Hungarian Automotive Supplier Survey 2018
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Introduction

Evaluation of the 2017 business year

In 2017 the Hungarian automotive industry achieved its highest-ever output, at HUF 8,038 billion. For this year, PwC’s Hungarian Automotive Supplier Survey forecasts further growth in sales and headcount. Hungary’s automotive sector now employs close to 170,000 people and, with investment appetite set to remain strong, could employ even more, but for a chronic shortage of qualified labour. The lack of qualified new workers also has a direct impact on companies’ growth prospects; one quarter of survey participants said that they could not accept certain orders due to staffing problems. While at our northern neighbour, Slovakia, half of the companies surveyed reported experiencing such issues, manpower drain from the Slovakian automotive industry could become an increasing problem in the region of Komárom-Esztergom and Győr-Moson-Sopron counties.

The continuing expansion of Audi and Mercedes manufacturing plants continues to be highly significant for suppliers in Hungary, as 19% of respondents supply domestic customers only, while 45% mainly target nearby markets, primarily the Czech Republic and Slovakia.

2017 was a year of growth, with a quarter of the respondents reporting double-digit growth and a capacity utilisation rate exceeding 80%. The picture, however, is somewhat marred by the fact that Austria posted a growth rate twice as high. What is the key to success? In Austria, growth is driven by groups of innovative local businesses that create significant added value, while in Hungary, by large plants engaged in classic manufacturing operations.

The positive trends in Hungary’s auto industry are also reflected in the sales figures and prospects of survey participants. A quarter of the respondents reported double-digit growth, while more than one-third reported expansion of between 5% and 10%. Most companies worked with at least 80% production capacity utilisation in 2017. Positive trends were also reflected in headcount figures: nearly half of the respondents saw an increase of more than 5% in their workforce.
Business outlook for 2018, future plans

About two-thirds of the respondents believe that their sales growth is likely to exceed 5% in 2018. In line with the trend witnessed both globally and in the region, the number one risk to growth prospects is the lack of qualified labour: 78% of the respondents marked it as a threat.

The automotive industry is highly important for the Hungarian economy: it contributes almost ten percent of GDP and makes up a quarter of exports. The spread of electrification and related changes in the supplier value chain could, however, lead to a significant restructuring in the sector in Hungary. One half of the companies surveyed already think that electrification will impact their business. How competitive automotive suppliers in Hungary can remain in this environment will largely depend on their ability to innovate and their willingness to embrace industrial change. In recent years, most automotive investments in Hungary have been implemented in new and developing fields, such as battery and electric motor manufacturing. The most likely scenario will be a potential reshuffle within the sector, with no drop in economic output, while foundations are gradually rearranged.

Expectations for the near future are, however, positive, even in comparison to 2017: about two-thirds of the respondents believe that their sales growth is likely to exceed 5% in 2018 as well. This further improvement in an already positive 2018 outlook can also be attributed to a growing customer base: 20% of the respondents reported new contract wins, and a further 38% envisaged an increase in new customers. The number one risk to growth prospects is the lack of qualified labour: 78% of the respondents marked it as a threat. The pressure from OEMs represents a risk for almost half (48%) of the respondents – while few companies are considering cost cuts amidst the current upward trend in the industry. Automotive suppliers are mainly concerned about increasing competition for customers and a slowdown in emerging markets. For the time being, they view the latter as a global trend that will only impact Hungary with a delay of 1-2 years.

R&D, technology, and optimisation

85% of the respondents are familiar with the Industry 4.0 concept, and think that a fundamental change in manufacturing methods is inevitable. A quarter of the respondents already use Industry 4.0 solutions in manufacturing, while the majority expect the new technologies to emerge primarily in research and development, production, and logistics in the medium term.

Suppliers have to place more emphasis on continuously improving production efficiency and facilitating innovation in order to meet increasing demand and customer requirements. Megatrends in the automotive industry have significantly accelerated the innovation cycle. Automotive suppliers that manufacture conventional, easily replaced products with little need for research and development already face a loss of markets in the short term. Electric cars have 60% fewer parts than vehicles that use traditional technology, which could have a negative effect on the Hungarian auto industry and its supplier network. The future of Hungary’s automotive industry lies in innovation and research and development in the fastest developing segments. For Hungary to remain an investment target it needs to focus on infrastructure development, creating a strong educational background, and providing a supportive R&D and innovation environment.

The current labour shortage also explains why more than 60% of automotive suppliers surveyed in Hungary expect robotics to become a strategically important technology for them within five years. It can be viewed as a positive sign that 13% of the companies surveyed are considering setting up a local R&D centre or providing local support for group R&D activities in the near future, as also reflected in the profile of projects implemented in 2017. While in Austria more than 70% of the respondents carry on intensive local R&D activities, and 22% also perform development activities for third parties, Hungary-based suppliers currently lack similar innovation capabilities.

In addition to research, analysis of data generated in manufacturing and development processes has become highly important. 60% of respondents in Hungary said that they were actively looking at big data and data analytics, focusing primarily on financial and production data. Data-based operations, offering rapid return on investments, could represent the next phase in optimising production.
Labour shortage, training

The lack of qualified labour was quoted as the number one risk to 2018 growth prospects – a quarter of the companies surveyed have already been forced to reject orders due to labour shortage. Almost half of the respondents employ foreign workers, and for 14% they make up a significant percentage of the total workforce. At the same time, Hungarian workers present an attractive staffing alternative for employers based in neighbouring countries, meaning that workforce drain remains a persistent risk factor.

