A Study on the Hungarian Automotive Industry

Market Opportunities for Canadian Automotive Suppliers

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A total of approximately 100 billion dollars of working capital have been invested in Hungary and only 2.1 billion of those by Canadian companies, which still leaves room for improvement in terms of cooperation. The significance of the automotive industry is highlighted by the strategic agreements signed by the Hungarian government with industry players.[1] This study is designed to provide potential Canadian automotive suppliers with factual information and help increase the ratio of Canadian investments in Hungary.

The current state of the automotive industry in Europe

60 percent of European car manufacturers are operating below 75% of their capacities, the generally accepted profitability level. Their total capacity is 20 million vehicles a year but demand in 2013 amounted only to 14 million.

In January 2014 a total of 206,000 cars were sold in Germany, a 7% increase from a year before. Sales increased by 8% to 155,000 in Great Britain, by 1% to 125,000 in France, by 3% to 118,000 in Italy, by 8% to 54,000 in Spain.

For the first time in 14 years, Opel was able to increase its European market share in 2013 (by 0.02 percentage points). The company, however, has been making losses and suffering from shrinking sales figures for the same period. Rüsselsheim will be home to a new production model based on the Opel Insignia platform. Eisenach will play a role in the production of the next generation Adam and Corsa models. Kaiserslautern will have a new pillar in component manufacturing. The factory in Bochum is scheduled to close at the end of 2014. Opel is expecting to make profits from 2016 again. [2]

PSA Peugeot Citroen has reduced its capacities by 13% by closing down factories. The Peugeot 308 won the title "Car of the year 2014". Orders for over 60,000 units have been placed since the model was introduced, which caused the manufacturer to expand production with the 3rd shift in its
Sochaux factory.\[^3\]

**FIAT** has acquired Chrysler to reach the annual production level of 6 million cars that would fit a global manufacturer. They still have 1.5 million to go and the question is whether they will have the money to finance it. Actually, Fiat is making losses and even though its European market share is 6.2%, it melts to only 2% without Italy. Fiat suffers from the same trends as its competitors: the crisis years have seen a drop in sales of medium-category cars while those of cheaper and more expensive models have soared.

Originally manufactured only in Romania but now also in Morocco, **Dacia**, **Renault**'s economy brand is a perfect example of how you can make cars resistant to the crisis: the increasing number of models proves that even somewhat obsolete technology can get you from point A to point B. Dacia was the success story of the year 2013 with a 20% increase in sales. Despite its low price, it has an average profit rate of 8%, which is comparable to that of German luxury makes. Renault has been able to increase its sales prices by 7% over the past 24 months. This success is in part due to the popularity of the Clio and Capture models.

**Luxury makes still sell well.** Rich customers do not pay too much attention to price but focus on quality and prestige. They tend to order their new cars with lots of extra features, which further increases manufacturer revenues. In comparison to the 6–8% profit on average cars, luxury makes are in a much better position: **Porsche**, for instance, makes a profit of 18%.

**Audi**'s global sales reached 124,850 cars in January 2014 primarily due to an increase customer demand in Germany and China. Demand for their compact vehicles has grown significantly. Audi plans to sell 2 million cars per year until 2020. To back up this plan, the German manufacturer will invest EUR 22 billion in the coming 4 years, a record amount in the company's history. Making 40% of the profit of the Volkswagen Group, Audi will increase the number of its models from 49 to 60.

The **BMW** Group sold close to 132,000 motor vehicles in January 2014, which marks the strongest start of the year in the company's history.\[^4\] The luxury car manufacturer's success was mainly due to the X3 and 5 series but the 3 series is still popular and demand is high for the new 4 series as well. January 2014 saw a 22% increase in sales in Asia (especially in China) compared to a year before. BMW was also able to boost its European sales by 1.5%. Sales figures are expected to grow in 2014 mainly due to new models like the i3, the i8, the X4 and the 2 series.

**Mercedes**-Benz (Daimler), BMW's rival, also reported growth with 109,477 vehicles sold in January 2014 worldwide.\[^5\] The primary factors behind this success is growing demand for the CLA model manufactured in Kecskemét and also the updated S class. This year the company is planning to expand its retailer network in China. Daimler's worldwide sales plan is 1.5 million vehicles for 2014 and 1.6 million for 2015. Mercedes is planning to take back the lead in the luxury segment by 2020 with help from 13 new models. Also the world's largest truck manufacturer, Daimler has successfully implemented cost-cutting methods with its "Fit for Leadership" program reducing material costs, increasing manufacturing efficiency and implementing more flexible HR management until 2014.

**Volkswagen** supplied the world market with 515,700 cars in January 2014, the best start of the year in the company's history. Its European sales increased by 3% to over 126,000 in Europe, by 14% to close to 268,000 in China but fell by 20% to 23,500 in the U.S. compared to the same month a year before. The VW Group is planning investments in development totalling EUR 84 billion in 5 years designed to catapult them to the position of the world's no. 1 car manufacturer by breaking the 10 million production barrier. As far as cutting production costs, Volkswagen has been the pioneer in the
standardisation of engines, gearboxes, chassis, etc. among models and makes over the past decade. [6] Successful sales of Volkswagen, BMW and Audi is due to their well-established global markets and are thus less exposed to the impacts of the shrinking European market. [7] The growth-rate is slowing in China, the world’s largest automotive market, where over one-quarter (22 million) of the world’s total production of 82 million vehicles were sold in 2013. As this slow-down still accounts for an approx. 10% growth, all foreign manufacturers work hard to get to the Chinese market.

