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**BULLETIN**

# **SWEDEN'S INNOVATION POWERHOUSE: AUTOMOTIVE INDUSTRY – PRACTICAL ASPECTS AND TRENDS**

## **In this bulletin you will find:**

Summary of the interview with Automotive Industry expert and entrepreneur Rolandas Rimdeika:

- Tips on entering the automotive market in Sweden
- A list of useful information and companies in Sweden
- Future trends in the automotive industry
- The 6P strategy for sustainability

# INTRODUCTION

This bulletin aims to highlight the Swedish innovation landscape, with a special focus on the engineering sector, particularly Sweden's prominent automotive industry. We hope this bulletin will shed more light on practical ways Lithuanian companies can enter the Swedish automotive market and establish fruitful business relationships.

For this info-bulletin, LPS Board Member Agne Baronaite has interviewed an expert of the automotive industry Rolandas Rimdeika, who has shared his valuable insights and experiences regarding the challenges and opportunities in the automotive sector in Sweden.

Rolandas has an extensive experience in automotive engineering and electromobility in Sweden. His years in the field have given him a solid grasp of the technical side of things including insider experience in working at and collaborating with major industry players.

making him well-versed in the technical aspects of the industry. Additionally, he has a strong passion for innovative sustainable technologies, further highlighting his commitment to driving positive change within the automotive field.

Rolandas Rimdeika embarked on his journey to Sweden after spending several years in detecting electronic faults and other troubleshooting issues in the automotive industry. He started private company in Sweden to focus on advanced diagnostics and troubleshooting of the vehicles. The company also develops monitoring and climate control kits for new cars, which includes developing necessary software packages. Rolandas' company specifically focuses on working with vehicles that have experienced multiple returns to service centers, providing assistance in identifying and resolving advanced problems.

In addition to diagnostics, Rolandas' company offers methodological education sessions for the staff at car service centers. These sessions typically span 1 or 2 days and aim to equip technicians with the knowledge and skills needed to prevent and quickly diagnose defects and issues when cars are brought in for servicing. The company operates under the name "Rimdeika Consulting and Coaching AB." After working with his company for five years, Rolandas Rimdeika made a strategic decision to transition it into a consulting and engineering firm. This marked the beginning of his journey to enter the Swedish engineering sector. Initially, the company took small but significant steps forward and successfully secured contracts with prominent Swedish brands such as Volvo Cars, Volvo Penta, Volvo Trucks, Volvo Buses, Global Trucks Technology, Lynk & Co and Others.



# HOW TO ENTER THE AUTOMOTIVE MARKET IN SWEDEN?

Becoming a supplier to big companies in the engineering sector involves several steps and requirements. Let's summarise them:

1. **Quality and Meeting Requirements:** To be considered as a supplier, it is essential to have high-quality products or services that meet the specific requirements of the company you wish to work with.
2. **Consulting and Supplier Niche:** One approach is to become a supplier through consulting services. By signing contracts as a consultant, you can establish relationships and build networks within the target companies.
3. **Utilising Consultancy Work for Flexibility:** Working as a consultant offers more flexibility in obtaining contracts as it allows you to work with multiple clients without being limited to one organisation.
4. **Language Requirements:** English is widely used in engineering and automotive industries, including communication within Swedish companies where English is often promoted as the main office language.
5. **Individual Representation:** Swedish companies tend to focus on individual performance when evaluating potential suppliers, so it's crucial for individuals representing your company to demonstrate their capabilities effectively.
6. **Lengthy Contract Signing Process:** The process of signing contracts with big companies can be lengthy, typically taking around 1.5 years. This is because decisions regarding new contracts are made by councils within large organisations, rather than individual employees.
7. **Board Approval:** In order to secure contracts, you need to gain approval from the council members who make the final decisions. This may involve presenting your ideas and demonstrating their value.

8. **Clear Plan:** It is important to create a clear plan outlining how your offerings align with the goals and needs of the target company. This plan will help you navigate the complex decision-making process.

