Electric Mobility: Opportunities and Challenges in the Clean Fuel Industry

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Global electric vehicle sales forecast to expand 10-fold over the next two decades
Asia and Europe to drive electric vehicle market growth
Emerging markets to witness fastest electric vehicle market growth
Europe is forecast to have the largest market share of electric vehicles
Higher EV registrations in more affluent markets, but more affordable EVs appearing
Challenges of EV adoption
Opportunities: Various incentives and perks are offered to make the EV transition
Automakers are shifting their focus towards EV production
Case study: GM commits to USD27 billion investment in E-mobility
Case study: Volkswagen plans for 50% of its vehicles sales to be electric by 2030
Case study: Stellantis plans USD35.5 billion investment in electrification
China is the global leader in EV charging
Charging station numbers surge in part thanks to available subsidies and tax rebates
Opportunities can be found in markets with too few charging stations
Most charging occurs privately but public charging to show the largest growth potential
EV charging is a big business that caters to a broad range of industry specialists
EV charging industry is fostering new strategic partnerships and M&A
Case study: Carrefour partners with Meridiam to deliver EV charging at its hypermarkets
Case study: Motor Fuel Group to partner with Swarco in rolling out charging stations
Oil and gas companies and energy firms pushing ahead charging infrastructure roll-out
Case study: Shell to build half a million EV charging points by 2025
Case study: BP focuses on delivering rapid EV charging systems
Case study: Enel seeks ambitious target of 736,000 EV charging points by 2022
EV charging stations will require large electricity demand from sustainable sources
EV industry hampered by low profitability, but future prospects are high
Different chargers are suitable for different locations
Wireless charging can solve charging adaptor challenges
Case study: WiTricity working to develop wireless charging
Developing a successful strategy for companies in the EV charging business is vital
Summing up: Opportunities and challenges of the EV charging industry
Asian countries continue to dominate battery production
Price parity with internal combustion engine vehicles to be reached by 2025
As industry matures, manufacturers eye new technologies to reduce prices
Case study: Tesla promises “tableless” battery design
Case study: Volkswagen and QuantumScapae rush to develop solid-state battery
Case study: CATL develops sodium-ion battery
Europe to offer new growth opportunities for battery producers and suppliers
European Battery Alliance aims to catch up with Asian battery manufacturers
OEM manufacturers aim for in-house battery production
Battery production to support metals, chemicals and hi-tech good industries
Securing stable supply of metals remains an issue
Concerns over ethical mining and sustainability increase
Case study: Volvo to use blockchain technology to track metal origins
Battery production localisation is needed to reduce environmental impact
Battery recycling could create new value for economies
Case study: Volkswagen battery recycling plant
Case study: Volkswagen changes selling model to secure old battery supply
Summing up: Opportunities and challenges for the battery industry
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