The current state of the automotive industry in Hungary

Hungary has become one of the European centres of the manufacturing of motor vehicles and this is the country’s most successful industry. 2014 is expected to see growth in the automotive industry. [8] Information on the Hungarian automotive industry:

- The automotive industry produced a value of EUR 17.8 billion in 2013, which is close to 20% of the entire manufacturing industry output. Orders in the automotive industry in September 2013 were 80% higher and in October 2013 20% higher than during the same period of a year before, which is very promising for 2014.
- The automotive industry is one of the driving forces in Hungarian export output. Over 93% of the sector’s revenues are from export: 80% of the engines and 90% of the cars manufactured in Hungary are exported. The industry is responsible for 10% of the gross domestic product (GDP); its total export revenues amount to EUR 16.6 billion, an equivalent of 18% of the total products exported.
- 15 of the 20 Tier 1 [9] of the Automotive industry are represented in Hungary. They created 2000 new jobs in 2013. The 5 largest of them (BOSCH, Denso, Knorr-Bremse, Hankook Tire, Continental) work with 5,700 small and medium Hungarian businesses as their subcontractors or suppliers.
- The 712 vehicle industry businesses currently operating in Hungary employ 115,717 people.
- The Hungarian companies of the 4 large car manufacturers (Mercedes, Audi, Suzuki, Opel) produced 312,000 cars and 2.27 million engines in 2013.

Over EUR 4 billion worth of foreign capital have been invested in the sector over the past 5 years. [10] Every single car manufacturing plant in Hungary increased its output in 2013. Of the 39 strategic partnership agreements signed by the Hungarian government since 2012, 13 have been concluded with motor vehicle companies, and negotiations are currently in progress with additional automotive firms.

In addition to the A3 Convertible, Audi Hungaria Motor Kft. also produced the A3 limousine at the new plant opened in the summer of 2013, totalling 42,000 cars. The company is the primary engine supplier for the makes within the VW Group. Audi has invested EUR 4.883 billion in Hungary and manufactured 25 million engines since 1994 in addition to the 500,000 cars produced since 1998. In 2013 they manufactured 235 types of engines with a total production of 1,925,636 units. They expect to produce a record-high 125,000 new cars in 2014 at the plant currently employing 10,582 people (only 4,828 in 2002). 2014 will see production of the third-generation of the TT roadster and new, innovative engines to Hungary. Initially, Győr was home only to the final assembly of the body parts shipped in from Ingolstadt, Germany. Now, the Hungarian plant also stamps and assembles the
The financial crisis was already in full swing in 2008 when Mercedes decided to invest EUR 800 million and build a plant in Kecskemét. Mercedes-Benz Manufacturing Hungary Kft. began production in 2012 and manufactured 40,000 cars. Since then they have reached a total production figure of 150,000 vehicles (the B class and the CLA combined). Manufactured end-to-end in Kecskemét, the CLA compact car is a successful model and is sold in over 180 countries. The plant is running at full capacity and is expected to turn out over 100,000 cars and increase the workforce currently at 3,000. The plot of land owned by the company can accommodate another huge factory hall.

Magyar Suzuki Zrt. has been operating in Hungary since 1992 and it was the first company to build a car manufacturing plant in Hungary (an investment of EUR 140 million) after the change of the political regime in 1989. Suzuki's only European production plant is in Esztergom. Initially, they planned to make 50,000 cars a year. They reached the peak in 2008 with 281,626 vehicles produced. In 2012 the Esztergom plant turned out 12% fewer Swift and 6% fewer Splash/Agila models than in 2011. The total production figure in 2013 was 162,000 cars with 3,107 employees (as of September), and it was last year when production of the SX4 S-Cross compact cross-country vehicle began. Suzuki plans to make 200,000 cars this year and to start working on the launch campaign of the new model scheduled for release in 2015. Suzuki is the make with the most cars in Hungary even though its sold fewer than 5,000 in 2013 compared to the 39,000 in 2005. They also sold 130,000 cars to other European countries, which makes up 1% of the European car market.

Asia is becoming the new hub of the vehicle industry.

The Hungarian Opel plant was established in 1990 with an investment of EUR 1.4 billion for the end-to-end production of the new Astra model. Since 1992 the plant has been making only engines, cylinder heads, engine blocks, piston rods, crankshafts and also automatic gearboxes for commercial vehicles (Allison). They refurbish gearboxes for the GM's Vauxhall plant in England too. The plant also refurbishes the spindles of tooling machines. So far, the Hungarian Opel plant has produced 7.5 million engines, 6 million cylinder heads, 170,000 automatic gearboxes and has refurbished 45,000 gearboxes in total. One of world's most modern engine manufacturing plant, the Flex factory was finished in 2012 from an investment of EUR 700 million and production started in 2013. The new plant is called "Flex" because the same line of machinery can make different engines, i.e. diesel and petrol engines with 3 or 4 cylinders. In comparison to the 290,000 engines produced by the old plant in 2012, the Flex factory and the old plant combined turned out 354,000 engines in 2013. Opel is scheduled to introduce 20 new engine families in 2014 and make 400,000 of those in the Hungarian plant, which may increase the current workforce of 1,000 by another 400. In February 2013 a new EUR 130 million investment project was announced and in July another investment worth EUR 60 million was launched. 620,000 of the new 1.8 litre petrol engines are scheduled for production in 2016, in addition to the 300,000 old ones. Some 70% of the products are shipped to other GM plants abroad. The Hungarian Opel plant plans to become a GM engine competency centre with Hungarian development.

