



Commercial Vehicles Radar 2023

INVENSITY
Commercial Vehicle Market Update

January 2023



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A. Executive summary



Global Radar

Market impact



Confidence level



- New commercial vehicle registrations across the EU were down by 15.5% to nearly 1.5 million vehicles in as of November 2022. The four EU key markets all suffered double-digit losses, contributing to the region's negative performance: Spain (-19.2%), France (-18.1%), Germany (-12.8%) and Italy (-10.7%).
- Light commercial vehicle segment will be 7.02% CAGR, with medium and heavy trucks registering a CAGR of 7.4%. The logistics segment accounted for the largest share of over 26% of the overall market in 2022

Market Outlook

Market impact



Confidence level



- Electrification and net zero emissions regulations will fuel the commercial vehicle market faster in medium- to long-term through 2030. In Europe, the electrification of buses and trucks are projected to rise by 40% between 2022-2025.
- Nearly one-fifth of countries in Europe had already exceeded pre-pandemic levels in commercial vehicle registrations, including Greece, Ireland, Austria and Poland. Over one-fourth are close to a full return (e.g. Italy and UK). IHS projects medium and heavy vehicle production to reach 609,000 units in the Euro zone by 2023.
- Automotive players will continue to innovate on mobility technologies, with greater investments in electric vehicles and software. The global R&D budgets is tipped to increase with a year-over-year growth of 6.8% for 2022.

Industry Requirements

- Globally, 90% of light commercial vehicles and 80% of heavy-duty trucks are covered by fuel economy standards and vehicle efficiency regulations. 67% of countries (130) pledged net zero emissions by 2050, including more than 20 European nations.
- A target of 100% carbon reduction or a full ICE ban has been set by EU for 2035. All major countries have provided incentives for the electrification of public transit.

Market impact



Confidence level



B. Global Commercial Vehicles Industry Radar



Global Commercial Vehicles Radar 2023

5% market CAGR



Market Intensity

Mature industry suffering hit from COVID. However, new technologies and electrification could revive market.

Electrification of models



Competitive Intensity

Consolidated industry with strong incumbents. Companies are launching electric trucks and buses to meet carbon goals.

6.5% R&D increase in 2021



Innovation Intensity

E-mobility and software are boosting global automotive R&D spending by 6.8% in 2022.

80% with regulations

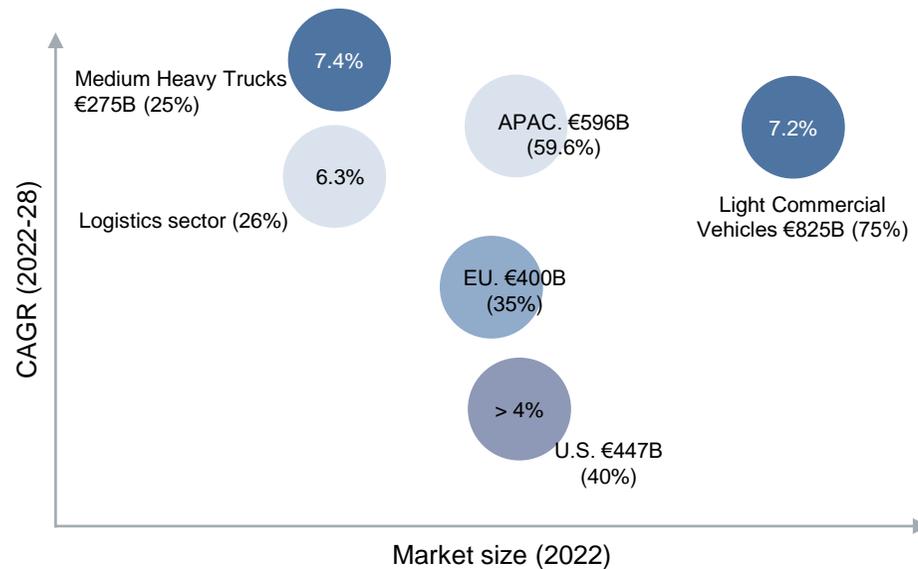


Regulatory Intensity

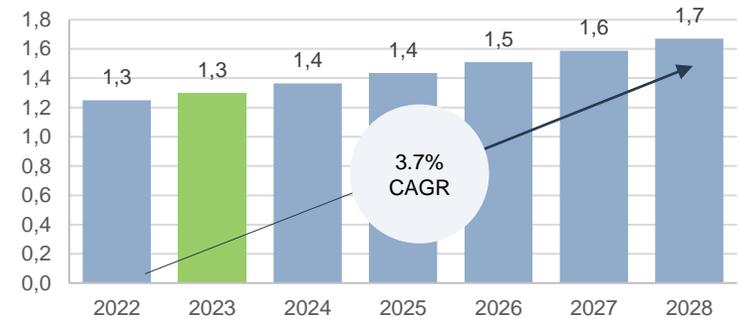
80-90% of Light Commercial Vehicles and Heavy Trucks are covered by fuel economy and efficiency regulations

