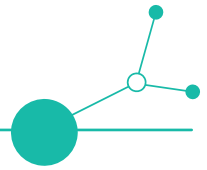


TRANSFORMATION READINESS MODEL

Annex 2 Competitive advantage
factors for automotive regions



Version 1

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Annex 2: Competitive advantage factors for automotive regions

Critical factors for a region to be in the game of electric, autonomous, connected vehicles

- Government Policies and Incentives
 - Financial Incentives: Offering subsidies, grants, tax breaks, or low-interest loans to attract investments in EV component manufacturing.
 - Regulatory Support: Implementing policies that promote EV adoption, such as emission standards, vehicle electrification targets, and infrastructure development.
- Infrastructure and Supply Chain
 - Industrial Zones: Developing dedicated industrial parks or zones with infrastructure tailored for EV component manufacturing.
 - Logistics and Transportation: Ensuring efficient transportation networks and logistics infrastructure for raw materials and finished goods.
 - Energy Infrastructure: Reliable and affordable energy supply, particularly renewable energy sources for sustainable manufacturing processes.
- Access to Raw Materials
 - Proximity to Raw Material Sources: Availability of essential raw materials such as lithium, cobalt, nickel, and rare earth metals used in battery manufacturing.
 - Supply Chain Integration: Strong logistics infrastructure and supply chain networks to facilitate timely and cost-effective procurement of raw materials.
- Skilled Workforce and Education
 - Technical Expertise: Availability of skilled labour with expertise in battery technology, electric powertrains, electronics, and automotive manufacturing. Availability of a skilled workforce with expertise in electronics, telecommunications, software engineering, and automotive technology.
 - Education and Training Programs: Proximity to educational institutions offering specialized programs in EV technology and manufacturing processes. Presence of universities and technical schools offering specialized programs in IoT, connected vehicle technology, cybersecurity, and data analytics.
 - Technical Education: Collaborating with educational institutions to develop programs focused on EV technology, battery manufacturing, and related skills.
 - Workforce Training: Providing training programs to upskill or reskill the workforce in advanced manufacturing techniques and EV-specific technologies.
- Research and Innovation Ecosystem, technology hubs
 - Research Institutions: Presence of research institutions, universities, and technology parks conducting research in battery chemistry, materials science, and advanced manufacturing, IoT, vehicle-to-everything (V2X) communication, cybersecurity, and artificial intelligence (AI) for autonomous systems. Partnering with research institutions and universities conducting research in EV technology, battery materials, and advanced manufacturing processes.
 - Technology Transfer: Facilitating technology transfer from research institutions to industry for commercialization of innovative EV components.
 - Tech Ecosystem: Presence of a vibrant technology ecosystem with expertise in IoT, telecommunications, software development, and vehicle connectivity solutions.
- Proximity to OEMs and to markets
 - Access to OEMs: Being located near major EV manufacturers facilitates efficient supply chain management, reduces logistics costs, and fosters collaboration opportunities.
 - Market Size and Growth: Demonstrating a growing market for EVs with supportive consumer demand, infrastructure development, and government incentives.



- Strategic Location: Proximity to major EV markets or OEMs, facilitating access to customers and supply chain integration. Located in or near regions with high adoption rates of connected vehicle technologies and supportive regulatory environments.
- Supplier Ecosystem and Collaboration
 - Local Supplier Network: Building a robust network of local suppliers capable of supplying components and materials needed for EV manufacturing.
 - Cluster Development: Encouraging clustering of EV component suppliers and OEMs to foster collaboration, innovation, and economies of scale.
- Business Environment
 - Ease of Doing Business: Streamlined regulatory processes, transparent legal framework, and business-friendly policies for foreign and domestic investments.
 - Support Services: Access to business support services such as financial consulting, legal advice, and market intelligence tailored for EV component suppliers.
- Environmental Sustainability
 - Green Manufacturing Practices: Emphasizing sustainable manufacturing practices, including waste reduction, energy efficiency, and carbon footprint reduction.
 - Certifications and Standards: Meeting international environmental standards and certifications for manufacturing processes and products.
- Political Stability and Risk Mitigation
 - Political Stability: Providing a stable political environment that ensures continuity in policies and governance.
 - Risk Management: Mitigating investment risks related to geopolitical tensions, economic fluctuations, and regulatory changes.