The two most important professional organisations:

- Association of the Hungarian Vehicle Component Manufacturers
- Association of the Hungarian Automotive Industry

The current state of the supply industry in Hungary

Hungary's advantages from an investor's point of view:
• good geographical location (centre of Europe)
• stable political environment favouring investments
• good governmental efforts for development
• low basic rate of the central bank
• competitive labour cost
• competitive language skills of the workforce
• The Labour Code (Act I of 2012) offers flexibility to employers.

Hungary's *disadvantages* from an investor's point of view:

• low workforce mobility within the country
• educational institutions do not train students for the needs of the industry
• the banks have introduced the transaction fee
• no raw materials are produced for the automotive industry in Hungary.
• the country's long-term objectives are not visible.

Typical fields of expertise in terms of supply: mechanical industry, electronics industry, plastic industry, rubber industry. All of these fields can provide direct and indirect suppliers.

• Direct suppliers perform *ongoing* deliveries whose results (the products) are built into the cars. Typical direct supplier activities: continuous parts production, component assembly.
• Indirect suppliers perform *ad hoc* deliveries whose results (the products) are not built into the cars. Typical indirect supplier activities: building of production plants, delivery of custom equipment. Such suppliers can mostly get involved when a large-scale investment project is launched.

The Hungarian companies of the 4 large car manufacturers procure from 229 Hungarian suppliers.

• Three-fourths of the construction works of the manufacturing plant of *Audi* Hungaria Motor Kft. finished in 2013 with an investment of EUR 900 million were completed by Hungarian companies in the amount of EUR 350 million. 3,000 external service providers commute to the plant every day, which means that a total of 16,000 people are indirectly employed by Audi.
• *Mercedes*-Benz Manufacturing Hungary Kft. works with 25 Hungarian suppliers including international companies like Magna. They deliver their products not only to Kecskemét but also to Rastatt. Over 90 percent of the plant's implementation works were completed by Hungarian companies.[11] The plant's operation opened up additional business opportunities to local entrepreneurs, e.g. service providers. Mercedes wants to increase the number of its suppliers but it cannot be forced.
• In 2012 Magyar *Suzuki* Zrt. had 276 Hungarian suppliers, 78 of them global suppliers. Most of the companies from the first group of suppliers are still suppliers.
• *Opel* Szentgotthárd Autóipari Kft has Tier 2 and Tier 3 suppliers.

**Knorr-Bremse** Fékrendszerek Kft.

• 30% of the direct suppliers are Hungarian companies (approx. 50)
• 80% of the indirect suppliers are Hungarian companies.

**Denso** Gyártó Magyarország Kft. is planning to employ Hungarian suppliers.

**BMW** spends 3 out of 100 euros in Hungary even though the car maker has no car manufacturing plant in Hungary. The BMW Group purchases parts from 54 direct suppliers in the amount of EUR
billion per year. Those companies employ approx. 10,000 people in Hungary. An additional 42 companies are in Hungary who may become BMW suppliers in the future.[12]

**Priority vehicle industry centres** have been established. The title "priority vehicle industry centre" ("kiemelt járműipari központ" in Hungarian) refers to a mid- to long-term complex regional development and teamwork where the OEM with its extensive supplier network is not the only member.

- **Nyugat-pannon Járműipari és Mechatronikai Központ**: The region of Szombathely, Szentgotthárd and Zalaegerszeg. The region employs close to 20,000 people in vehicle manufacturing and mechatronics. Capital investments amounting to EUR 1 billion and 25,000 new jobs are expected in 5–10 years. This would establish that region as a strong mechanics and electronics centre. Members of the project include: Szombathely, Szentgotthárd and Zalaegerszeg (later joined by Nagykanizsa), as well as economic interest groups, training institutes and key businesses of Vas and Zala counties.
- **Mercedes and the related suppliers** justified declaring Kecskemét a priority area. This has brought along a number of collateral development opportunities in terms of housing, local transportation, college developments, etc.

The [Hungarian Investment and Trade Agency](https://www.investhungary.com) has established a certified [supplier database](https://www.investhungary.com).

**Supplier requirements (by OEMs)**

Large corporations publish their supplier requirements on their website (e.g. [Audi Hungária Motor Kft.](https://www.audi.hu)). There is no clear difference between the requirements of multinational corporations in the automotive industry and those in electronics. Plastic and rubber industry companies supply both industries. Their main criteria:

- price
- quality
- supply capacity (quantities and deadlines).

Price is the most important: customers continuously push down supplier prices.

