

Connected (e)Mobility

Company Core Technology

Background

An existential transformation is underway in an industry more than 100 years old – transportation and mobility. The way we move people and goods is radically changing due to the disruptive impact of autonomous systems, connectivity, electrification and sharing economies. These trends are generating advanced technologies, shifting markets and revenue pools, creating new stakeholder ecosystems and changing our mobility behavior.

Autonomy:

Startups, IT and technology companies and new market entrants are racing to develop autonomous vehicles and transport systems to leverage increasing public support and regulation of mobility solutions aimed at increasing safety, universal access and utilization of transportation assets.

Connectivity:

An ever-growing communication network – further enabled with upcoming 5G technology and ubiquitous smart device penetration has expanded automotive revenue pools by more than 30%, - reaching \$1.5 trillion according to reports by McKinsey.

Electrification:

In the last decade, battery performance has increased while cost levels have dropped leading to an inflection point of mass adoption in electric vehicles. This has been further supported by mandatory EV production quotas and city specific bans on combustion engine and diesel vehicles. A resulting demand for essential charging infrastructure and energy-demand management follows closely behind.

Sharing:

Mobility behavior globally is showing signs of favoring easy access over ownership – further enabled by digital solutions – most notably by new startup entrants like Uber and China's DiDi.

It is estimated that by 2050, 70% of the world's population will live in cities. As a result, ever-greater pressure is building to provide efficient mobility solutions that help people primarily in urban areas fulfill their expectations for a modern and quality lifestyle.

Importance for Siemens

To meet this demand, Siemens provides integrated, sustainable transportation solutions that optimize existing infrastructures – not just with high tech hardware but also with smart management systems such as Connected (e)Mobility.

Connected (e)Mobility provides a new arena for growth at Siemens and for some of our important customers including utilities, transportation OEMs, transport operators and cities. Siemens aims to deliver core and next-generation technologies as well as innovative business models to deliver customer impact in eMobility and develop innovative Connected Mobility business models to link electrified assets and digital mobility technologies and services. These two markets converge within cities. Siemens is well positioned here.

Success stories and research focus

The right charging technology utilizes the full advantages of eVehicles: lower energy consumption than buses with combustion engines, use of renewable energy, less noise, lower particle emissions, reduced CO₂ emissions, lower lifecycle costs, and reliable service.

Siemens is developing a full range of fully automated and interoperable low AC and 50-300 KW DC charging solutions that are tailored to the specific requirements of owners and operators. The company can deliver consulting, charging solution design, implementation and service. On top of that, with innovative business models and digital offerings, Siemens can better understand, monitor in real-time and predict asset performance to optimize the operations of a network of electric fleet vehicles.

Connectivity is the key to keeping passengers safe and comfortable. Siemens offers the most innovative communication solutions that enable access to travel information, and coordinate intermodal transportation services. This ensures considerably safer, more convenient, and seamless journeys thanks to comprehensive information and assistance for passengers, drivers and fleet operators.

Further information

[siemens.com/innovationday](https://www.siemens.com/innovationday)
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