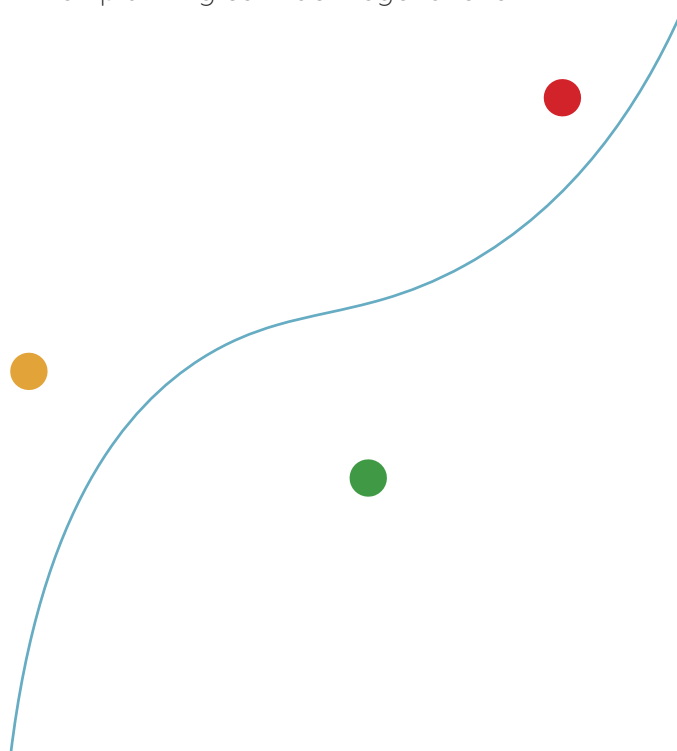
9. **Building Contacts:** Networking plays a crucial role in gaining visibility within big companies. By making contacts and suggesting your ideas, you increase your chances of being considered as a supplier.

10. **Outsourcing Alternatives:** Some large corporations prefer working with a few key suppliers rather than maintaining extensive lists of suppliers. They may outsource certain work packages or projects to external companies while having one main supplier overseeing the project.

11. **Criteria Frameworks:** There are specific frameworks in place that outline the criteria for becoming a supplier. Main suppliers set requirements for their subcontractors, ensuring that they meet certain standards.

12. **Building Experience and References:** Gaining experience in aftermarket services can help you establish credibility and gain references and recommendations from satisfied clients.

13. **Timelines for Budgeting:** Companies typically set timelines for purchase budgeting, often confirmed in April or similar periods, which should be considered when planning contract negotiations.



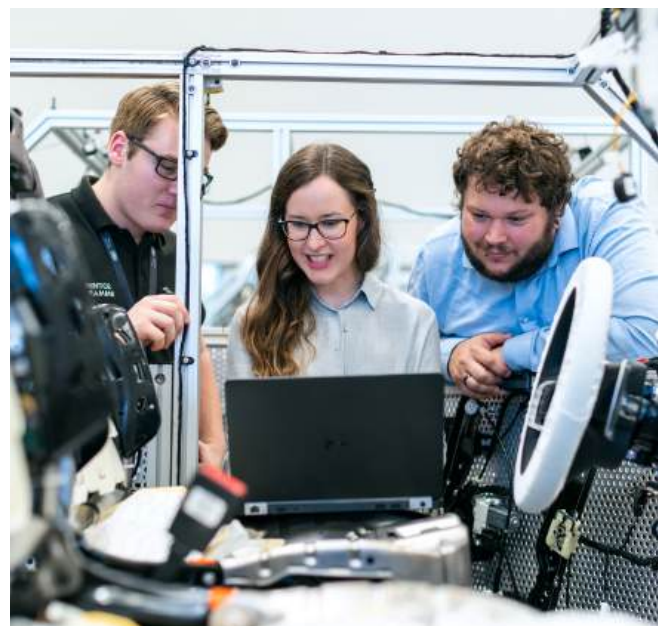
Some information and a list of companies that Rolandas found useful and where he could provide access to initiate collaborations with the major automotive companies like Volvo Group in Sweden, including short descriptions for each:

- **ALTEN Sweden:** Provides extensive engineering and IT services, specialising in embedded software, systems engineering, project management, and quality assurance. ALTEN supports automotive innovation in connectivity, automation, and electrification.
- **CEVT (China Euro Vehicle Technology):** Part of Geely, CEVT focuses on the development of future mobility solutions, offering advanced engineering and technology services to automotive manufacturers, including collaboration with Volvo Cars.
- **Infotiv:** Delivers technical consulting services, including system development, project management, and training. Infotiv supports various aspects of automotive engineering and technology development.
- **NSC Sweden:** Specialises in providing consulting services in the automotive sector, focusing on system development, testing, and project management. They have a strong track record with major OEMs in Sweden.
- **Condesign:** Offers a wide range of technical documentation and engineering services, including product development and project management. Condesign is known for its collaboration with leading automotive companies.
- **Lernia:** Provides training and educational services, focusing on skill development for the automotive industry. Lernia helps prepare the workforce for evolving automotive technologies and manufacturing processes.
- **Semcon:** An international technology company that provides engineering services, focusing on product development and IT solutions. Semcon works closely with automotive manufacturers like Volvo Group on various projects.
- **Randstad:** A global HR services provider, Randstad offers staffing and recruitment solutions specifically tailored for the automotive industry, helping companies find skilled professionals for their projects.
- **Netgroup Engineering:** Provides comprehensive engineering solutions, focusing on innovative automotive projects including electric and autonomous vehicles. Netgroup Engineering has a strong partnership with Volvo for developing cutting-edge technologies.
- **C-PAC:** Specialises in product development and project management services for the automotive industry. C-PAC is known for its innovative solutions and collaboration with major automotive OEMs in Sweden.
- **Sigma:** Offers a range of IT and engineering services, including software development, system integration, and consultancy. Sigma supports the automotive sector by providing solutions that enhance efficiency.

These companies provide various services that can help entrepreneurs connect with and supply to major automotive firms like Volvo Group in Sweden, offering opportunities in engineering, IT, training, and consultancy:

<https://www.volvogroup.com/en/suppliers/useful-links-and-documents/corporate-standards.html>

<https://www.volvogroup.com/en/suppliers/purchasing-by-volvo-group.html>





# THE AUTOMOTIVE INDUSTRY FUTURE TRENDS

The automotive industry is constantly evolving, and there are several future trends that we can see now and expect to evolve further. Here are some of the key trends in the automotive industry:

**Electric Vehicles (EVs):** One of the biggest trends in the automotive industry is the shift towards electric vehicles. With advancements in battery technology and a focus on reducing carbon emissions, many automakers are investing heavily in EV development. This trend is expected to continue as governments around the world implement stricter emission regulations and consumers become more environmentally conscious.

**Autonomous Vehicles:** Another significant trend is the development and adoption of autonomous vehicles or self-driving cars. Companies like Tesla, Google's Waymo, and traditional automakers are investing in autonomous driving technology to improve safety, increase efficiency, and provide convenience to consumers. While fully autonomous vehicles may still be a few years away from widespread adoption, semi-autonomous features such as advanced driver-assistance systems (ADAS) are already becoming common.

**Connected Cars:** The integration of internet connectivity into vehicles is transforming them into "connected cars." These cars can communicate with other vehicles, infrastructure, and external devices. Connected cars enable features such as real-time navigation updates, remote vehicle control, predictive maintenance, and enhanced safety through vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communication.

**Shared Mobility:** The rise of ride-sharing services like Uber and Lyft has led to increased interest in shared mobility solutions. Many people now prefer using these services instead of owning a car outright. This trend has prompted automakers to explore new business models focused on providing mobility-as-a-service (MaaS), where users can access vehicles on-demand through subscription-based services or app-based platforms.

**Sustainability and Green Initiatives:** Environmental concerns have been driving the automotive industry towards sustainability initiatives. Automakers are focusing on reducing greenhouse gas emissions by adopting eco-friendly manufacturing processes, using recycled materials, and exploring alternative fuels like hydrogen fuel cells.



**Advanced Safety Features:** Safety remains a top priority for both consumers and automakers. Advanced safety features such as collision avoidance systems, lane departure warnings, adaptive cruise control, and automatic emergency braking are becoming standard in many vehicles. Additionally, technologies like vehicle-to-everything (V2X) communication aim to enhance road safety by enabling cars to communicate with their surroundings.