Potential suppliers have to react fast to customers' searches for suppliers and register accurately. They have to be resilient, patient and apply multiple times. They have to meet the following criteria:

- A company size that guarantees a stable financial background.
- Properly documented and evidenced professional reputation and presence
- IT compliance (software compatibility with the Customer's software)
- Transparent operation and processes
- Certified ISO quality control system(s) – both evidenced and operational
- Property insurance evidenced
- Good communications skills
- Trust in and attraction to the company manager.

The process of becoming a supplier:

- Request for written materials (company info, references, financial data, etc.)
• Request for proposal based on key data and then evaluation of the proposal
• On-site inspection at the applicant's site and then an assessment report is prepared
• Request for proposal based on detailed information and then evaluation of the proposal
• Sample production (sample 1)
• Approval of products and the manufacturing process (PPAP) [16]
• Final audit
• Conclusion of the supplier framework agreement.

The lengthy process of becoming a (direct) supplier may last up to 1.5–2 years. Often the process requires going through the parent company's international procurement centre (e.g. Audi and Opel).

OEMs help supplier development. Mercedes-Benz Manufacturing Kft., for instance, has set up a Central and Eastern European supplier and development centre in Hungary to overcome language and geographical barriers and to react to issues quickly and efficiently. Initially, the team of process auditors prepared suppliers in terms of quality. Procurement has also been given priority since November 2013 as a preliminary filter for the procurement department in Stuttgart.

BMW has an 8-step supplier selection process. The key question for the them is whether the supplier can develop and grow with BMW. The Bavarian car manufacturer wants suppliers open to innovation (e.g. carbon-fibre chassis), develop their products, are able to design, are competitive with the Chinese manufacturers in prices, and present new ideas, materials and technologies. In addition, BMW is interested in two more issues: cost and weight reduction. The company allows a profit rate of 7–10% for its suppliers, the same rate BMW uses. Hungarian suppliers has no competitive edge over German suppliers in terms of energy or raw material prices, plus they have to pay the costs of logistics. [17]

OEM representatives perform regular audits. Auditors want to stand by the machinery to see how processes work because they audit the manufacturing process rather than the quality control system. If audit is regularly successful, the OEM will recommend the supplier to other member companies of the company group.

The labour market and training

The Hungarian subsidiaries of the 4 large car manufacturers

• employed a total of 17,400 people in 2013, of which 2,500 were new employees
• 1 job at a car manufacturing plant creates 3–5 jobs with the suppliers
• closely cooperate with 6–7 institutions of higher education.

The 3.5-year dual college-level programme designed after the German model teaches practical skills in addition to theoretical knowledge. Students receive their practical education at the company. The Hungarian government plans to allocate HUF 50 billion to strengthen dual professional training between 2014–2020. This amount is sufficient to build 7,000 apprentice shops.

In the context of dual training, Audi Hungaria Motor Kft. has 250 apprentices in 13 specialities (over 1,200 students since 2000).

Implementing a new plant and operating it with qualified professionals is a huge challenge. To prevent the expected shortage of skilled professionals, Mercedes-Benz Manufacturing Hungary Kft. began the search and hiring process 2 years before the scheduled production date of 2012. Selected applicants were sent to special trainings in Germany. This ensured that by the time the plant was completed
and production began, they had already had the appropriate initial teams of Hungarian engineers, maintenance personnel and workshop foremen. Mercedes invested lots of time and money to prepare their employees but it was fundamental to starting the production of a premium product. In addition to their base salaries, all employees receive additional benefits (attendance bonus, 13th month's wage, performance bonus, company physician service, subsidized menu at the cafeteria, free sports facilities, free test drives with B and CLA class cars, etc.).[18] In the context of the dual training programme, the company has

- 96 apprentices in 4 professions. The first group of students are scheduled to graduate in June 2014.
- 21 college students. The first group of students are scheduled to receive their degree in automotive engineering in 2015.

Fresh-out-of-school engineering start with a salary of HUF 300,000–400,000. Even though these salaries are much higher than the Hungarian average, the "brain drain" influence of foreign job markets is clearly felt. Many Hungarian engineers find jobs in Germany with a higher demand for professionals and offering higher salary levels. Migration to foreign countries, however, is not so significant that it would endanger Hungarian production.

**Tendering opportunities**

Foreign companies usually use the business form kft. (ltd.) or zrt. (plc.). The articles of association of the foreign company may be needed in addition to a certified translation of the certificate of incorporation of no more than 3 months old. Mostly paper-based, original (issued by the authorities) documents are needed.[19]

The tendering procedure has been changed: whereas the National Development Agency used to manage applications, beginning this year the ministries will manage them.

