The automotive industry

in Catalonia





The automotive industry in Catalonia: sector snapshot

ACCIÓ Government of Catalonia



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Global automotive industry overview





Description of the automotive industry value chain























Raw material suppliers

(Steel, metals, polyurethane, chemical products for coatings, plastics, etc.)

TIERS 1, 2 and 3

Battery suppliers

Connectivity & automation suppliers

OEM manufacturers

Logistics

Distribution, imports, exports

Vehicle dealerships **Consumers**

Mobility as a Service

Aftermarket

Services for consumers

Engineering & services for companies (certification bodies, etc.)

Technology & R&D centers

Associations & trade fairs and congresses

Universities & training centers





Source: ACCIÓ

The global automotive industry



93.3
2019 million
vehicles registered

Source: ACCIÓ, based on ACEA

18.3

69

million commercial vehicles

2020 main global manufacturers







STELLANTIS

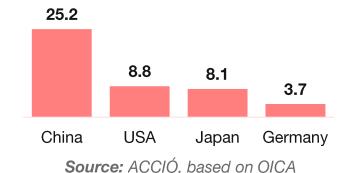




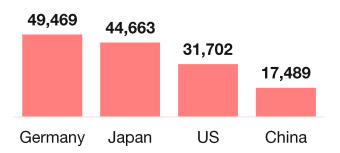


Source: ACCIÓ, based on Orbis

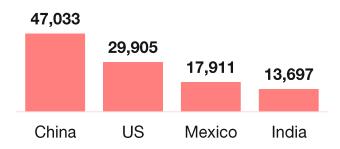
Leading global **producers** [2020 million produced units]



Main global **FDI origin countries** [capex €M]



Main global **FDI destination countries** [capex €M]



Source: ACCIÓ, based on fDi Markets 2016-2020





The European automotive industry

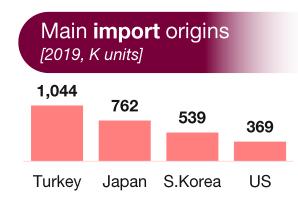


23.8%

of 2019 global unit production

Source: ACCIÓ, based on ACEA





Source: ACCIÓ, based on ACEA

2020 main European manufacturers





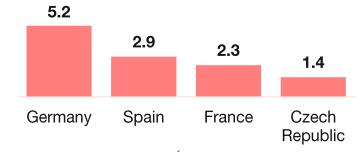




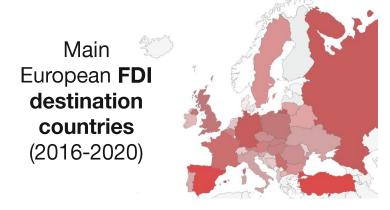


Source: ACCIÓ, based on Orbis

Leading European **producers** [2019 million produced units]



Source: ACCIÓ, based on ACEA



Source: ACCIÓ, based on fDi Markets





The Spanish automotive industry

Spanish OEMs



The driving force for technology and the economy

- 2nd European car manufacturer and 8th worldwide (2020)
- 1st European manufacturer of industrial vehicles
- 4th European component manufacturer
- **2,268,185** vehicles produced (2020)
- In Spain, the share of vehicles running on alternative energy has increased by +30.7% in 2020:

	Fossil fuel		Alterna	Alternative energy	
2020		80%		20%	
2019		89%		11%	
2018		93%		7%	

TOP 5 BRANDS	Units sold in 2020
SEAT	68,721
Volkswagen	66,817
Peugeot	65,699
Toyota	57,580
Renault	56,138

Source: ACCIÓ, based on ANFAC and SERNAUTO





The automotive industry in Catalonia





Summary of the automotive industry in Catalonia

352 companies¹



€19,404M turnover¹



21.8% of the sector in Spain

8.66% of the total GVA (Gross Value Added)