In recent years, the demand for qualified specialists has increased perceptibly. In addition to generational changes, the industry also has to cope with the problems of an educational system that is unable to keep up with the current rate of development. These trends result in tremendous pressure on the job market. Survey participants try to respond to the situation mainly by wage increases, hiring foreign employees, in-house training programs, and further simplification of work processes. The spread of robotisation and digitalisation requires workers to learn several new trades and skills. Furthermore, education has to meet the robust requirements of lifelong learning and preparing people for the challenges of the labour market. Suppliers are more and more interested in robotisation in jobs where workers performing low value-added work can be replaced by machines.

Automotive suppliers believe that the key success factors that can help Hungary’s auto industry stay competitive are increasing added value and attracting R&D operations and innovation to Hungary. This is closely connected to creating an economic environment that supports innovation and offers favourable tax conditions. Training specialists with competitive skills, encouraging workforce mobility, and increasing recognition of skilled work could also improve growth prospects for the sector. Support for Hungary’s small and medium-sized businesses, efficient investments using modern technology and financed with equity, and automation may also represent breakout opportunities for automotive suppliers in Hungary.
The research survey, which covered Hungary for the first time, was completed by two main groups: the top executives of mostly foreign-owned corporations and the heads of Hungarian-owned SMEs. 40% of the respondents employ more than 500 people and companies with 100-500 employees account for a similar proportion, so the majority of responses in the survey came from key economic players.

In Hungary’s automotive industry, suppliers have accounted for an increasing share of production and most jobs for almost two decades now; they contribute almost ten percent of GDP and make up a quarter of exports. This year PwC has added Hungarian respondents to its Central European research study. The survey was mostly completed by large firms (500+ employees) and medium-sized companies, so our research is dominated by the responses of players with a major role in the national economy as a whole. According to their position in the supply chain, more than half of the respondents are Tier 1 suppliers. These companies have direct ties to automotive manufacturers; their co-operation is extensive and goes far beyond a simple parts supplier relationship. In terms of ownership structure, those with a foreign majority owner are represented in greater numbers: their proportion is 63%, which differs somewhat from the actual composition of the sector in Hungary, but if we look at economic performance, this proportion gives good coverage. Over 80% of the respondents produce partly or only for export.

Question 1
How many people (own staff and temporary workers) does your company employ?

- 40% over 501
- 25% up to 100
- 19% 101-250
- 16% 251-500

40% of the respondents employ more than 500 people and companies with 100-500 employees account for a similar proportion (35%). A quarter of the respondents have fewer than 100 employees. The proportion of large (500+ employees) and medium-sized companies is significant (75%), so the majority of responses in the survey came from key economic players. Most of these companies do not focus on manufacturing only, but also play an active part in the R&D activities of their parent companies, which is one of the reasons why it is important for them to operate in a business environment that supports innovation and investment promotion.
Question 2
At what level of the supply chain is your company positioned?

- 53% Tier 1 supplier
- 23% Tier 2 supplier
- 14% Tier 3 supplier
- 11% Other

In terms of their position in the supply chain, more than half of the respondents are Tier 1 suppliers. These companies have direct ties to automotive manufacturers; their cooperation is extensive and goes far beyond a simple parts supplier relationship. The direction of global trends in outsourcing and specialisation show that major car brands team up with these suppliers in the tasks of manufacturing, assembly and technical development. Tier 2 suppliers make up almost a quarter of the respondents, while 14% are Tier 3 suppliers – these companies do not have direct relationships with automotive manufacturers. With product development they can increase their profitability and take a step up in the value chain. 11% of the respondents specified other activities, including research and development and legal advisory services.

Question 3
Please describe your company's ownership structure

- 63% Majority owned by foreign corporations
- 32% Majority owned by local entrepreneurs / family owned
- 4% Public sector
- 2% Listed company or subsidiary of a listed company (in Hungary)
- 2% Majority owned by state

In terms of ownership structure, companies with a foreign majority owner make up the largest proportion (63%) of respondents. 32% have a Hungarian majority owner, while 2% are in majority state ownership.
Question 4
Which OEMs are the end-users for your products?

<table>
<thead>
<tr>
<th>OEM</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volkswagen (incl. Porsche, Seat, Skoda, MAN, Scania)</td>
<td>61%</td>
</tr>
<tr>
<td>Audi</td>
<td>56%</td>
</tr>
<tr>
<td>Daimler (incl. Smart)</td>
<td>51%</td>
</tr>
<tr>
<td>BMW (incl. Mini)</td>
<td>49%</td>
</tr>
<tr>
<td>Renault (incl. Nissan, Dacia)</td>
<td>42%</td>
</tr>
<tr>
<td>Ford</td>
<td>40%</td>
</tr>
<tr>
<td>PSA (Peugeot, Citroen, Opel)</td>
<td>37%</td>
</tr>
<tr>
<td>Suzuki</td>
<td>37%</td>
</tr>
<tr>
<td>Volvo</td>
<td>32%</td>
</tr>
<tr>
<td>FCA (Fiat, Chrysler, Alfa Romeo, Lancia, Abarth, Maserati, Ferrari, Jeep, Dodge)</td>
<td>26%</td>
</tr>
<tr>
<td>General Motors (Chevrolet, Cadillac, Buick, GMC)</td>
<td>25%</td>
</tr>
<tr>
<td>Toyota (incl. Lexus, Subaru, Daihatsu, Scion, Hino)</td>
<td>23%</td>
</tr>
<tr>
<td>Honda</td>
<td>21%</td>
</tr>
<tr>
<td>Hyundai (incl. Kia)</td>
<td>19%</td>
</tr>
<tr>
<td>Tata (incl. Jaguar Land Rover)</td>
<td>16%</td>
</tr>
<tr>
<td>Mazda</td>
<td>12%</td>
</tr>
<tr>
<td>Other</td>
<td>9%</td>
</tr>
<tr>
<td>Saab</td>
<td>5%</td>
</tr>
<tr>
<td>Tesla</td>
<td>5%</td>
</tr>
<tr>
<td>Chinese OEM (e.g. SAIC, Dongfeng, FAW, Changan, BAIC, Geely, etc.)</td>
<td>4%</td>
</tr>
<tr>
<td>NA</td>
<td>4%</td>
</tr>
</tbody>
</table>

