

Transition-opportunity sector profiles

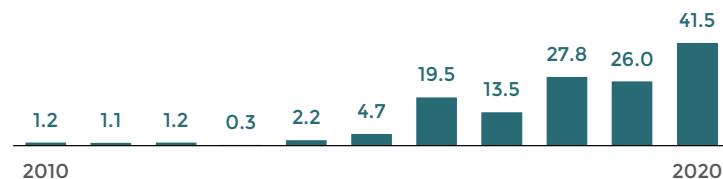
LOW-CARBON TRANSPORTATION

Low-carbon transport includes technologies and services aimed at reducing emissions from road, rail, air, and water-based transportation. It includes companies that design and manufacture electric cars, buses, trucks, airplanes, snowmobiles, and watercraft. It also includes companies with solutions for ridesharing, bikesharing, e-scooters, and those manufacturing or managing charging networks.

Global market (1,717 companies)

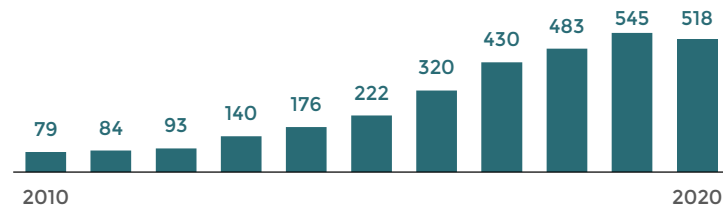
Capital invested (\$B)*

Total: \$139 billion



Deal count*

Six-fold increase between 2010 and 2020



Global low-carbon scenarios and trends

- In low-carbon scenarios, 90% to 100% of passenger vehicle sales are expected to be electric by 2050.¹
- Around 25-60% of all transportation demand would be electric or hydrogen by 2050.²
- The global electric vehicle market is expected to grow at a CAGR of 27% between 2021 and 2030.³

Global market dynamics

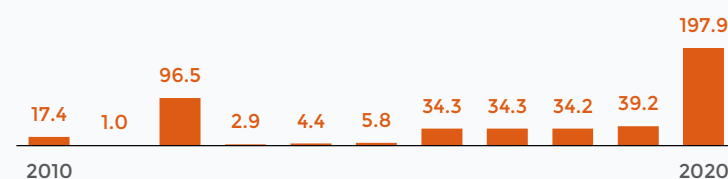
- The market caps of electric vehicle firms have grown rapidly, and several large auto manufacturers have announced a shift toward electric vehicle production.
- The electric passenger vehicle market is highly competitive.
- Other segments of low-carbon transportation, such as buses and recreational vehicles, have greater potential for new entrants.
- Electric vehicle demand is growing rapidly in China and Europe.⁷
- U.S. demand will grow with commitment to make 50% of passenger vehicle sales electric by 2030, and funding for electric school buses, but Buy American provisions could constrain some opportunities.⁸

*Source: PitchBook Data, Inc. (2021). Data is drawn from a custom search that has not been reviewed by PitchBook Analysts.

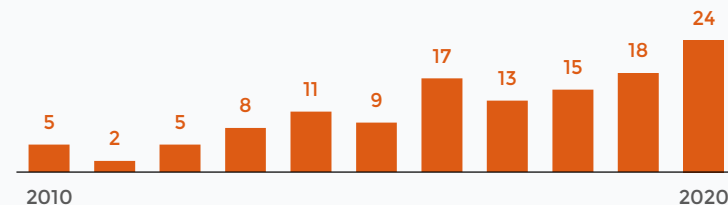
Canadian market (66 companies)

Capital invested (\$M)

Total: \$468 million



Five-fold increase between 2010 and 2020



Canadian net-zero scenarios and trends

- Electrification accounts for 50% of emission reductions in personal transport by 2050 across different net zero scenarios.⁴
- Bioenergy and hydrogen play a large role in medium and heavy-duty vehicles, whereas electricity is the main energy source for urban vehicles, such as buses and delivery vans.⁵
- Electric and hybrid vehicle registrations grew from around 1% of total vehicles to almost 5% between 2015 and 2019.⁶

Canadian competitiveness

Significant potential in electric buses, niche markets, and charging infrastructure.

+ Advantages

- Manufacturing expertise, low-carbon electricity, and supply chains.⁹
- Proximity to, and integration with, U.S. market.

✖ Disadvantages

- Export costs and infrastructure, weak domestic market.¹⁰

NOTABLE COMPANIES

Lion Electric: manufactures electric buses and trucks, \$500 million SPAC deal in 2021.

Taiga Motors: electric snowmobiles and watercraft, over \$70 million raised (Aug. 2021).

Disclaimer

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All dollar values included in this document are expressed in USD.

Endnotes

- 1 Planetrics. 2021. Climate Risk Model and Scenario Outputs. Drawn from work commissioned by the Canadian Institute for Climate Choices.
- 2 Network of Central Banks for Greening the Financial System. 2020. "NGFS Scenario Explorer." <https://data.ene.iiasa.ac.at/ngfs/>; IEA (International Energy Agency). 2021. Net Zero by 2050: A Roadmap for the Global Energy Sector. May. <https://www.iea.org/reports/net-zero-by-2050>
- 3 Research and Markets. 2021. "The Worldwide Electric Vehicle Industry is Expected to Grow at a CAGR of 26.8% from 2021 to 2030." Press release.
- 4 Navius Research. 2021. Achieving Net Zero Emissions by 2050 in Canada. Analysis commissioned by the Canadian Institute for Climate Choices. <https://climatechoices.ca/wp-content/uploads/2021/02/Deep-Decarbonization-Report-2021-01-21-FINAL.pdf>
- 5 Ibid.
- 6 Statistics Canada. 2021. "Table 20-10-0021-01: New motor vehicle registrations." Government of Canada. <https://doi.org/10.25318/2010002101-eng>
- 7 Drew Desilver. 2021. "Today's Electric Vehicle m=Market: Slow Growth in U.S., Faster in China, Europe." Pew Research Center. June 7.
- 8 Shepardson and Mason. 2021. "Biden seeks to make half of new U.S. auto fleet electric by 2030." Reuters. August 5.
- 9 David Ljunggren. 2020. "Environment minister raises idea of joint Canada, U.S. ban on new gasoline-powered vehicles." National Post. December 17; Natural Resources Canada. 2020. From Mines to Mobility: Seizing Opportunities for Canada in the Global Battery Value Chain. Government of Canada.
- 10 PitchBook Data Inc. 2021. Custom search (data has not been reviewed by PitchBook analysts). [Pitchbook.com](https://pitchbook.com)