

## Japan's Automotive Industry

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### **Between Isolation and Global Leadership:**

### **Japan – your access-gate-way to 30% of the global car production**

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In 1995 Japanese automotive makers were producing around 30% of the global car and truck production. This has not changed and looking at professional forecast-data it will not change.

In many areas the cars developed in Japan are technology leaders, like e.g. in Hybrid or Electric Vehicles. Yet in many other technologies and business areas Japan's automotive industry has lost global competitiveness due to what many insiders call the "Galapagos effect".

European suppliers, which confidently call themselves system-partners of their customers have supported and are driving innovation in the vehicle development process and facilitate the globalisation of their customers with investments and by taking over responsibility for their expertise. The wide base of competent and independent system suppliers in Europe is one reason for the global striking success of European, especially German car brands and suppliers of recent years.

In Japan the relationship between OEMs and suppliers is slightly differently defined. Yes there are system-suppliers with deep know-how and outstanding capability such as Denso and Aisin. But one can count these suppliers on two hands. The majority of suppliers are buhin-makers (parts producers), which are basically building the parts, for which they get the drawings from the OEM. The innovative ability of these producers equals their margin, low to zero. These producers are not globalized and if they go abroad it is because their

customers ask them to build a plant next to the OEM plant in another country. The system stays the same, the part maker produces what they are told to. Yet the capability of these suppliers to develop (apply) their components and to produce them according to the OEMs requirements should not be underestimated. Excellent, loyal engineers are providing the backbone for their OEM partners. It is just that the roles and responsibilities between OEMs and suppliers are normally differently defined from what we are used to in Europe.

This system in the first steps cuts cost, because the J-OEM does not have to finance the complete advanced development team of a comparable European Suppliers. As long as the OEM maintains technology leadership with a sufficient team of engineers the strategy pays off. The supplier is specialized in application and production design and the OEM takes care of the innovation. The reality has proven the system to cause major issues. It is not a hidden secret that one of the biggest opponents of innovations are big organisations and that big organisations also do not show the flexibility and agility to make fast decisions. Because of this Japanese OEMs have fallen behind in technology leadership, except for hybrids and EV models. And as the ability of Japanese OEMs to work with foreign suppliers also still holds potential for improvement, innovation is a major topic for Japanese OEM.

### **Exception Hybrid EV**

The Hybrid and Electric Vehicle Segments shows a clear upside of the Japanese Automotive Industry. Toyota made Hybrid a brand characteristic and many suppliers and companies in Japan are following the biggest car maker of the world.

Of the 1.5 Mio EV and Hybrid vehicles produced globally 900 000 were produced in Japan. Japan is the single biggest sales and production market. Japanese Makers sell the 3<sup>rd</sup> and 4<sup>th</sup> generation of hybrid cars today. In this area the Japanese automotive industry offer very good chances for German suppliers who want to catch up on technology and know-how. Many Japanese Suppliers look for partners who can offer what they cannot build themselves: A functioning organisation for European makers.



### **The Galapagos Effect**

What does all of this have to do with Galapagos? Galapagos has one strong species, which dominates the islands for millions of years and has a dominating behaviour in its territory, but only in its territory, the species did not make it successfully off the island. This is where the term "Galapagos Effect" for the Japanese automotive makers comes from. Japanese OEMs began to produce cars for their local market and leading quality and an attractive price made these cars globally sellable. Today speed to market and building cars, which attract global customer groups, makes car-brands successful. The ability to produce leading quality is still the core-characteristic of Japanese OEMs. Their approach is still production and quality driven. But customers require more today: differentiating design in interior and exterior and a DNA specific car dynamics, which is a little different for each market.

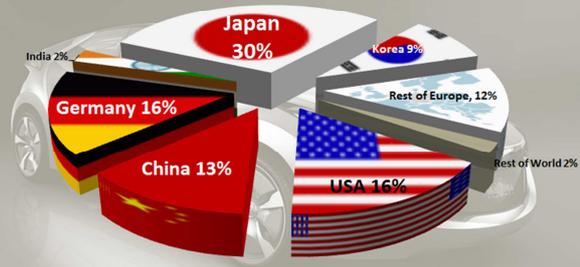
In addition the info-tainment integration into local networks becomes more and more important. The Japanese suppliers, which supported the Japanese OEM to their leading position, are becoming more and more their bottleneck. In the electronic board-net and ECU infrastructure for example software for controllers and production equipment is written in Japanese, the systems are often unique to one Japanese OEM and globally used on-board or off-board diagnostic and control tools cannot be used to calibrate and program cars, program controllers and support development processes. There are rumours that engine calibration and driveability adjustments of vehicles became an obstacle for J-OEMs, because there is not sufficient outsourcing capacity to take over these tasks. In Europe high-level engineering services can be provided by various suppliers based on unified systems, architectures and development tools. In Japan most OEMs have their individual systems. Such individualism often limits the cooperation with external partners to

Keiretsu companies or in-house work. Comparable issues exist in most components and systems of Japanese car platforms.