Automotive suppliers find it important not to depend on a single automaker, which is confirmed by their responses to the next question. A significant number of the respondents named the brands with manufacturing operations in Hungary – Audi (56%), Mercedes (51%), Suzuki (37%) and Opel (37%) – among their end-users. The first place, however, went to Volkswagen with 61%, which may be attributable to the German carmaker's sizeable manufacturing capacities in Slovakia. The brands BMW, Renault and Ford were also mentioned among the end-users by 40-50% of the respondents. The automotive plants located in Hungary have a positive impact on the suppliers' order books, but for now they do not account for the majority of their business.
Question 5
What type of products/parts/services do you manufacture/supply to the automotive industry?

- Body parts or modules: 23%
- Powertrain or its components: 35%
- Seating, interior equipment: 12%
- Dashboard, electronics, vehicle control, measuring systems, sensoric, safety, cooling systems and other systems: 23%
- Battery technology: 7%
- Assembling: 12%
- Software, data analytics: 4%
- Research & Development (R&D), prototyping, testing, certifications, quality control: 7%
- Machines and components for production assets, supplies & consumables: 14%
- Consulting, training: 7%
- Other: 28%

The majority of the respondents manufacture four types of products: body parts or modules (23%), powertrains or their components (35%), tools (14%) and dashboards, electronics, sensors, cooling and safety systems (23%). The suppliers engaged in the manufacture of seating and interior equipment and those specialised in assembly can also be considered significant categories.
More than 80% of the respondents export most or all of their output, while almost 20% of them sell their products or services in the Hungarian market only. As for export markets, Western Europe is the number one region: 75% of the automotive suppliers surveyed marked it as the most important region in their responses. Central and Eastern Europe (Russia and Ukraine are not in this category) is another key market: a quarter of the respondents export to this region. Asia accounts for a similar proportion to Southern and Eastern Europe (16%).

As far as delivery distances are concerned, only four respondents marked 0-50 kilometres – in the automotive industry this can be regarded as an essential prerequisite for just-in-time deliveries. Almost a quarter of the survey participants deliver to distances over 1000 kilometres, while another 29% deliver to distances of 500-1000 kilometres. The remaining quarter of the respondents fall into the 50-200 kilometre category.
Evaluation of the 2017 business year

2017 was a year of growth, with 26% of the respondents reporting double-digit growth and 39% reporting expansion between 5% and 10%. Four-fifths of the companies worked with at least 80% production-capacity utilisation in 2017. The picture is somewhat marred by the fact that some neighbouring countries posted a growth rate twice as high. What is the key to success? In Hungary, growth is driven by large plants engaged in classic manufacturing operations, while in the region it is driven by groups of innovative local businesses, which create significant added value.

The Hungarian automotive industry achieved its highest-ever production value, at HUF 8,038 billion, in 2017. The sector has reported further expansion this year, and the fact that the number of people employed in the industry is increasing continuously is also suggestive of growth: Hungary’s automotive sector now employs close to 170,000 people. The expansion of auto manufacturing plants in the region – the investments of Audi and Mercedes – has prompted suppliers to create new production capacities. Below is a list of some of the expansion projects launched or completed by automotive suppliers in 2017:

• SAPA Profiles is building a new pressing plant in Székesfehérvár – the automotive supplier’s HUF 6.8 billion investment project will create 120 new jobs;
• German company ElringKlinger is building a new HUF 6.5 billion plant in Kecskemét, which will produce heat shields for car parts using plastic injection machines;
• Car parts manufacturer Ames Hungária Kft. completed a HUF 3.5 billion capacity expansion project at its Szentgotthárd plant in November 2017;
• Adient, a leading producer of automotive seating, officially opened its third site in Móricz on 15 December;
• Michigan-based BorgWarner increased its capacities in Oroszlány;
• Ecseri Kft., a Hungarian automotive manufacturer, completed a 22,000 m² expansion in Cegléd.

This growth shows no signs of abating in 2018 – some major investments are listed below:

• Flex expanded its Zalaegerszeg automotive plant in an approx. HUF 3 billion project in April 2018, creating 100 new jobs;
• Swiss-owned REHAU-Automotive set up a new car parts manufacturing plant in Újhartyán in February, creating 727 new jobs. The company is also expanding its Győr site, which is warranted by the increasing demand from Audi. The reason for the greenfield investment in Újhartyán is the construction of the second Mercedes plant in Kecskemét, where REHAU-Automotive is also one of the most important suppliers;
• Continental announced a futuristic development in May, whereby it would open its artificial intelligence centre in Budapest in a HUF 5.5 billion investment project. Artificial intelligence is the core competence in the development of automated driving.