Hungary has submitted to the European Union the Partnership Agreement for the 2014–2020 budget cycle.[20] The budget will have a total of HUF 7,480 billion with additional funds from regional subsidies and the single area payment scheme. 60 percent of the sources (HUF 4,431) will be spent on economic development. Some of the funds will be non-refundable grants designed to aid supplier development. **Priority is given to automotive suppliers.** Research and development has HUF 800 billion available and an additional HUF 1,100 billion for increased employment and also available for infrastructural development. Giving young people jobs is a priority with HFU 200 billion available and another HUF 120 billion allocated to support adult training. The following operative programs will be launched:

- Gazdaságfejlesztési Innovációs Operatív Program (GINOP) – an innovation programme designed to improve the economy: with a total appropriation of HUF 2,718.5 billion and 36.4% allocation
- Terület és Településfejlesztési Operatív Program (TOP) for regional and urban development: with a total appropriation of HUF 1,157 billion and 15.5% allocation
- Versenyképes Közép-Magyarország Operatív Program (VEKOP) to increase the competitiveness of Central Hungary: with a total appropriation of HUF 269.3 billion and 3.6% allocation
- Emberi Erőforrás Fejlesztési Operatív Program (EFOP) for human resources development: with a total appropriation of HUF 884.9 billion and 11.6% allocation
• Környezeti és Energetikai Hatékonysági Operatív Program (KEHOP) for environmental and energy efficiency: with a total appropriation of HUF 1,117.8 billion and 14.9% allocation
• Integrált Közlekedésfejlesztési Operatív Program (KOP) for integrated transportation development: with a total appropriation of HUF 1,034.2 billion and 13.8% allocation
• Közigazgatás-Közszolgáltatás-fejlesztés Operatív Program (KÖFOP) for the development of public administration and public services: with a total appropriation of HUF 298.5 billion and 4% allocation

GINOP: It is expected to call for proposals in the first round for procurement of assets as well as technology, site and IT development and there will be a tender invitation for site purchase combined with credit. Cluster membership, projects to be implemented in industrial parks as well as innovation management will be given extra points during the tender evaluation phase.

VEKOP: The criteria for productive investments are less favourable and investments by large enterprises may be funded only under certain conditions.\(^{[21]}\)

The tenders will be announced in the second half of 2014. Access to EU funds, however, is prevented by the EU regulation that stipulates that the small and medium business (SMB) status depends on the size of the entire company group and not just the specific bidding company. Thus, a business employing 50 or 100 people in Hungary cannot submit its application for SMBs if it qualifies as a large enterprise together with its parent company.\(^{[22]}\) Funding for significant "greenfield" investments may be granted by way of a special government decision.

Company interviews

Linamar Hungary Autóipari és Gépgyártó Zrt.

Company info

• Name, contact information: Linamar Hungary Autóipari és Gépgyártó Zrt. / H-5900 Orosháza, Csorvási út 27., János Ivanics CEO
• Interview subject: János Ivanics CEO, phone: 36-68-514-654, email: janos.ivanics@linamar.com.
• Headcount: 2,189 own employees and 500 outsourced workers.
• Number of shifts: 3 or 4 (in certain areas)
• Revenues: HUF 40.486 billion in 2012, HUF 43.205 billion in 2013. 74% of the revenue comes from the automotive supplier business. Linamar plans to triple its revenues by 2020 in which Hungarian sites may play a significant role.

Company history

1948: The agricultural equipment assembly and repair site is founded in Orosháza where later corn cob crushing machine adapters and combine components were manufactured.


1993: With the assembly of vacuum pumps, Mezőgép Rt. Orosháza starts its automotive supplier activities in the Linamar Products Division (LPD) plant.


1995: LPD obtained the first Ford Q1 Preferred Quality Award to be awarded in Hungary and thereby
became one of Ford's direct (Tier 1) suppliers.

1997: Mezőgép Rt. Orosháza went public as its shares started to be traded on the Budapest Stock Exchange.

1998: The Company expanded with two new divisions: Orosháza Automotive Division and Precision Part Manufacturing Division (PPM). Orosháza specialises in machining automotive and other products while the PPM of Békéscsaba focuses on large-sized and highly accurate parts (automotive generator axles, housings, etc.).

2002: Mass production starts on General Motors' (GM) CVT parts and turbo housings. The Company achieved the ISO/TS 16949 certification.

2003: Under the new name Linamar Hungary, the company became a supplier to additional automotive OEMs.

2013: The Company closed its "Autóipari kapacitásbővítés" (Automotive capacity expansion) tender project. The project was financed from the European Regional Development Fund from the Hungarian central state budget. With funding from the New Széchenyi Plan, 150 new jobs were created.

To receive funding for the HUF 3.5 billion investment project, the company applied for a special government decision.

Linamar Corporation was founded by Hungarian born Frank J. Hasenfratz, a toolmaker by profession. He emigrated to Canada in 1957 where he established Linamar, his family business in 1966. He is still the company's president and his daughter, Linda Hasenfratz is the company's CEO. By the time it was privatised, Mezőgazdasági Gépgyártó Vállalat of Orosháza had long been a supplier to the combine manufacturer Western owned by Linamar. Therefore, Linamar knew exactly what they were buying.

Linamar Corporation is continuously growing. In addition to its plants located in Canada and the United States, they opened new divisions first in Mexico, then in Europe (Hungary, Germany, France) and most recently in China. Linamar always sets up plants wherever its market share makes it reasonable to do so. They supply European plant with what they need on the European market. The company is the largest machine industry business in the South Great Plains.

Supplier requirements

Road shows have been organised for OEMs to facilitate networking with the automotive industry. Customers detail their requirements for the suppliers. The first step is to submit their business proposal. Next they have to meet general expectations (ISO 9001 quality control certificate, organisational questions, employee trainings in Canada, etc.), for which they get support from the parent company. Ford certified the company first for assembly and then for component manufacturing. Representatives of their customers conduct audits with the company at least once a year, after which they evaluate the results.