### About 82 Mio Vehicles were produced in 2012

Shares of production by origin of technology / capital



### Failures, risks and chances

A shocking example where this focus of product development to Japanese standard failed is PANASONIC - a world leading technology group has been overtaken and isolated by companies like Samsung or LG. Today Panasonic is mainly making money with “white goods” in Japan and has few electronic goods, which are really competitive on the global scene. Independent TV standards failed in the same way as the try to develop own mobile phone standards for Japan.

In order to avoid a similar future, Japanese car OEMs need to build partnerships with globally competent system-suppliers in order to break through these innovation and globalisation bottlenecks.

Companies like Continental and Bosch have successfully bought their way into Japan by acquiring and integrating Japanese organisations in Japan, same is applicable for some hidden champions like Webasto or Elring Klinger. The companies who have invested into their relationship with Japanese OEMs and have shown their loyalty to them are making good money in Japan today and their global utilized innovation power supports Japanese OEMs.

“Abenomics”, the policy of the new prime minister, which wants to revitalize the Japanese industry, is controversially discussed, but one thing is clear, he is pushing for structural change in the industry. More foreign participation and innovation is required to re-connect Japan to the world-leading-class it ones belonged to. Based on the strong production technology Japan can fast catch up if innovation is injected and structural changes to the labour force are made – overcome seniority and put performance in the centre of society and organisations.

The chances for European suppliers to participate in the Japanese automotive industry have never been better. It is still difficult to do a green field approach in Japan, even though it has been done in recent years. KARMANN Japan, the local subsidiary of the convertible and car producer, whose headquarter in Germany filed for bankruptcy in 2008, had built a plant in Japan on green-field and this plant was the most valuable asset during the insolvency proceeding and later supported the growth of Magna Steyr in Japan who bought the complete organisation.

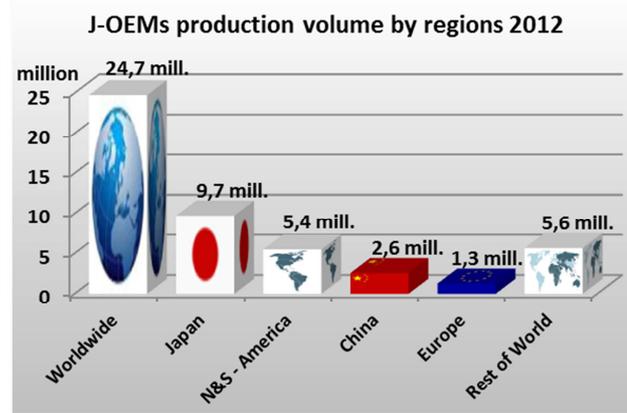
A more common way to set up in Japan is to joint-venture or acquire a parts-maker.

Even though the innovative power of such companies is not high, their capability to adjust technologies to Japanese OEMs requirements is excellent. Normally well-educated loyal engineers work hard to meet the requirements of their customers and it is especially these R&D and production capability which is required to succeed with Japanese OEMs.

Many European suppliers are currently seeking for growth options and are evaluating market potentials. In most cases an objective analysis would show them that their sales to J-OEMs totally underrepresent the global percentage, which Japanese OEMs have in global production. The key to success with J-OEM is still a solid presence in Japan where Japanese OEMs produce around 10 Mio of the 30 Mio globally produced units (J-production only). A company that can do (application) engineering and production in Japan will automatically deliver in China and all other regions of the world. And one thing also has not changed: the loyalty and reliability of relationships with Japanese customers, once such relationships are

built.

The current need of J-OEM to expand their supplier base combined with the willingness of many mid-sized suppliers to build JVs or discuss about M&A offers great chances to buy into Japan and the currently weak Yen makes such activities very affordable. A recent example of a smart partnership is Eberspächer Climate Control Systems, who announced a joint-venture with stock-listed Mikuni, a former competitor. This Joint-Venture opens a market to them which was inaccessible for many years.



The approach to partnerships and negotiations is still a little different from Europe or the USA and negotiations follow a process, which is beyond logic of a western manager. In many cases the future of the company and its employees or the chance to suddenly become more competitive again are more important for Japanese Suppliers than the direct financial benefit taken out of a partner-ship or a JV or M&A activity. The authors of this article have been involved in transactions in which Japanese Companies literally were handed

over to European Partners just in order not lose the face in a direct market confrontation with the competitor. The acquiring European companies understood to offer the target an honourable possibility to stay a strong partner to its customers. This alone was enough for the Japanese partner to accept a minority share-holding. We hope that this article encourages more European suppliers, especially in the midsized company area to re-evaluate their future with J-OEMs or to optimize their existing structure.