The positive trends in Hungary’s auto industry are also reflected in the sales figures of the companies participating in the survey. 26% of the respondents reported double-digit growth and 39% reported expansion of between 5% and 10%. Four-fifths of the companies worked with at least 80% production capacity utilisation in 2017. There were similarly favourable trends in employee numbers: 44% of the respondents saw an increase of more than 5% in their workforce, with 22% reporting double-digit growth in this regard.
Question 8
How has your company’s sales revenue changed in 2017 YOY?

The positive trends in Hungary’s auto industry are also reflected in the sales figures of the companies participating in the survey. 65% of the respondents reported growth, while a quarter of them did not register any significant (5% plus) change in sales. Only 11% of the companies saw their sales drop. 26% of the respondents reported double-digit growth and 39% reported expansion of between 5% and 10%.

| Change of volume of production units sold/services provided to customers | 49% |
| Changes of selling prices to customers | 14% |
| Launch of new products / termination of existing products (incl. model change, product development) | 32% |
| Acquisition / divestiture of companies or parts thereof | 2% |
| Other (please specify) | 3% |

Of the various reasons specified for the change in sales revenue, a change in volume was the most important in 2017, marked by almost half of the companies participating in the survey as a contributing factor. The launch of new products was another cause of a change in sales, mentioned by a third of the respondents. Changing sale prices also had an impact on revenue changes in 2017: 14% of respondents attributed significance to this factor.
Question 10
What is the current production capacity utilisation at your company?

The growth in automotive manufacturing is also reflected in the utilisation rate of production capacities. Four-fifths of the companies worked with at least 80% production capacity utilisation in 2017, and nearly half of the respondents reported almost full or 100%-plus capacity utilisation. 35% of those who completed the survey run at 80-90% capacity, while 18% operate at 60-80%. These are very high levels; only one business reported less than 60% capacity utilisation.
Question 11
If you have implemented cost reduction measures in 2017, which areas were most impacted?

- 35% No reduction of costs
- 12% Labour costs
- 21% Material and energy costs
- 13% Transport / logistics costs
- 4% Administration costs
- 8% Maintenance costs
- 8% Other

35% of respondents did not make any significant cost reductions; those who did take real austerity measures mainly saved on material and energy costs (21%), transport and logistics costs (13%) and labour costs (12%). It is good news that none of the companies cut costs in their research and development activities.

Question 12
How have total staff numbers (own staff and temporary workers) changed at your company in 2017?

- 43% No change (+/- 5%)
- 22% Increase of more than 5%, but less than or equal to 10%
- 22% Increase of more than 10%
- 7% Decrease of more than 5%, but less than or equal to 10%
- 6% Decrease of more than 10%

The positive trends were also reflected in the number of employees: 44% of the respondents saw an increase of more than 5% in their workforce, and within that, 22% reported double-digit growth. 43% of the companies participating in the survey said that there were no significant changes in their staff numbers, and only 13% of the respondents reported a decrease in the number of employees.
Almost two-thirds of respondents believe that their sales growth will probably exceed 5% in 2018. In line with the trend witnessed both in the region and globally, the number one risk to growth prospects is the lack of qualified labour: 78% of the respondents marked it as a threat.

The automotive industry is a highly important factor in Hungary: it contributes almost ten percent of GDP and makes up a quarter of exports, so for now its position is stable. The increasing popularity of electric cars, however, could bring about a considerable change in this regard; as cars become structurally simpler, the emphasis will shift from final assembly to development. The question is how competitive Hungary can remain in such a situation. The automotive investments presented above are in new and developing fields, so they point toward a reshuffle within the sector, therefore overall we do not think a decrease is likely.

Our research also confirms that among the global changes in the auto industry, Hungarian respondents are most affected by electrification. The expectations for the near future, however, are positive: about two-thirds of the respondents believe that their sales growth is likely to exceed 5% in 2018. The positive 2018 outlook can also be attributed to the increasing number of customers: 20% of the respondents forecast robust growth in this regard, and another 38% say that an increase is likely. The number one risk to growth prospects is the lack of qualified labour: 78% of the respondents marked it as a threat. The pressure from OEMs represents a risk for almost half (48%) of the respondents. Automotive suppliers are also concerned about the increasing competition for customers and the slowdown in emerging markets.
Question 16
What rate of change do you expect in 2018 in respect of employee numbers?

With regard to the number of employees, half of the respondents do not expect any pronounced change, a quarter are planning a 5%-plus increase, while 18% have a 10%-plus growth target. Only 6% of the companies surveyed predict a decrease in their workforce. These figures fall short of the sales growth forecasts – the reason is that automotive suppliers are afraid of the shortage of qualified labour, and they also understand that they will have to improve their operating efficiency to handle their expanding production. Efficiency and productivity have traditionally been areas where Hungary's automotive industry has been lagging behind in international comparison, so suppliers still have a lot to do so in this regard.

Almost two-thirds of the respondents believe that their sales growth will probably exceed 5% in 2018, and within that, more than half of the respondents predict double-digit growth, while the others expect an increase between 5% and 10%. A quarter of the companies completing the survey do not anticipate any significant change in their revenues for 2018, while 12% forecast a decrease.