Global commercial vehicle market has returned to growth in 2022 from decline in 2021, with market projected to reach pre-pandemic levels by 2023

Global segment CAGR (2022-28)



Global commercial vehicles (€t), 2022-30



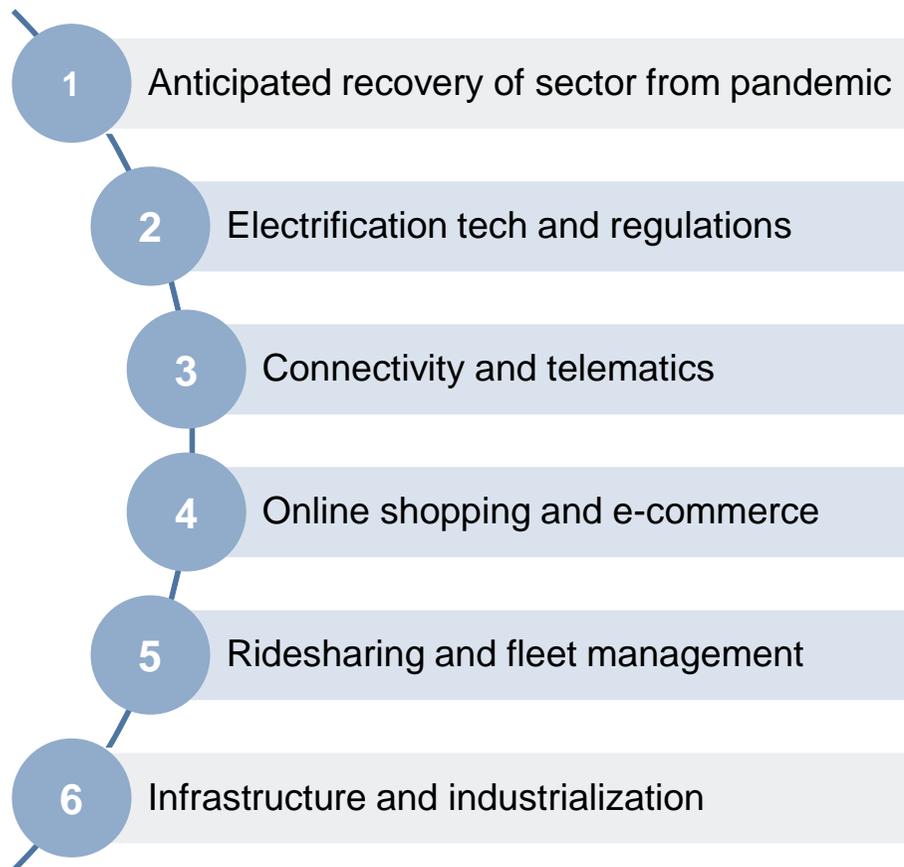
Commercial vehicle market production could return to pre-pandemic levels by 2023-24. Expected economic recovery could also revive market.

Note: LCV – light commercial vehicles, MHT – medium and heavy trucks. CAGR – compound annual growth rate.

Source: Grand View Research, BCG, WARDAUTO, Allied Market Research, Precedence Research, IHS, CAGR: Fortune Business Insights, Mordor Intelligence

C. Market Drivers





- **Regulations.** BCG estimates that by 2030, over 34% of LCVs and 20% of MHTs sold will be battery-powered. The total cost of ownership for EVs could be lower than ICEs by 2025. Automotive investments in battery technology to rise to €287 billion worldwide in the next five years.
- **Electrification.** Major auto brands, ex. Daimler and Renault, are launching electric product range for commercial vehicles. Portfolio of leading automotive companies are expanding or shifting to include electric fleets.
- **Connected and autonomous cars.** Industry will continue to invest in connectivity and autonomy, with 5G rollouts and 6G planned across Europe. Sensors in cars enhance the driver, fuel and car performance, predictive maintenance and vehicle insurance.
- **Shopping digitization.** Pandemic influenced online shopping behavior greatly, and this experience will expand to the transport/automotive industry.
- **Mobility-as-a-service.** Enterprises experiment with new revenue models including mobility-as-a-service, fleet management, and leasing options.

