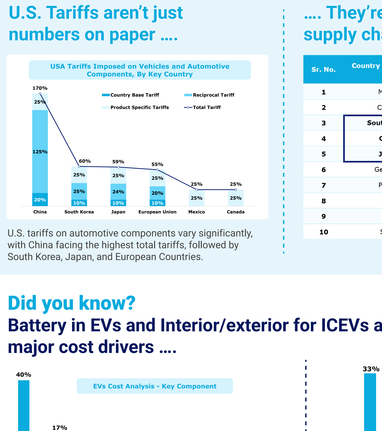
Ingenious Brain

What's Happening with **U.S. Automotive Supply Chain Localization** and Why It Matters in 2025?

The U.S. is at a tipping point, where localizing its automotive supply chain is no longer optional. With global tensions, reshoring initiatives, and evolving trade policies, it's crucial to take control of production & reduce reliance on overseas suppliers.

Global Automotive Component Sourcing at a Glance

The value of automotive components imported from various countries to the U.S. varies year-over-year ....

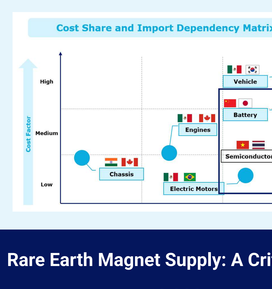


.... But WHY These FLUCTUATIONS?

Strong trade with Mexico & Canada due to regional proximity & integrated supply chains for ICE components.

Higher Reliance on Asia & Europe for specialized materials (batteries, semiconductors) for EVs.

U.S. Tariffs aren't just numbers on paper ....



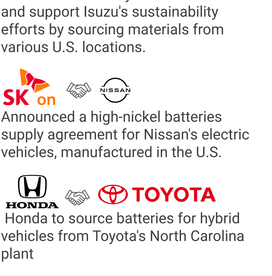
U.S. tariffs on automotive components vary significantly, with China facing the highest total tariffs, followed by South Korea, Japan, and European Countries.

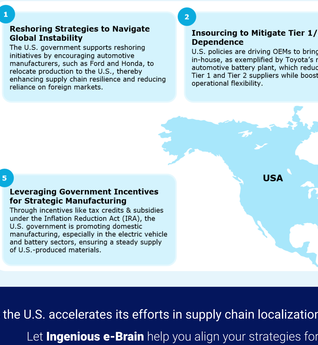
.... They're redefining your supply chain strategy

Sr. No.	Country Exporting to USA	Import Dependency	Scale of Import Tariffs
1	Mexico	Very High	Very Low
2	Canada	Very High	Very Low
3	**South Korea**	**High**	**High**
4	**China**	**High**	**Very High**
5	**Japan**	**Moderate**	**High**
6	Germany	Low	High
7	Poland	Very Low	High
8	UK	Very Low	High
9	Italy	Very Low	High
10	Spain	Very Low	High

Did you know?

Battery in EVs and Interior/exterior for ICEVs are the major cost drivers ....





.... But Despite Low Costs, Electric Motors and Semiconductors Are Essential to Operational Continuity

Rare Earth Magnet Supply: A Critical Pillar for U.S. EV Manufacturing

The U.S. consumed **~10,000 tonnes of Neodymium-Iron-Boron (NdFeB) magnets** last year across various sectors, including electric vehicle (EV) motors, yet China controls **90% of global production.** To reduce reliance on foreign sources and strengthen its EV market position, the U.S. must prioritize **localizing its rare earth magnet supply.**

Strategic Moves by Automotive Giants

TOYOTA
Launched an automotive battery plant in North Carolina to produce batteries for hybrid and electric vehicles

ISUZU & **REDWOOD MATERIALS**
Collaborated to recycle EV batteries and support Isuzu's sustainability efforts by sourcing materials from various U.S. locations.

LINAMAR
Investing over USD 1 billion to expand auto parts manufacturing in Ontario, Canada

SK on & **NISSAN**
Announced a high-nickel batteries supply agreement for Nissan's electric vehicles, manufactured in the U.S.

general motors
Aims to boost production of light-duty trucks at its Indiana plant

HONDA & **TOYOTA**
Honda to source batteries for hybrid vehicles from Toyota's North Carolina plant

How U.S. Policies Are Fueling Automotive Supply Chain Localization?

1 Reshoring Strategies to Navigate Global Instability
The U.S. government supports reshoring initiatives by encouraging automotive manufacturers, such as Ford and Honda, to relocate production to the U.S., thereby enhancing supply chain resilience and reducing reliance on foreign markets.

2 Insourcing to Mitigate Tier 1/2 Supplier Dependence
U.S. policies are driving OEMs to bring production in-house, as exemplified by Toyota's new automotive battery plant, which reduces reliance on Tier 1 and Tier 2 suppliers while boosting operational flexibility.

3 Embracing Technology and Automation
The U.S. incentivizes manufacturers to adopt advanced technologies like AI and robotics, such as Ford's investment in AI-driven manufacturing, improving efficiency in local production.

4 Focus on Alternative Materials with Strong Supply
U.S. efforts to foster partnerships with local suppliers and develop new materials such as solid-state and sodium-ion batteries are helping automakers reduce supply chain vulnerabilities and ensure domestic sourcing.

5 Leveraging Government Incentives for Strategic Manufacturing
Through incentives like tax credits & subsidies under the Inflation Reduction Act (IRA), the U.S. government is promoting domestic manufacturing, especially in the electric vehicle and battery sectors, ensuring a steady supply of U.S.-produced materials.

As the U.S. accelerates its efforts in supply chain localization, the opportunity to lead in innovation is now.

Let **Ingenious e-Brain** help you align your strategies for the future of automotive manufacturing.

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