Question 15
What rate of sales revenue change are you expecting in 2018?

Almost two-thirds of the respondents believe that their sales growth will probably exceed 5% in 2018, and within that, more than half of the respondents predict double-digit growth, while the others expect an increase between 5% and 10%. A quarter of the companies completing the survey do not anticipate any significant change in their revenues for 2018, while 12% forecast a decrease.
Question 17
Which of the following risk factors pose a threat to your company’s growth prospects?

- Lack of qualified staff: 78%
- OEMs’ continuous pressure on increase of productivity: 48%
- Pressure from competitors: 34%
- Continued slow or negative growth in developed economies: 32%
- Competition with production capacities outside Hungary: 26%
- Regulatory requirements of EU or national governments: 18%
- Slowdown in emerging (high-growth) markets: 14%
- Slow or inadequate reaction to global trends in the automotive industry in the own company, mainly relating to electrification, autonomous cars, mobility & car-sharing, digitalization & connected car, innovation speed: 14%
- Political situation in the United States: 12%
- Inadequate basic infrastructure: 10%
- Brexit: 8%
- Uncertainty in Eastern Europe: 8%
- Other: 4%

The number one risk to growth prospects is the lack of qualified labour: 78% of the respondents marked it as a threat. The pressure from OEMs represents a risk for almost half (48%) of the respondents. One third of automotive suppliers are also concerned about the increasing competition for customers and the slowdown in emerging markets. Brexit and the geopolitical uncertainty in the region, however, are less of a threat than the other factors in their opinion.
Question 18
In which areas does your company perceive increasing pressure from OEMs?

<table>
<thead>
<tr>
<th>Area</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price reduction on the current serial production</td>
<td>80%</td>
</tr>
<tr>
<td>Flexibility relating to purchase volumes of OEMs</td>
<td>42%</td>
</tr>
<tr>
<td>Disclosure of cost and price calculations</td>
<td>36%</td>
</tr>
<tr>
<td>Entry fees for new contracts</td>
<td>36%</td>
</tr>
<tr>
<td>Increased requirements relating to certifications</td>
<td>28%</td>
</tr>
<tr>
<td>Stricter payment terms</td>
<td>26%</td>
</tr>
<tr>
<td>Decreased compensation for development services/tools</td>
<td>18%</td>
</tr>
<tr>
<td>Pre-financing of development services/tools</td>
<td>16%</td>
</tr>
<tr>
<td>Disclosure of production plans</td>
<td>4%</td>
</tr>
<tr>
<td>There is no impact</td>
<td>4%</td>
</tr>
<tr>
<td>Other</td>
<td>6%</td>
</tr>
</tbody>
</table>

The pressure from OEMs is a major risk factor for suppliers, so we looked at its components in more detail. Price reduction on the current serial production is a strong expectation from OEMs, so 80% of the respondents perceive it as an increasing pressure. Flexibility relating to purchase volumes (42%), the disclosure of price and cost calculations to OEMs (36%) and the entry fees expected for new contracts (36%) put additional pressure on suppliers.

Question 19
Which of the following global trends impact your company’s operation the most?

<table>
<thead>
<tr>
<th>Trend</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrification</td>
<td>50%</td>
</tr>
<tr>
<td>Autonomous cars</td>
<td>12%</td>
</tr>
<tr>
<td>Mobility &amp; car-sharing</td>
<td>16%</td>
</tr>
<tr>
<td>Digitalization &amp; connected car</td>
<td>18%</td>
</tr>
<tr>
<td>Innovation speed, continuous hard-/software development</td>
<td>32%</td>
</tr>
<tr>
<td>None of them</td>
<td>32%</td>
</tr>
</tbody>
</table>

For automotive suppliers, it is extremely important to forecast and follow key industry trends if they are to remain competitive. Among the global changes in the auto industry, Hungarian respondents are most affected by electrification: half of the survey participants marked this factor in their responses. Innovation speed and continuous hardware/software development is also significant (32%). Other global trends, namely digitalisation, car sharing and autonomous cars, seem to have a lesser direct impact for now, selected by 10-20% of the respondents.
Question 20
Is the owner of your company planning to relocate production capacities from other countries to Hungary or from Hungary to other countries in the 12 months ahead?

Most respondents (54%) do not expect any relocation of production capacities. One-fifth of the survey participants predict the transfer of production units to Hungary, while 6% believe that production capacities may be moved from Hungary to another country. Another 6% anticipate shifts in both directions within their parent groups.

Question 21
Please state the main reasons for capacity transfers (e.g. lack of qualified labour, personnel costs, logistics, opportunities at OEMs, etc.).

Personnel costs rank first among the reasons for relocating production units, with 43% of the respondents naming this factor as a motive. The opportunities at OEMs also contribute to transfers: 20% believe them to be behind such decisions. The lack of qualified labour, logistics and locational disadvantages account for similar proportions, each marked by 10% of the survey participants as the reason for capacity transfers. In the medium term, the result is that cost-sensitive mass production may migrate further to countries with lower wage levels, and automation may increase. Hungarian workers, provided that they have the right qualifications, may be able to find new employment in the sectors linked to the new trends.
Question 22
Where are purchasing decisions needed for Hungarian production made at your company?