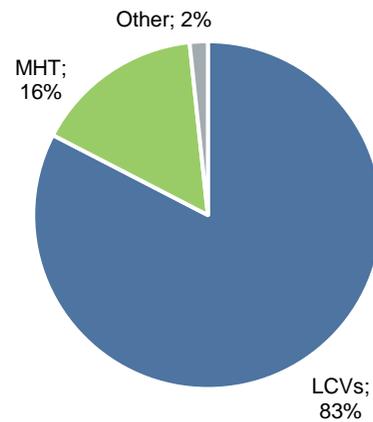
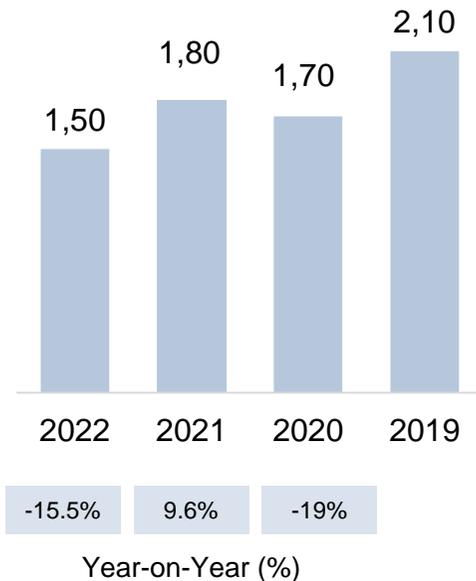
Note: LCV – light commercial vehicles, MHT – medium and heavy trucks, ICE – internal combustion engine.
 Source: INVENSITY Analysis, IHS, CNBC, Linchpin, Interact Analysis, McKinsey, Alix Partners

D. EU Region Market Trends



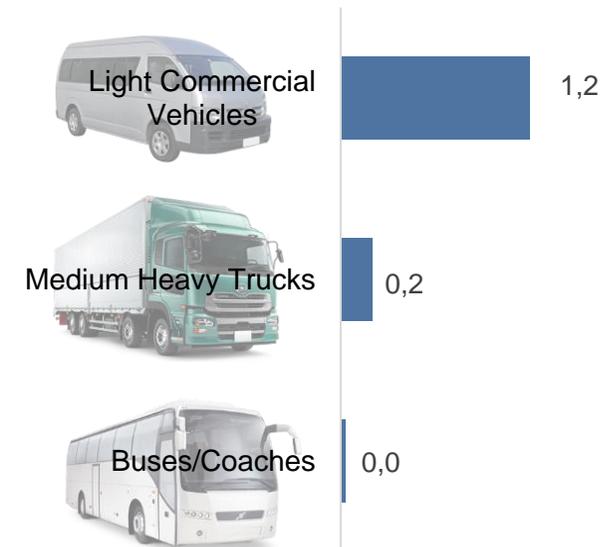
EU commercial vehicle registrations down by 15.5%, the four EU key markets all suffered double-digit losses

New registrations (million vehicles)



Fleet share (%), 2022

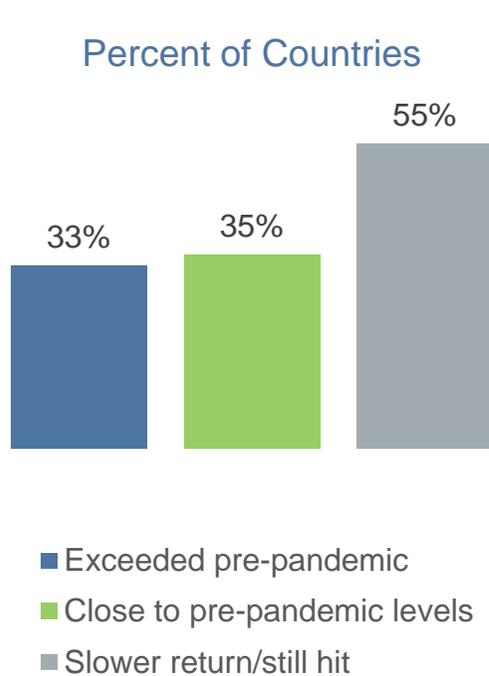
Total EU fleet (million vehicles), 2022



EU commercial vehicle market size is estimated at €387-400 billion. 83% of EU fleet is comprised of **1.2 million** light commercial vehicles (LCVs). 235,670 are made up of medium and heavy-duty trucks and 25,190 are buses and coaches.