**Augmented Reality (AR) in Automotive Design:** Augmented reality is being integrated into automotive design processes to improve efficiency and reduce costs during product development stages. AR allows designers and engineers to visualize virtual prototypes overlaid on physical objects, enabling faster iterations and better collaboration.

In addition to all above well-known trends, Rolandas adds these related to:

**Batteries:** The development of advanced battery technologies is a crucial trend in the automotive industry. With a focus on electric vehicles (EVs), automakers are investing heavily in improving battery efficiency, capacity, and charging infrastructure. This enables longer driving ranges and faster charging times for EVs.

**Software:** Software plays an increasingly important role in modern vehicles. From managing vehicle systems to enabling advanced features like autonomous driving and connectivity, automakers are investing in software development. This trend includes over-the-air updates to ensure that vehicles stay up-to-date with the latest features and security patches.

**Cybersecurity:** As vehicles become more connected and rely on software systems, ensuring their cybersecurity is paramount. The automotive industry faces challenges related to protecting vehicle data from cyber threats such as hacking or unauthorised access. Automakers are implementing robust security measures to safeguard vehicle systems and user information.

**Data Connectivity:** Connected cars generate vast amounts of data that can be utilised for various purposes such as improving vehicle performance, enhancing driver safety, and providing personalised services. The automotive industry is focusing on utilising this data effectively while addressing privacy concerns and ensuring secure data transmission.

**EU Requirements:** The European Union regularly updates its requirements for manufacturers to enter the market with new engines and vehicles. These requirements cover areas such as emissions standards, safety regulations, energy efficiency targets, and sustainability initiatives. Automakers must stay updated with these evolving regulations to comply with EU standards.

**Engineer Requalification:** Due to changing regulations and emerging technologies, engineers in the automotive industry need to continually requalify themselves in new fields. They must acquire knowledge and skills related to electric propulsion systems, software development, cybersecurity protocols, connectivity solutions, and compliance with country-specific requirements.

**Integration with Existing Systems:** With new technologies being introduced into vehicles, integration with existing systems becomes crucial for seamless operation and compatibility. Engineers need to ensure that new components or features seamlessly integrate with existing vehicle platforms while maintaining reliability and performance.

**Country-Specific Requirements:** Automotive regulations can vary between countries within the EU region due to local laws or preferences. Automakers must navigate these country-specific requirements when developing new engines or vehicles for different markets within the EU.



To what extent the circular economy is important in Swedish car production and use? To avoid data leakage and meet battery recycling requirements, companies must ensure proper recycling practices. By 2028, it is expected that 50% of materials used in production should be reused, driving the need for new manufacturing processes and embracing the concept of the circular economy. Remanufacturing also poses additional demands on companies. Let's explore these concepts further:

**Proper Recycling:** With the increasing use of electronic systems and data connectivity in vehicles, ensuring proper recycling is essential to prevent data leakage and environmental harm. Companies must adhere to regulations regarding the disposal and recycling of vehicle components, including batteries, to minimise their environmental impact.

**Battery Recycling:** As electric vehicles become more prevalent, proper battery recycling is crucial. Electric vehicle batteries contain valuable materials that can be recovered and reused. Companies need to implement effective battery recycling processes to extract these precious resources while minimising waste and environmental pollution.

**Reusing Materials:** The concept of reusing materials plays a significant role in achieving sustainability goals within the automotive industry. By reusing materials from end-of-life vehicles or other sources, companies can reduce waste and decrease their reliance on newly extracted resources.

**New Manufacturing Processes:** To meet the goal of reusing 50% of materials by 2028, companies need to develop new manufacturing processes that prioritise material reuse. This may involve redesigning products for easier disassembly and incorporating recycled materials into new vehicle production.

**Circular Economy:** The circular economy is an emerging trend in the automotive industry that aims to minimise waste and maximize resource efficiency throughout a product's life cycle. It involves designing products for durability, repairability, and recyclability while promoting strategies such as remanufacturing, refurbishing, and repurposing.





