Perspectives of Serbian Automotive Suppliers in the Electric Vehicle Global Value Chain
-Insights from Industry Interviews-

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The main objective

- Examine the prospects for integrating Serbian automotive suppliers into the EV GVC based on the insights from six semi sctructured interviews.

Presentation outline

- Overview of the EV global value chain;
- A snapshot of the Serbian automotive industry;
- Key insights from interviews;
- A summary of takeaways and policy recommendations

The EV Global Value Chain (GVC)

Includes raw materials, battery cell manufacturing, power electronics, vehicle assembly, and aftersales services.

Key actors span mining, chemicals, software, and logistics.

Driven by battery technology, software integration, and sustainability standards

Changing Role of Automotive Suppliers

25% of traditional supplier roles may become obsolete.

Demand is rising for new systems like batery modules, power electronics, lightweight materials

New capabilities, closer cooperation with OEMs and strategic investments are required

EV Battery Value Chain: Strategic Leverage

Battery is 50% of EV value; critical tech challenges: density, safety, cost

Asia leads in battery production; Europe seeks foothold

Brazil case: potential GVC entry via lithium mining and processing.

Relevance for Serbia

Stellantis and tier suppliers in Serbia provide strong manufacturing base.

EV transition is a catch-up opportunity but requires swift action.

Local interviews provide direct insight into readiness and obstacles.

Overview of Serbia's Automotive Industry

General Structure: 1 OEM (Stellantis), over 70 Tier 1 and Tier 2 suppliers (Bosch, ZF, Continental, Leoni, Brose, Yura, Cooper Standard, Adient, Lear, Vorwerk,), Serbian Automotive Cluster

Turnover and Employment: Total sector revenue (2022) of over €3.6 billion, over €2.4 billion in exports, 70,000 workers

Export Markets: Germany, Italy, France, Poland, and other Central and Western European countries.

Overview of Interviews Conducted

- **Two leading supplier companies:** Vorwerk and Yanfeng, both among the most significant players in the Serbian automotive industry;
- **Local economic development offices** of the cities of **Kragujevac and Čačak**, which host the highest concentration of automotive suppliers in the country;
- The **Automotive Cluster of Serbia**, serving as a central coordinating body and industry voice;
- The **Regional Chamber of Commerce of the Raška and Moravica districts**, representing a broad range of businesses across this strategically important industrial region.

How Is the Serbian Automotive Industry Reacting?

Yanfeng	**Limited impact from EV transition; focus remains on cost optimization. No significant change in supplier structure or labor strategy. No government or EU incentives used.**
Vorverk	**Positive impact from EV shift; production already EV-oriented. Automation adopted for cost reasons. Active in developing parts for Chinese firms. Received government incentives.**
Serbian Automotive Cluster	**Suppliers technologically ready; production lines adaptable. Challenges include infrastructure and uncertain investment climate. Serbia has potential for battery value chain development**
Regional Chamber	**Limited local decision-making due to foreign ownership. Emphasis on need for better incentives and infrastructure. Lithium potential could attract investment if coupled with component production.**
LSG Kragujevac	**Strong local activity with 400+ businesses. Fiat's EV exports have begun. Two industrial models co-exist: Western European and Chinese companies. City provides financial and logistical support**
LSG Cacak	**Serbian companies face limited competitiveness and market access. Startups may drive EV innovation more than legacy firms. Local government lacks EV-specific support**

Serbia's strengths in the EV GVC

- **Start of EV production by Stellantis** in Kragujevac positions Serbia as a regional EV manufacturing hub.
- **Strong base of automotive suppliers**, especially in Moravica, Raška, and Šumadija districts.
- **Skilled industrial workforce** with competitive labor costs.
- **Strategic geographic location** near EU markets and transport corridors.
- **Potential in raw materials** (e.g., lithium deposits in the Jadar region).
- **Emerging digital and R&D capabilities**, particularly in software and automation.

Serbia's barriers in the EV GVC

- **Insufficient government support** for innovation and investment in the EV and battery sector
- Lack of **charging infrastructure**
- Absence of **national strategy**
- Limited **reskilling programs**.

Summary: Key Points

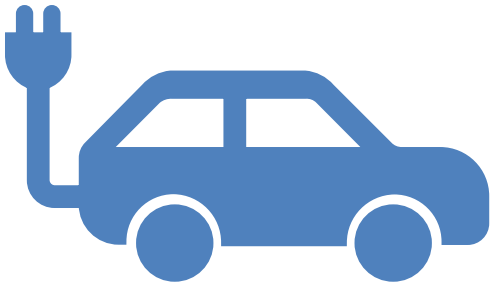
✅ Serbian automotive suppliers show readiness, but execution lags.

🔋 Battery value chain: potential exists, but environmental and strategic gaps remain.

🌍 Foreign investment interest is high, especially from China and the EU.

👷 Workforce needs targeted upskilling and dual education programs.

🏭 Infrastructure and local supply chain integration are critical next steps.



Policy Recommendations

1) Develop a national strategy for EV supply chain integration, including battery production.
2) Invest in public EV infrastructure (charging stations) in industrial and urban zones.
3) Create targeted innovation and reskilling funds for EV component manufacturers.
4) Facilitate collaboration between local suppliers and multinational investors.
5) Encourage transparency and stakeholder engagement in lithium-related projects.

Thank you for your attention!