Source: EU ACEA

EU commercial vehicle registrations down by 15.5%, The four EU key markets all suffered double-digit losses



Note: CV – commercial vehicle. LCV – light commercial vehicles, MHT – medium and heavy trucks. YoY – year-on-year.
Source: EU ACEA

		Difference from pre-pandemic	%YoY 2022
Greece		21%	4%
Austria		-28%	30%
Ireland		-1%	-4%
Poland		1%	-6%
Italy		-2%	16%
Denmark		-14%	4%
UK		-11%	24%
France		-32%	8%
Finland		-11%	-6%
Germany		-10%	-12%

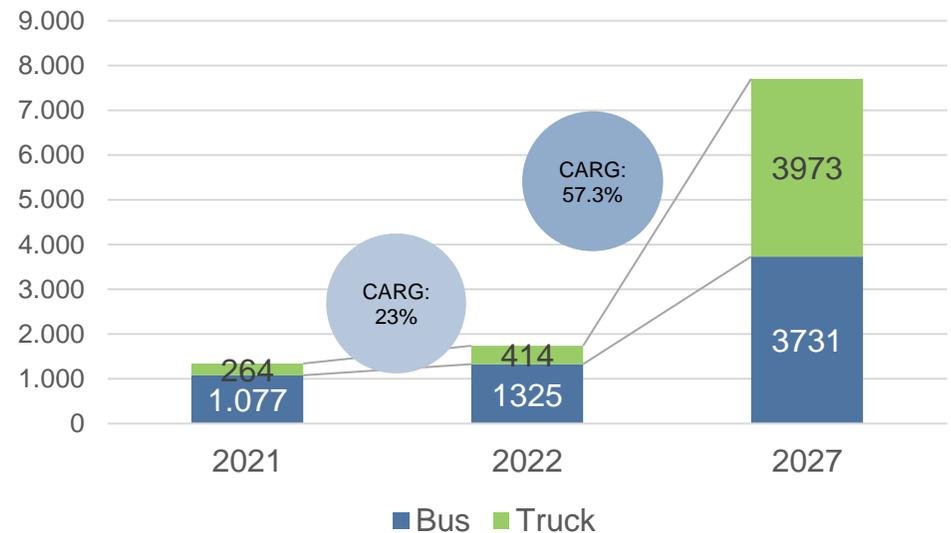
E. Development: Electrification and Regulations



Electrification and net zero emissions regulations will fuel the commercial vehicle market faster in medium- to long-term through 2030



Electrification of bus and trucks in Europe (€m)



Note: LCV – light commercial vehicles, p.a. – per annum. Source: Climate Home News, Wallbox, EU-Lex, EU Fit for 55, IEA, Siemens

Status of electrification of commercial vehicle plans of key companies

Mercedes-Benz Group	Electric first policy commits to zero-emission trucks. Fuel cell collab with Volvo.
Renault Group	Electric range by 2023, zero emissions by 2040
Volvo Group	Piloted long-distance electric trucks with DHL. Electric truck range for different industries
Scania AB	Introduce 1 new electric bus/truck each year
MAN SE	60% of delivery trucks will be emission-free by 2030 (40% for long-haul trucks).
VDL Groep	Transitioning bus operators and governments for electric shift
IVECO	Fossil free by 2040

Electrification and net zero emissions regulations will fuel the commercial vehicle market faster in medium- to long-term through 2030

- 130 nations including over 20 EU countries are aiming for net zero emissions by 2050, resulting in stricter CO2 emission standards. In Europe, a goal was set to reduce LCV emissions by 31% in 2030. EU Regulation 2019/631 increased the emission limit of LCVs to 147 grams CO2/km. Manufacturers that exceed are charged €100 per excess.
- The EU Fit for 55 package consist of proposals to reduce the region's emissions by 55% from 1990 levels in 2030. A target of 100% carbon reduction or a full ICE ban has been set for 2035. Government also aims to increase alternative fuels infrastructure, investments in zero-emission tech, implement carbon pricing program and energy taxation.
- In EU there are incentives across all major countries for public transit. In West Europe, 12 countries offer monetary or premium incentives for buying EVs, from amounts of €3,300 to €12,000.

Country-specific



Ireland

45% of buses and 10% of trucks procured by public bodies **will** be low- or zero-emissions (65% and 15% by 2030)



Austria

100% of new heavy-duty vehicles (<18 tons) to be zero-emissions in 2030, and for those >18 tons by 2035.