Companies should pay attention to 6R: Rethink, Refuse, Reduce, Reuse, Recycle, Repair:

- **Rethink:** Companies are encouraged to rethink their design and manufacturing processes with a focus on sustainability and resource efficiency.
- **Refuse:** Avoiding unnecessary waste by refusing excessive packaging or non-essential components.
- **Reduce:** Minimising resource consumption through efficient design practices that reduce material usage.
- **Reuse:** Extending product life cycles by promoting reuse through refurbishment or repurposing.
- **Recycle:** Implementing effective recycling programs to recover valuable materials from end-of-life vehicles or components.
- **Repair:** Encouraging repairs instead of replacing entire components whenever possible to prolong product lifespan.

By embracing these principles of the 6R framework (Rethink, Refuse, Reduce, Reuse, Recycle, Repair), companies can contribute to a more sustainable automotive industry where products have longer life cycles and waste generation is minimised.

Overall, adopting proper recycling practices along with focusing on material reuse in production processes aligns with circular economy principles and contributes towards building a more sustainable future for the automotive industry.

These are just a few of the future trends shaping the automotive industry. It's an exciting time for innovation in this field as technology continues to advance rapidly.





## THANK YOU!

We would like to express our profound appreciation to Rolandas Rimdeika for his invaluable contribution to this informational bulletin. His extensive knowledge and insights into the automotive industry in Sweden have significantly enhanced the quality and depth of our content.

Rolandas Rimdeika is an experienced entrepreneur and expert in automotive engineering and electromobility. He founded Rimdeika Consulting and Coaching AB in Sweden, focusing on advanced diagnostics, troubleshooting, and the development of innovative monitoring and climate control kits for new vehicles. His company also provides educational sessions for car service center staff and has successfully collaborated with prominent Swedish brands such as Volvo Cars, Volvo Penta, Volvo Trucks, Volvo Buses, Global Trucks Technology, and Lynk & Co.



Rolandas Rimdeika

We extend our sincere gratitude to LPS Board Member Agne Baronaite for interviewing Rolandas Rimdeika and summarising useful information represented in this info-bulletin issue!

Agne has been living in Stockholm for nearly five years and has gained valuable experience working with major Swedish banks for almost 12 years. Her understanding of Swedish culture is influenced by both her personal and professional experiences. Agne is a natural networker who skilfully leverages her personal and professional insights to navigate and embrace various cultural dynamics effectively.



Agne Baronaite

## TO BE CONTINUED...

This is the seventh information bulletin that Lithuanian Professionals in Stockholm Club has issued. The series of bulletins aim to provide local knowledge on various topics that are important for Lithuanian businesses aiming to expand or start in Sweden.

In preparing bulletins we utilize our network and professional contacts that own specific knowledge so that bulletins are comprehensive, competent, and useful for Lithuanian businesses.

## LITHUANIAN PROFESSIONALS IN STOCKHOLM

We are a non-profit organisation which unites Lithuanian professionals in Sweden to support each other's professional growth, promote Lithuania, and enjoy joint activities.

Our Strategic Directions are:

1. Lithuanian business enablement in Sweden
2. Better visibility and image of Lithuania in Sweden
3. Networking, fun, high professionalism and knowledge of our members.

<https://lpsclub.se>

[info@lpsclub.se](mailto:info@lpsclub.se)



## FUNDING AND PARTNERS

We also wish to thank the Ministry of the Economy and Innovation of the Republic of Lithuania for supporting production of this informational bulletin.

<https://eimin.lrv.lt/en/>



We thank our partners for consultations and dissemination of the bulletins:

Innovation Agency in Lithuania

<https://inovacijuaagentura.lt/>

Swedish Chamber of Commerce in Lithuania

<https://swedish.lt/>

Vilnius Chamber of Commerce, Industry and Crafts

<https://www.cci.lt/>

Kaunas Chamber of Commerce, Industry and Crafts

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Embassy of the Republic of Lithuania in Sweden

<https://se.mfa.lt/>

Prepared by LPS Club, 2024

Designed by Asta Labzentyte