Second largest industrial sector by turnover in Catalonia, after food

38,845 employees¹



386,070 units produced



17.0% of production in Spain

Automotive manufacturing industry + Vehicle sales and repair 2

10,473 companies

1.7% of Catalan companies

14.4% of the sector in Spain







Footnote 1: Includes OEMs, Tier 1, Tier 2 and Tier 3

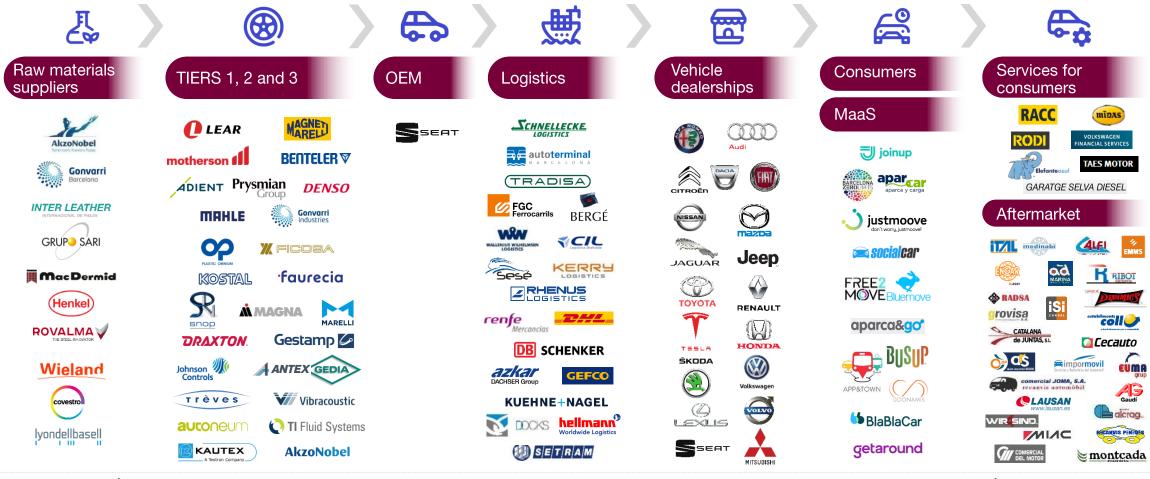
Footnote 2: Includes OEMs, Tier 1, Tier 2, Tier 3 and vehicle sales and repair

Source: ACCIÓ, based on turnover and employee data from the INE – Structural statistics of companies: industrial sector 2019, data on number of companies from the INE - DIRCE, Central Business Directory 2020, and data on units produced from MarkLines 2020





The Catalan automotive industry value chain



Source: ACCIÓ, based on Orbis, CIAC (Automotive Industry Cluster of Catalonia), the Barcelona & Catalonia Startup Hub directory (ACCIÓ), CIRA (Catalan Aftermarket Association), CMAV (Advanced Materials Cluster), MaaS Catalonia, and DGI





The Catalan automotive value chain providers



Footnote: sample of companies by turnover. This partially illustrates the automotive value chain providers in Catalonia although other companies may exist that have not been included in the study

Source: ACCIÓ, based on DGI - Directorate General for Industry of the Government of Catalonia 2021





The Catalan automotive industry support ecosystem

Engineering and services for companies **A**rplus[⊕] Global Automotive Capgernini engineering **LEAR** AKXA **BEDAG** TECNOUELERO® SERRA ARITEX **KUKA** IDIADA btech^c FormelD **S**group teknics Gestamp 6 WETRON **RDT** AVL 🐉 PROCON bertrandt Tectrol Ingedetec IBO eks KIVN On Malena engineering **ISELEC SEGULA SCHUNK** СТ Technology and R&D centers *CVC AMADE AMAYSS AND ADVANCED MATERIALS (D6) **IREC**⁹ inLab FIB Institut de Robòtica i Informàtica Industria GREIA Centre de Disseny i Optimització de Processos i Materials **CIMNE**⁹ **CITCEA** an laSalle **∜Fes** eurecat i2cat **C**nm® Arplus[⊕] |CFO⁹ CEMIC CTTC9 IDIADA Clusters, trade fairs, associations and other supporting bodies Associations and other Clusters **Trade fairs** supporting bodies CEEC Clúster d'Eficiència Energètica de Catalunya secpho ADVANCED FACTORIES WOTO WOTO Circuit de Barcelona MWC* CIRA Associació Catalana de Recanvistes motorsport Mav SILBARCELONA expo & congress //B2B ciac clustermoto de la clustermoto AUTOMÖBILE BARCELONA SMART**MOBILITY** IOT SOLUTIONS WORLD CONGRESS CATALONIA LIVING LAB Universities and training centers UNIVERSITAT DE VIC UNIVERSITAT CENTRAL DE CATALUNYA UNIVERSITAT POLITÈCNICA DE CATALUNYA BARCELONATECH CIM UVIC enginyeria **CFPA** Universitat ROVIRA I VIRGILI Universitat de Lleida