Hungary

Green Bus Programme will replace half of conventional buses in large cities with electric buses over the next decade.



Norway

50% of new heavy-duty truck sales and 75% of long-distance buses to be zero emissions by 2030



Denmark

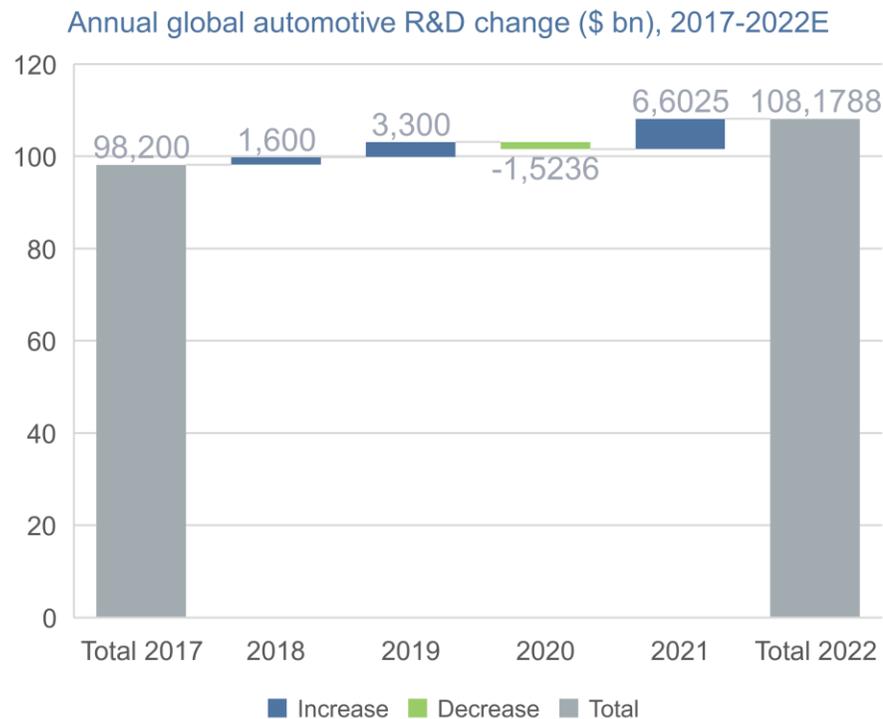
100% zero-emissions public transport by 2030, and all new buses from 2025

Note: LCV – light commercial vehicles, p.a. – per annum. Source: Climate Home News, Wallbox, EU-Lex, EU Fit for 55, IEA, Siemens

F. Innovation and R&D



Automotive players will continue to innovate on e-mobility tech and software. R&D budgets recovered in 2022, after shrinking in 2020.



Automotive companies had a 6.5% R&D increase in 2021, after drop in R&D budgets of -15% in 2020.
Europe automotive R&D decreased by approximately -4%.

The e-mobility segment has the largest 23% of R&D spend, higher than other car technologies, including autonomous cars. 45% of companies plan to spend more on software features. Many of new R&D spending will be made by silicon vendors and OEM tier 1 and tier 2 suppliers.

“E-mobility is a major window of opportunity for R&D investment and will drive growth over the next 20–30 years.” – IHS Markit

Source: BCG, Statista, Markets and Markets, Hiboox, Thread in Motion, Statista, WARDAUTO, IHS Markit

G. EU Commercial Vehicle Classification



M1

Used for the carriage of 8 passengers, having a maximum mass not exceeding 3.5 tons.



N1

Used for the carriage of goods, having a maximum mass not exceeding 3.5 tons.



M2

Used for the carriage of > 8 passengers, having a maximum mass not exceeding 5 tons.



N2

Used for the carriage of goods, having mass > 3.5 tons but not exceeding 12 tons.



M3

Used for the carriage of > 8 passengers, having a maximum mass exceeding 5 tons.



N3

Used for the carriage of goods, having a maximum mass exceeding 12 tons.



Note: Two directives of the European Parliament and of the Council serve as sources for these definitions and classifications: 2002/24/EC of 18 March 2002 and 2007/46/EC of 5 September 2007.

Source: UNECE, TransportPolicy.net, MOT Testing,

This report is intended for general guidance and information purposes only. This report is under no circumstances intended to be used or considered as financial or investment advice. The information contained herein may be subject to changes without prior notice.