Although a large number (37%) of the companies surveyed make their production-related purchasing decisions at a local level, the group HQ is also involved at 27% of the respondents. Almost a third of the respondents say that the group HQ has sole responsibility for purchases, and no such decisions are made locally.
Question 23
What is the proportion of OEM-nominated suppliers within your component/material suppliers?

![Proportion of OEM-nominated suppliers](chart)

It is interesting to look at the proportion of material and components suppliers nominated directly by OEMs and to what extent OEMs try to influence the entire supply chain. The experience of half of the respondents is that there is relatively little influence over the suppliers’ sources of supply, with OEM-nominated suppliers representing less than 20%. A quarter of the survey participants reported that such nominated suppliers accounted for 20-50% of their supplier base, while another quarter of the respondents said that more than 50% of their suppliers were nominated, which indicates strong OEM influence.

Question 24
How likely do you feel that a new multinational OEM or Tier 1 supplier will be added to your existing clientele in the next 12 months?

![Likelihood of new suppliers](chart)

The positive outlook for 2018 is also attributable to the increasing number of customers: 20% of the respondents forecast robust growth in this regard, as they have signed contracts with an OEM or Tier 1 client. Another 38% believe that expansion is likely based on ongoing negotiations. 28% of those surveyed find it unlikely that they will sign new contracts in 2018, and only 14% say that they will certainly not be able to expand this year.
R&D, technology and optimisation

85% of the respondents believe to be affected by some elements of the Industry 4.0 concept, the increasing convergence of information technology and automation and thus the fundamental change in manufacturing methods. A quarter of the respondents already use Industry 4.0 solutions such as M2M, IoT, connected cars or AI, while the majority expect the new technologies to emerge in various areas of their activities – typically research and development, production or logistics – in the medium term.

Suppliers have to work hard on continuously improving their production efficiency and facilitating innovation so that they can meet the increasing demand and requirements. Automotive industry megatrends have accelerated the innovation cycle significantly. Automotive suppliers that manufacture conventional products with little need for research and development must already face a loss of markets in the short term. Electric cars have 60% fewer parts than vehicles that use traditional technology, and this trend could have a negative effect on the Hungarian auto industry and supplier network as well. The future of Hungary’s automotive industry lies in research and development in the fastest developing segments and in innovation.

For Hungary to remain an investment destination, it is essential to focus on infrastructure development, a strong educational background and a supportive research, development and innovation environment. According to the results of our survey, in connection with auto industry trends robotics is the technology that will be of strategic importance for more than 60% of automotive suppliers in Hungary within 5 years. It can be considered a positive sign that 13% of the companies surveyed are thinking about setting up a local R&D centre or providing local support for group R&D activities in the near future.
Question 25
Which of the following areas and activities does your company believe to hold strategic importance for itself?

In the automotive industry, the innovation activities of suppliers are also affected by legislation and social trends. 46% of the respondents believe that the development of production processes and technology is of strategic importance for their companies. 40% of the companies say that one of the focuses of their innovation activities is reducing the weight of products and using new materials. In addition to directly improving the efficiency of vehicles, companies are also making efforts to cut carbon dioxide emission. More than 30% of the survey participants follow the global trend related to the use of electric motors. Several companies are working on improving driving safety, developing driver assistance systems and accelerating their R&D activities. The topic of digitalisation and big data is also on the list of suppliers: one-fifth of the respondents consider it to have strategic importance.
Question 26
Which changes are you expecting to occur in the automotive industry regarding the future of diesel-fuelled vehicles?

- 22% Strong shift from Diesel to Gasoline
- 32% Strong shift from Diesel to alternative drive systems (electric, fuel cell)
- 50% Significant changes will depend on environmental-political decisions
- 28% Significant changes will depend on subsidies (e.g. shift of subsidies and tax benefits to electric vehicles)
- 6% No major changes expected
- 2% Other

Due to environmental pressures and their increasing maintenance costs, several cities are planning to ban diesel vehicles from their downtown areas in 5-10 years. Almost all automotive suppliers predict a shift from diesel, and only 6% think that there will be no major change in the proportion of diesel-fuelled vehicles. Half of those surveyed believe that the significant changes will depend on environmental-political decisions. Almost 40% of the respondents forecast a strong shift from diesel – the majority of this group believe that alternative drive systems will be the likely beneficiaries, while 22% think that gasoline engines will probably gain further ground. This trend is substantiated by consumer market research surveys: while diesel used to account for more than 50% of planned new purchases, now less than 20% of new buyers are contemplating this technology.

Question 27
In your opinion, how do global trends (electrification, autonomous cars, mobility & car-sharing, connected cars, faster innovation) impact product development and innovation cycles?

- 51% Will become a little bit shorter
- 32% Will become significantly shorter
- 2% will become a little bit longer
- 2% will become significantly longer
- 13% the global trends will not have an impact on our innovation and product life cycle

Looking at the impact of global trends, more than four-fifths of the companies surveyed predict shorter product life cycles and innovation cycles. 13% of the respondents believe that global trends will not have a substantial impact on the length of product life cycles.
Question 28
One of the major automotive trends of the future is the change in mobility. In what timeframe are you expecting this change to impact your company (e.g. impact of car-sharing programmes, changes in the individual mobility, availability of mobility to more persons, etc.)?