Footnote: This partially illustrates the bodies making up the automotive support ecosystem in Catalonia, although other entities may exist that have not been included in the study

Source: ACCIÓ





Sustainable and energy-efficient vehicles in Catalonia

Catalonia is ready for sustainable mobility, with **almost 3,282 EV charging stations** spread throughout the region, thus leading the ANFAC electromobility index in Spain.

Electrical vehicles manufactured in Catalonia:

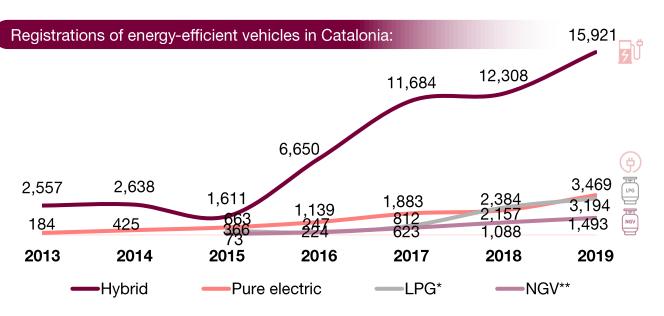






Seat León e-HYBRID Seat León Sportstourer e-HYBRID

urer e-HYBRID Cupra Formentor e-Hybrid





Footnote: LPG = Liquefied Petroleum Gas vehicles, NGV = Natural Gas Vehicles

Source: ACCIÓ, based on ICAEN (Catalan Energy Institute), ANFAC Electromobility Barometer T1-2021 and Marklines 2021





In 5 years, Barcelona has attracted €144M of investment in transportation and mobility start-ups

Barcelona has attracted €144.2M of investment in transportation and mobility start-ups between 2016 and 2020 (Dealroom, 2021)

	2016	2017	2018	2019	2020
Investment (€M)	10.8	6.7	41.9	16.2	68.6



Most representative investments of 2016-2020:

paack

€45.6M 2016-2020 3 rounds

wallbox

€26.9M 2019-2020 3 rounds cooltra O)

€15M2018
2 rounds

SILENCE

€11M 2016-2018 2 rounds

ecoolta

€10M 2018 1 round

YEGO

€9.1M 2018-2020 3 rounds

Footnote: ACCIÓ based on consultation filed with Dealroom from Barcelona as a founding location Source: Dealroom 2021 (consulted 02/02/2021)





Strong presence of R&D centers in Catalonia that are focused on the automotive industry

Tech centres focused on the automotive industry, providing technology development, innovation, testing, and industrialization of the entire value chain, as well as **IT tech centres**, developing technologies and materials for **connected and self-driving cars**, **including car cybersecurity**.

Centers with the ACCIÓ TECNIO accreditation











































Other centers

Catalonia o Trade X Investment













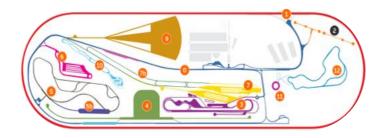


The best facilities for the automotive industry

Applus[®]

Headquartered in Barcelona, it is one of the world leaders in testing, inspection, homologation, verification, design, and engineering services for the automotive industry, with 56 centers operating in 22 countries.

- Professional team
- Top-level facilities
- Innovation
- Development integration
- Comprehensive knowledge
- Design





- The site covers an area of 800,000 m², offering top-class facilities for every motorsport discipline and level.
- The ideal setting for competitive races, team training sessions, vehicle testing and development, manufacturer presentations and events, training courses, and leisure activities.
- One of a kind circuit thanks to the agreement with Cellnex Telecom, tasked with turning the site into a state-of-the-art, innovative testing area for the development of ITS technology.