H. INVENSITY Industry Radar



INVENSITY Industry Radars are high-level market overview papers highlighting key market trends and assessments of industries



Market environment

Identify market sizes, segments and growth opportunities. Understand market drivers / trends. Stay on top of regulatory changes and environment.



Key players and competitors

Zoom in on key competitors in Europe. Get an overview of products and analyze their business models.



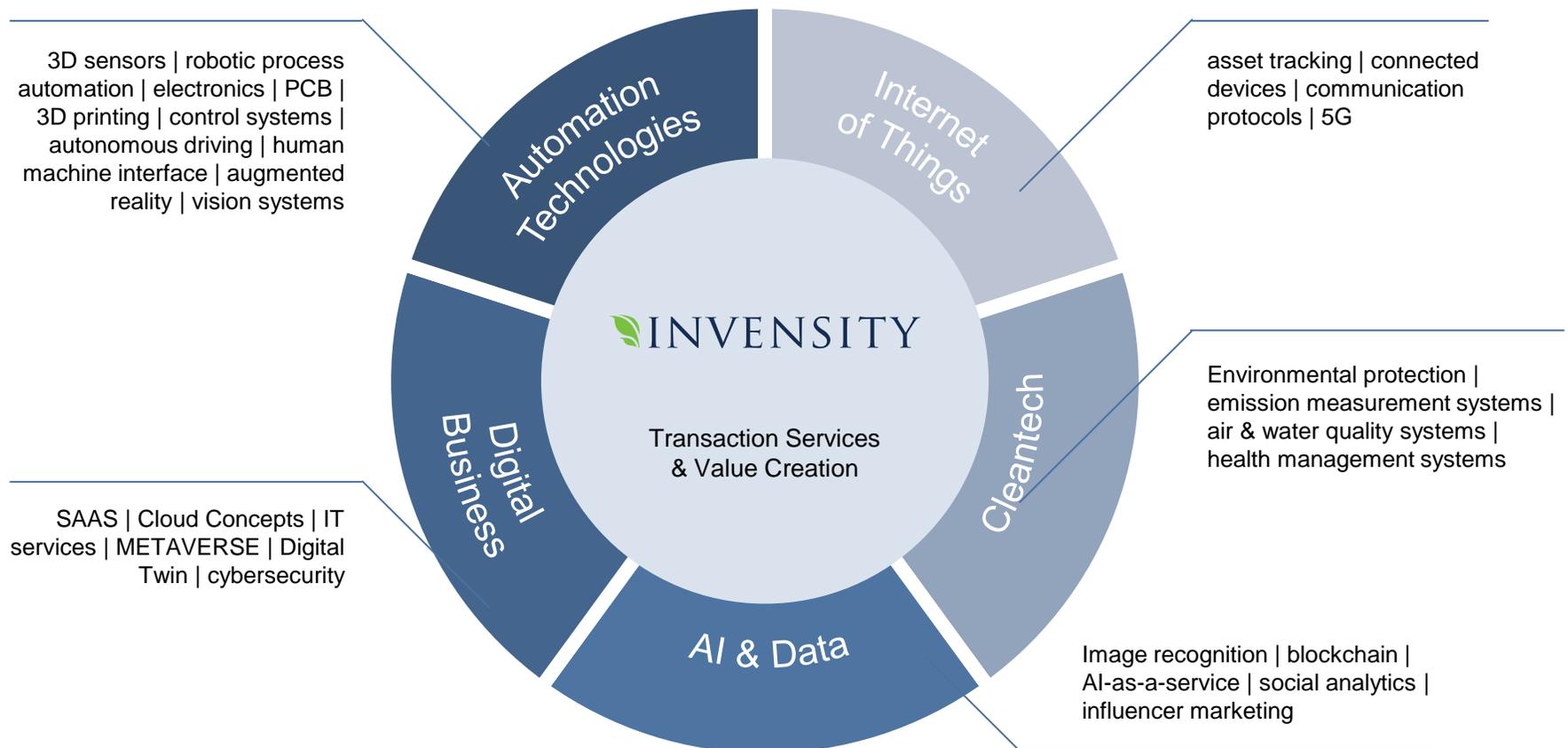
Scenarios and recommendations

Dive into potential forecast scenarios and recommendations by industry leaders, analysts and reports.

I. About INVENSITY GmbH



INVENSITY advises buyers and sellers in domestic and cross-border mergers & acquisitions of technology-oriented companies



J. Contact



Feel free to get in touch in case of questions or feedback



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