- The PPM division performs accurate machine cutting of dosing system components and large axles. The company manufactures all the tools and equipment needed for machining.
- The LPD division manufactures gearbox and engine parts, steering wheel columns, vacuum pumps and dosing system components.

Key automotive customers (OEM): Magyar Suzuki Zrt., Denso, Volkswagen, Delphi (England, France), Hitachi, Bosch.
The business operating environment

The road network is an issue: the quality of roads is poor and no motorway connects Orosháza or Békéscsaba.

Insufficient supply of professionals: college-level training is not geared towards the needs of the industry and there is a shortage of skilled workers. The company is forced to provide advanced training to their employees in their special workshops (e.g. machine setters for 6 months). To solve this issue, Linamar Hungary Zrt. has joined the **dual training system**. In addition to theoretical knowledge, this nationwide new training system offers students the opportunity to get practical experience under real factory conditions at the company.

- Linamar Hungary Zrt. has joined the dual *higher level* training programme of the Faculty of Mechanical Engineering and Automation (GAMF) of Kecskemét College. In the context of this training, the first 12–14 weeks of the semester are used to introduce students to theoretical knowledge at the GAMF faculty of the college. Then they can start their practical internship period of 5 to 8 weeks at the company. The academic year closes with an 8-week summer internship. The company offers the option of dual college training to mechanical engineering students specialised in manufacturing information technology, material technology and quality assurance or mechatronics.
- Within the context of the *secondary level* dual training programme, the Company teaches vocational school students the practical application of their school knowledge under real factory conditions. The secondary level dual training programme of the company is open to trainees to become cutting machinist, welders, toolmakers or electronic mechanics.

The company has a solid base of Hungarian suppliers. In 2011 Linamar purchased products worth HUF 16 billion from Hungarian suppliers. This amount was paid to suppliers, carriers, tool manufacturers, etc.

Linamar also performs research and development activities. OROS Division is involved in *product development*, i.e. corn and sunflower adapters (cutting tables) to combines. They only perform technological development in their automotive divisions.

The company is also involved in various professional organisations with memberships held in the Association of the Hungarian Vehicle Component Manufacturers and the National Association of Agricultural Machinery Manufacturers and working as a mentor in "Gépipari Beszállítói Innovációs Klaszter", an innovation cluster of machine industry suppliers.

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**Experience and proposals to potential Canadian automotive investors**

- The automotive industry plays an increasingly important role in Hungary. A growing number of Tier 1 OEMs come to this country.
- Hungary's geographical location is excellent. The countries of Europe (Germany, France, England, the Czech Republic, Slovakia) with advanced automotive industries can be easily reached from here.
- Sufficient knowledge of local specialities is important and, therefore, setting up a Hungarian management is recommended.
- Labour costs are competitive.
The number of employees to hire depends on the level of automation the investor plans to achieve: the more the robots the smaller the workforce need.

One of the problems is that permit procedures are burdened with heavy bureaucracy.

Another issue is that regulatory elements (taxes, duties) change frequently, which complicates planning.

Yet another problem is the hectic changes in the HUF exchange rate.

Significant capital power is needed to finance production and improvements to purchase materials, machinery and tools, expand existing and build new factory halls.

A profit rate of 8–10% is a realistic objective.

Scarcity, market niche: lack of automotive industry quality raw materials. Few iron and steel alloy manufacturing, forging and chassis sheet metal producing companies.

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**Magna Automotive (Hungary) Kft.**

**Company info**

- Interview subject: János Sági, HR Manager, phone: +36-76-551-551, email: janos.sagi@eu.magna.com.
- Headcount: 460 own and 70 outsourced workers.
- Revenues: EUR 6.4 million in 2012 and EUR 45 million in 2013. The latter also includes export-related revenues as Magna also transported its products to its plant in Rastatt, Germany, to fit those into the A class cars in the Mercedes plant in Rastatt. 100% of the revenue comes from the automotive supplier business.

**Company history**

The company was founded in 2010. The plant was completed by late 2011 and opened in 2012. 17.4% of the total investment cost of EUR 24 million was co-financed by the EU within the framework of the New Széchenyi Plan as non-refundable grants (application GOP 2.1.3 of 2011). The company has also applied for funding to purchase new machinery for exports in the amount of EUR 3.5 million. This new investment received 20% funding (application GOP 2.1.3 of 2012).

The Hungarian Magna's parent company is one of the world's largest car component suppliers with virtually all large car manufacturers ordering interior, batteries, airbags, electrical components, seats, dashboards and body parts. Owned by the Austrian-born Canadian Franz Stronack, the Magna Group produces an annual value of 20 billion dollars in 275 plants worldwide and employs 125,000 people. In addition to Magna Automotive (Hungary) Kft., the parent company has interests in the following other Hungarian businesses:

- Cosma Alu Structures Kft. (Székesfehérvár): a supplier of Audi aluminium components.
- Magna Car Top Systems Kft. (Szügy): belongs to Magna Steyr and supplies roof components to cars.
- Plastimat Magyarország Műanyag-gyártó és Fejlesztő Kft. (Esztergom; Magna is a minority owner): supplies Magyar Suzuki Zrt. with interior door panels.
Supplier requirements

Magna manufactures the interior (plastic) upholstery elements of cars such as stamped interior door panel sheets, carpets with polyurethane foam back, car boots, mounted linings on the floor and the side walls). The company is one of the suppliers of Mercedes-Benz Manufacturing Hungary Kft. Representatives of the customer initially checked production on a daily and then on a weekly basis to contribute to employee development.

