside Europe to have any chance of growth. He identified the major areas of expansion for the company as eastern Europe, Turkey and Russia. Additionally, GESTAMP is in the process of diversifying its product portfolio; currently 66% of total global sales are covered by delivery of body-in-white parts to OEM customers.

In addition to the technical challenges of introducing new products, Riberas noted that securing the required financial backing to

deliver new products and the related manufacturing infrastructure remains a serious hurdle to all tier companies. He went on to say that by not underwriting new investment, banks are effectively cutting off the launch of new technologies into the market and a possible route to recovery. To raise liquidity, GESTAMP elected to sell USD350 million in corporate bonds. This was the first time the company had chosen to take this route, but the success of the sale meant that the company was no longer reliant on banks for investment cash.

In terms of contracted body part production, Riberas noted that he expects OEM outsourcing to continue, particularly in new and emerging markets. In response to this, he is planning to have 55% of all company output taking place outside Europe. This will allow the tier supplier to benefit from OEM growth in various global regions, while the expense of launching new products can be reduced through the use of product and process validation techniques based on digital simulations. Of particular importance is Japan, where GESTAMP is working closely with Mitsubishi to develop new body part solutions that involve hot stamping and laser cutting technologies. “Products must be produced where they are needed, not simply where there is a noted shortage of supply,” he added, pointing out the need for tier suppliers to add value to their products to make them more competitive.

Although Francisco Jose Riberas noted that it was still proving difficult to source financial backing from banks, Barbara Bonvissuto, Deputy Head of the European Commission’s DG Enterprise and Industry Mobility and Automotive Industry department pointed out that the European



Francisco Jose Riberas, GESTAMP

Investment Bank had lent EUR8 billion to the automotive sector since the financial troubles of 2008-'09. She went on to say that the automotive industry should exploit the synergies available in public/private partnerships and that new regulations could benefit the industry through the introduction of new mobility standards, including a revised vehicle emissions test cycle.

The automotive industry is sceptical about such a move, as a change in the standardized emissions test would undoubtedly result in a downward revision of current vehicle fuel economy figures. Yet as the current test shows hybrid and plug-in models as delivering outstanding fuel economy figures that are essentially impossible to achieve in real-world driving conditions, delivering results that were closer in percentage terms

to those achievable would certainly improve the level of trust between company and customer, a key element in the overall purchase decision.

Bonvissuto went on to point out that coordination of government regulation could also benefit OEMs, particularly in terms of subsidies for purchasing of electric vehicles (EVs), which now vary between European countries. International standardization with regards to

safety testing could also prove valuable in terms of homologation, with a full 33% of the proposed deregulation between the EU and the United States benefitting the automotive sector. Other initiatives such as standardized EV charging and an improved charging infrastructure would also support market growth in Europe as these vehicle types became a viable alternative to cars using a standard internal combustion engines.

Speaking specifically about EVs, Silvia Patricia Ghella-Schroder, Project Leader for Drivetrain Projects and E-Mobility at the BMW Group, covered how the carmaker has reduced fleet emissions of CO₂ by 25% since 2009 as it has continued to develop its programme of sustainable mobility. Central to this are the advances marketed as the Efficient Dynamics

series of technologies. While these apply to petrol, diesel and hybrid powertrains, a further element is the development of the 'i' range of electric vehicles, including the i3 and i8 models.

Specifically, Ghella-Schroder claimed that despite some negative publicity, these EVs were still endowed with the "dynamic genes" of BMW and, unlike other EVs, were equivalent to models with standard powertrains in terms of engine power and acceleration. In terms of production, the additional energy used across the manufacturing process for each of these vehicles would be off-set after 50,000 km of driving using green electricity, while the used battery packs could be adapted for household use, storing energy collected during off-peak hours.

The singular message from the various senior executives presenting at the recent European Automotive Congress is that there remains a bright future for European vehicle production. But rather than volume, which still needs to be reduced across the continent when considering finished vehicle output, the regional recovery will be based on finding new non-European markets for products and at the same time leveraging the value of new materials and electronics technologies as they are rolled out across global markets.

Additionally, there must be an increase in added value visible across the sector. For OEMs, this means having the latest technologies incorporated in their models. For tier suppliers, added value will require investment to support an extended number of in-house processes, but it is widely believed that this will translate to increased margins per delivered part. ■