- 44% in more than 5 years
- 21% within 3-5 years
- 6% within 1-2 years
- 6% never
- 13% don't know/refused
- 10% it impacts already our activities

One of the key automotive trends of the future is the change in mobility, the increasing popularity of car-sharing, the changes in individual mobility and the availability of mobility to more persons. One-third of Hungary’s automotive suppliers think that they will be affected by this change in the medium term, that is, within 3-5 years or in more than 5 years. 10% of the respondents can already perceive that their activities are impacted by the change in mobility. As for car-sharing, the services launched in Budapest and other Hungarian cities in the last few months could help a lot in increasing its use and popularity.

Question 29
Do you agree that global automotive industry trends (e.g. electrification, autonomous cars, car-sharing, etc.) will have significant impact on your company’s future investments and external financing needs?

- 13% yes, we expect increasing investment and financing needs
- 26% NT/NV
- 40% yes, we expect increasing investment needs, which will be financed by our own cash flow
- 21% no increasing investment needs are expected

Looking at the impact of global auto industry trends on investments and external financing needs, in summary we can say that 40% of the companies expect increasing investment needs, which will be financed by their own cash flow. 13% of the respondents plan to use external funds to cover their increasing investment expenses, while 21% do not expect increasing investments in the near future. The current interest rate environment favours debt-financed investments, but interest rate levels are expected to increase in two years’ time, so those who invest at fixed rates in the next couple of years could gain an advantage.
Question 30
In what timeframe are you expecting the various elements of the Industry 4.0 concept (e.g. Smart Factory, Internet of Things, Connected Cars, etc.) to surface in your company’s research and development, production, logistics or other functions?

Some elements of the Industry 4.0 concept – such as smart factories, the Internet of Things or connected cars – appear in various areas of the companies’ activities, typically in research and development, production or logistics. 85% of the respondents perceive the effects of this phenomenon, but there are differences in the timeframe: 23% say that they use Industry 4.0 solutions already, 17% plan to do so within 2 years, and 31% plan to use new technologies in 2-5 years. 15% of those surveyed expect to use such solutions in the medium term, that is, in more than 5 years.

Question 31
Which of the following technologies will have the greatest strategic importance for your company within the next five years (particularly in relation to the aforementioned auto industry trends)?

In connection with auto industry trends, robotics is the technology that will be of strategic importance for the majority of automotive suppliers in Hungary within 5 years, marked by 62% of the survey respondents. Half of those surveyed mentioned digital factory solutions and a third of them selected cloud solutions. There already are production processes in the automotive sector with a high level of robotisation, such as body manufacturing.
Question 32
Data analytics is an important element of global automotive trends. In which areas does your company use data analytics to analyse, plan and forecast KPIs and trends?

- 60% Finance management
- 60% Production
- 52% Quality
- 46% Logistics
- 40% Sales
- 34% Purchasing
- 34% Maintenance
- 30% Warehousing
- 28% Human Resources
- 14% Marketing
- 2% Other

Data analytics is an important element of global automotive trends. The companies surveyed already use data analytics tools to analyse KPIs and trends – 60% use them in finance, 60% in production, 52% in quality assurance and 46% in logistics. The use of data analytics tools in planning and forecasting is less widespread in marketing and HR.

Question 33
The dissemination of new technologies is greatly dependent on the performance of corporate IT systems. How are IT tasks managed at your company?

- 9% Group IT
- 19% Strong local IT function
- 17% External IT provider
- 49% Small local IT function with strong support by Group IT and/or external IT providers

The introduction of new technologies is related to the performance of companies’ IT systems. Half of the companies completing the survey have a small local IT function, with strong support from group IT or external IT providers. 19% of the respondents have a strong local IT function, 17% have engaged the services of an external IT provider, and 9% manage the IT function through group IT. Increasingly data-based operations enhance the role of a local IT function, so we can expect investments in this area in the near future.
Question 34
Do you have local research and development competence and capacity?

- **32%**
  - No, R&D is managed at Group level

- **34%**
  - Yes, a local R&D service is provided to Group only

- **15%**
  - Yes, a local R&D service is also provided to third parties

- **6%**
  - Other

- **13%**
  - No, but we are considering building a local R&D or to participate/support the Group R&D activities

Half of the companies surveyed have research and development capabilities and capacities in Hungary, but most of them provide such services for the group only. Another 13% are considering building a local R&D centre or providing local support for group’s R&D activities. We can thus conclude that we can expect further growth in innovation carried out in Hungary, which is an important factor in maintaining a competitive edge. A third of the respondents say that research and development is managed at group level.
Question 35
New automotive trends also impact other industries. Which non-auto industry sectors will be most affected by automotive trends?

The new automotive trends will also have an impact on the related industries; according to the companies surveyed, the areas directly affected will be the energy industry, IT and software development, rental and leasing, and transport and logistics. There is a less marked relationship with infrastructure, telecommunications and insurance.

Question 36
Automotive trends will make co-operation within and outside the industry increasingly important. In which areas do you feel co-operation to be a viable alternative?

Automotive trends will make co-operation within and outside the industry increasingly important. Half of the respondents find it feasible to co-operate in the extension of the product/service portfolio and joint research and development. Another such area is the transfer of know-how and patents, marked by 40% of the respondents.
The lack of qualified labour was quoted as the number one risk to 2018 growth prospects – a third of the companies surveyed have already been forced to reject orders for this reason. Almost half of the respondents employ foreign workers; for 34% they account for a small proportion of the workforce, while for 14% workers from abroad make up a significant percentage of the total staff.