The company is ISO 9001, ISO/TS 16949 and VDA 6 certified.

The business operating environment

Magna is completely satisfied with the infrastructure (proximity of motorway M5, etc.)

The company is responsible for and fair to its employees. These principles are defined in their publications entitled "Fair Enterprise" and "Magna Employee Charter".

They are not satisfied with the level of vocational training for skilled workers and they had to teach the trade using follow-up factory training. As far as the quality of higher education: Magna only hires engineering graduates from the Budapest University of Technology and Economics or from the University of Miskolc.

Magna does not perform any research and development activities.

The company is a member of the AIPA Regional Industry Development Cluster of the Great Plains.

Experience and proposals to potential Canadian automotive investors

- Hungary's geographical location is excellent in the middle of Europe.
- You can find quality workforce.
- During the growing phase of the company a Hungarian managing director is recommended to work with another from the parent company. The Canadian director can identify expectations and the Hungarian counterpart can translate those expectations to the language of Hungarian employees. Hungarians cannot be managed by orders. Application of the "we all are in the same boat" principle is more effective. Salary is not the only criterion as employees need positive feedback and praises.
- The managers overseeing production should be Hungarians.
- Hungarian bureaucracy is an issue. Contract a consulting company to take care of company registration, payroll, accounting, monitoring of legal changes, etc.

Wescast Hungary Autóipari Zrt.

Company info

- Name, contact information: Wescast Hungary Autóipari Zrt, H-2840Oroszlány, Szent Borbála u. 16., László Veres, European CEO.
- Interview subject: László Veres, European CEO, phone: +36-34-562-106,
email: laszlo.veres@wescast.com.

- Headcount: 1,120 own employees and 270 outsourced workers.
- Number of shifts: 3; shift no. 4 is currently being implemented.
- Revenues: EUR 71.324 million in 2012 and EUR 77.920 million in 2013. 98 percent of the company's revenues originate from automotive supply activities and the remaining 2 percent from supplies to other vehicle industry applications (e.g. tractor manufacturing).

**Company history**

Weslin, the company's predecessor, was founded in 1999 by the very same Frank J. Hasenfratz of Orosháza who emigrated to Canada in 1957 and founded LINAMAR. Production in the greenfield investment plant began in 2002. In 2006 Weslin brought out Linamar's shares and changed its name to WESCAST. They were bought by the Chinese in 2013 but the company headquarters is still in Canada. Supported by European and Asian sales and design centres, the Canadian technical and development centre controls global sales and design activities.

The factors that supported the plans to open a new location in Hungary were the good road network (proximity of motorway M1), the availability of skilled workforce and the state funding designed to help start foreign businesses. Wescast has received a number of state and EU grants from the following programmes:

- Grant earmarked for economic development → investment in machinery
- Economic competitiveness operative programme → investment in machinery
- Economic development operative programme → investment in machinery + job creation
- National employment fund → job creation

**Supplier requirements**

Wescast manufactures exhaust manifolds, turbocharger housings and catalytic converter housings for a wide variety of engines primarily for European car manufacturers and their direct suppliers. Their new product is the integrated turbo housing combines the cast exhaust manifold and the turbocharger housing in one piece. Their number one customer is BorgWarner Turbo Systems Alkatrészgyártó Kft. also operating in Oroszlány where the turbochargers are fitted in the housings manufactured by Wescast. The parent company of BorgWarner Turbo Systems is one of the world's 4 largest businesses manufacturing turbochargers. Wescast Hungary Autóipari Zrt. supplies the following main customers with its products:

- Audi Hungaria Motor Kft., Opel, Renault, Ford, PSA Peugeot Citroën: exhaust manifolds
- Honeywell, BorgWarner, Mitsubishi, Continental, Bosch-Mahle: turbocharger housings and integrated exhaust manifolds.

The company's products are also found in Land Rover, BMW, Jaguar and Honda cars.

The have learnt OEM requirements from their contracts, their annexes and the quality control manuals. Compliance with the OEM quality control system, continuous development, cost efficiency and competitive prices are among their basic requirements. The company is ISO 9001, ISO 14001, and ISO /TS 16949 certified. In addition, they have secured Ford's Q1 certificate.

Representatives of their customers

- upon the introduction of new products perform PPAP[24] and Run @ Rate[25] control
for mass production projects they normally hold an annual supplier audit and evaluate the results.

Demand is growing for the company's products. They have acquired new customers and have successfully experimented with new materials, various ferro-metallic alloys, stainless steels and steel alloys that resist heat up to 1,100 °C. Increased heat resistance is a trend. Under normal circumstances they introduce 2–3 new products each year. In 2013 alone, while increasing production volumes, Wescast launched the manufacturing of 7 new products in 40–50 technical versions. The company is planning to launch an additional 14 (!) new products in 2014.

There is an exponentially growing demand for turbocharger housings, a product category becoming more significant in their portfolio. This is due to the effort by car manufacturers to increase the engine's operating efficiency, comply with stricter emission standards and lower fuel consumption. Wescast's products meet the needs for "more power with smaller size and weight for less money".

**The business operating environment**

The company is satisfied with the environmental conditions although they look forward to the bypass road included among the mayor's plans for the future.

The Hungarian company has its own foundry and machining factories. Iron ore is melted in 4 units of 12.5 t capacity and 2 units of 3 t capacity induction furnaces. The products are made by machine driven sandblasting and automated casting lines. The company uses the currently available top tolerance levels in casting turbocharger housing and applying sandblasting. The machining factory uses 105 expensive CNC-controlled cutting equipment (power lathes, machining centre). They also use auxiliary, so-called "end-of-line" machines (washer, welder, assembly, etc.). The tendency is automation and robotics in trimming.

Wescast has recently opened a new hall. They are planning another extension of the factory floor by about 3,000 m² to increase their cutting capacity. This will mean 19 additional CNC controlled cutting equipment and a minimum of 200 new jobs (own and temporary combined). In order for Hungary to become an automotive manufacturing hub of Europe, the number of people involved in industrial and technical training and the quality of such training programmes must be increased. In terms of higher education and vocational training "Sabbatical" should be introduced for educators. The measures taken by the current government are designed to achieve these goals.

The company uses 8 buses to transport employees from the neighbouring settlements. They are increasingly less satisfied with the quality of the workforce. They have hired people that were turned down elsewhere (contra-selection). Fluctuation is a huge problem for them because finding and retaining quality professionals is difficult. Young people who in the region traditionally worked as coal miners and were thus used to hard physical work now study and do not want to come back after completing their college studies. Oroszlány has no institute of higher education. Wescast hires a lot of new employees into production but they always hire for support areas: project managers, engineers, technicians, quality assurance and safety specialists, etc. They pay attention to purchasing services and products from local suppliers, if possible.

The company is a member of the Hungarian Foundry Association.
Experience and proposals to potential Canadian automotive investors

- The automotive industry is on the rise.
- Hungary is an especially good target for foreign investors.
- Labour cost is lower than in Canada.
- When looking for a suitable location, the factors for consideration include a cooperative mayor, readily available workforce and manageable competition for workforce.
- With "brownfield" investment projects, the mentality of the available workforce is an issue as changes are slower and require a lot of efforts to complete while many foreigners believe that Hungarian tend to complain a lot.
- With "greenfield" investment projects, the issue is transferring the multinational culture to mid-level management. This is why the selection of the initial team is of great importance.
- Opportunities and potential competitors must be carefully assessed in any possible region (location). Even smaller investors are encouraged to contract consulting firms working primarily on the basis of their personal networking. Large investors are better off with large international consulting firms.
- Scarcity, market niche: lack of **automotive industry quality** raw materials. Few companies produce foundry iron and steel raw materials.
- Scarcity: certain heavy industry professions and qualifications
- It is recommended to bring automotive research and development activities to Hungary.


[3] Portfolio.hu, 15 March 2014 – "Sorban állnak a vevők az év autójáért" (Huge customer demand for the Car of the Year)

[4] Index.hu, 15 February 2014 – "Menő a luxus a világ útjain" (Luxury is cool on the world’s road network)

[5] Autopro.hu, 19 February 2014 – "Januári sikerek a német prémium szegmensben" (Successful January in the German Premium Segment)

[6] Origo.hu, 17 August 2012 – "Hogy lehet német egy japán autó?" (How is it possible that a Japanese car is actually German?)

[7] Gyártástrend, 17 December 2012 – "Újabb üzembezárások az autóiparban" (New car factories to shut down)

[8] State Secretary in Charge of Foreign and External Economic Affairs of the Prime Minister's Office, 5 February 2014 – stated at the first motor vehicle industry summit of the Hungarian Investment and Trade Agency.
[9] Suppliers


[11] Világgazdaság, 16 April 2013 – A Mercedes történetét írt" (Mercedes writes history)

[12] Autopro.hu, 4 December 2013 – "Minden 100 euróból hármat Magyarországon költ el a BMW" (BMW spends 3 out of 100 euros in Hungary)

[13] Audi (link in Hungarian)

[14] Just-In-Time: at the time when needed

[15] Just-In-Sequence: in the assembly order

[16] PPAP: Production Part Approval Process


[19] www.cegalapitas.net/kulfoldieck_cegalapitasa_Magyarorszagon.html (link in Hungarian)

[20] Piac & Profit, 11 March 2014 – "Erre lesz pénz ebben a pályázati ciklusban" (This is where money will be available in this tendering cycle.

[21] Piac & Profit, 4 February 2014 – "Uniós források" (EU funds)

[22] Figyelő, Issue 5, 30 January 2014 – "Hatból öt német cég tervez beruházást" (Five out of six German companies plan to invest)

[23] CVT – Continuously Variable Transmission

[24] PPAP: Production Part Approval Process

[25] Run @ Rate: a rating of supplier production capacities. The supplier must be able to produce the required quantity in the appropriate quality using the equipment available.

[26] Autopro, 5 December 2013 – "Magyar szakember a Wescast európai vezérigazgatója" (A Hungarian professional is Wescast's European CEO)

[27] Sabbatical: a year of rest after a few years' of work, a holiday for creative work and research.