The development of the automotive industry has had a considerable impact on the development of the economies of Central and Eastern Europe. In recent years, the demand for qualified professionals has increased perceptibly. In addition to generational changes, the industry also has to cope with the problems of the educational system, which cannot keep up with the rate of development. The result of these trends is tremendous pressure on the job market, which mainly tries to respond to the situation with wage increases, the hiring of foreign employees, in-house training programs and a need for further simplification. The spread of robotisation and digitalisation requires several new professions and skills. Furthermore, education has to meet the robust requirements of lifelong learning and preparing people for the challenges of the labour market. Suppliers are more and more interested in robotisation in jobs where workers can be replaced with machines.

Question 39
Has the lack of qualified labour ever caused you reject orders?

The lack of qualified labour was quoted as the number one risk to 2018 growth prospects among Hungarian respondents – a third of the companies surveyed have already been forced to reject orders for this reason. A third of the respondents have been forced to cancel projects citing a labour shortage. The results of the Slovak survey show that while in 2016 the responses to this question were similar to those in Hungary, in 2017 half of the companies replied that they could not accept certain orders due to the lack of workers.
Question 40
In your opinion, which of the following factors are responsible for the fluctuation in existing labour force?

- Wage and salary conditions: 58%
- No interest in a long-term job: 42%
- Work in shifts: 32%
- Extensive overtime work: 24%
- Lack of employer image or more attractive companies in the surroundings: 24%
- Work environment (work load, tidiness, noise, etc.): 18%
- Distance between place of work and residence: 18%
- Relationships at work, communication: 16%
- Physically demanding work: 14%
- Other: 14%

The growth of the automotive sector and the shortage of qualified labour means that in addition to hiring new workers, retaining the existing employees is also essential. Therefore, we must examine not only the rate of fluctuation but also its causes. The primary reason for switching jobs is a higher wage, marked by 58% as the reason for fluctuation. It may give cause for concern that in the respondents’ experience employees often have no interest in long-term jobs. The survey indicates that working in shifts is another significant factor contributing to the employees’ decision to switch, as there are more flexible alternatives. 18% of the respondents marked the distance between work and home as a reason for fluctuation.

Question 41
What are the greatest challenges for the HR function at your company?

- Excessive salary expectations: 66%
- Lack of basic working attitude of new employees: 60%
- Unwillingness of staff to do shift work: 24%
- Unwillingness of staff to work overtime: 22%
- High share of manual work, lack of automatisation: 16%
- Adaptation and/or acceptance of foreign staff: 10%
- Other: 8%
- Unreadiness of management to meet young generation’s requirements: 6%
- Technological level of the company expected by employees: 6%

According to the companies participating in the survey, excessive salary requirements represent the greatest challenge for the human resources function: two-thirds of them struggle with remuneration expectations. New employees’ lack of a basic working attitude causes HR problems for almost the same percentage (60%) of the companies surveyed. 20% of the companies must face the fact that employees are unwilling to work overtime or do shift work.
Question 42
What measures is your company taking to increase your attractiveness as an employer?

Companies use various means to improve their image in the labour market as more attractive places to work. Most (80%) of them offer more appealing benefits, while 64% have changed their employee training programmes, trying to win over employees with training courses. Half of the companies surveyed help their commuting workers with public transport subsidies or a company shuttle.
Question 43
What are your company’s key local sources for recruiting employees?

Recruitment mainly uses the traditional sources: 76% of the companies search for new workers through job advertisements and with the help of headhunters, but the employment of disabled or long-term unemployed people or the introduction of part-time work is rare. Recommendations by existing employees are a very important source: 68% of those surveyed used this channel. In addition to a labour shortage, companies can also see that educational institutions do not prepare their graduates for finding a job and working – in the absence of any practical experience, the majority (52%) of companies need to operate intensive internal retraining programmes. Half of the companies surveyed also recruit through local schools and universities.
**Question 44**
Does your company employ workers from abroad (own staff and temporary workers)?

- **52%** No, we are able to hire staff within Hungarian labour market
- **14%** Yes, they represent a significant source of new hires
- **34%** Yes, but they represent a marginal source of new hires

Almost half of the respondents employ foreign workers; for two-thirds of the companies in this group, they account for a small proportion of the workforce, while for the remaining third, workers from abroad make up a significant percentage. Only 52% of the companies claim that at the moment, they can hire the required staff from the Hungarian labour market.

**Question 45**
In your opinion, what measures can automotive suppliers take to facilitate the recruitment of additional labour force?

The respondents would take various steps to make their company more attractive: in addition to better working conditions, they also mentioned competitive remuneration. Cooperation with schools, dual education is another recurring element among the responses. Housing allowances and an affordable rental apartment programme are other factors that many believe would have a positive effect on recruitment. Companies are also starting to recognise the significance of employer branding; they hope that they can use this tool to positively distinguish themselves from the competition.

**Question 46**
In your opinion, what are key success factors that can help the Hungarian automotive industry remain competitive in the future?

Automotive suppliers believe that the key success factors that can help Hungary’s auto industry stay competitive are higher added value and attracting R&D operations and innovation to Hungary. This is closely linked to an economic environment that supports innovation and to the creation of favourable tax conditions. Training professionals with competitive knowledge, encouraging workforce mobility and increasing the recognition of skilled work are also essential. Support for Hungary’s small and medium-sized businesses, efficient investments that use modern technology and are financed with equity, and automation may also represent breakout opportunities.
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