- With the staging of the F1 Grand Prix, the MotoGP Grand Prix, the FIA Rallycross World Championship, and other important motorsports competitions, the Circuit de Barcelona-Catalunya showcases its own name on a worldwide level.
- In addition to competitions, Circuit de Barcelona-Catalunya rents its facilities throughout the year for private and collective tests, driving courses, incentive and training days, world presentations, and many other events. The other spaces can also be used to carry out all kinds of sales, social, and/or PR activities.



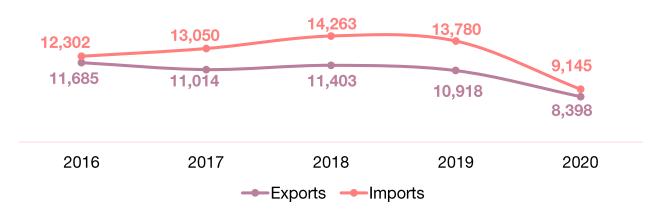
Source: ACCIÓ





Catalan Trade in the Automotive Industry

Catalan foreign trade in the automotive industry (€M)



- In 2020, 19.1% of Spanish automotive exports were Catalan and 18.1% of Catalan exports came from the automotive industry.
- Between 2016 and 2020, Automobiles Production was the most exported subsector (74.2%), followed by Components Production and Other motor vehicle parts (24.2%) as well as Production of vehicle bodyworks (1.6%).
- Between 2016 and 2020, Germany, France, and United
 Kingdom were the three main destinations for Catalan exports.





Source: ACCIÓ, based on ICEX (CNAE code 29: Manufacture of motor vehicles, trailers and semi-trailers)





Catalonia's four main logistics assets

A major industrial area with a marketplace to match

Unparalleled distribution capacity

Integrated Logistics Hub Specialized logistics services and main global and regional logistics operators



Strong specialized industrial ecosystem, with the presence of international companies, that is highly open to the world and provides fast access to a large market.



An excellent geostrategic position allows for efficient intercontinental connections to Asia and America, as well as easy distribution to Southern Europe and Northern Africa. Distribution capacity to Spain, Portugal, Italy, France, Morocco in 24-48 hours.



Catalonia is the only location in Southern Europe featuring both an international port and airport, as well as duty free and logistics areas with warehousing capacity within 12 km.



A leading ecosystem of specialized local and international logistics operators, providing value-added services to industries, such as textile, chemicals, automotive, agri-food, pharma, and e-commerce.





Port of Barcelona and Port of Tarragona, two European and Mediterranean automotive hubs



FACILITIES					
Land area (2019)	1,113 ha				
Docks and berths (2019)	23.2 km				
Depth (2019)	Up to 16 m				
Container traffic (2019)	3.3 MTEU				
Total traffic (2019)	67.7 Mt				
Automotive (2019)	777,688 u				

Leading vehicle traffic in the Mediterranean with two specialized terminals (Autoterminal and Setram), vertical areas with a capacity for 24,000 units, 5 cargo rail tracks, 5 ro-ro ramps, 1,200 linear meters of berthing space and new areas underway for car distribution.



FACILITIES				
Land area (2019)	543 ha			
Logistics activity area (2019)	92 ha			
Depth (2019)	19 m			
Container traffic (2019)	47,985 TEU			
Total traffic (2019)	33.2 Mt			
Automotive (2019)	211,310 u			

The Port of Tarragona is the **3rd best port in Spain in automotive terms**, according to the Spanish Association of Automobile and Truck Manufacturers (ANFAC).





Source: ACCIÓ, based on Port of Barcelona 2019 Annual Report and Port of Tarragona 2019 Annual Report and Vehicle leaflet





Automotive industry FDI in Catalonia

- 27 FDI projects were recorded in Catalonia. These projects amount to a total capital investment of €1,013 M, which amounts to an average investment of €37.5M per project. During the period, a total of 2,558 jobs were created.
- Automotive FDI accounts for 3.5% of total projects, 6.5% of the capital investment, and 3.0% of the jobs created in Catalonia.
- The Catalan automotive industry inward FDI accounted for 40.9% of the projects, 16.2% of the capital investment, and 19.7% of the jobs created in Spain.
- Catalonia is the 7th region in Western Europe in number of projects, ranks 5th in terms of job creation, and 3rd in capital investment in the automotive industry.
- FDI in Catalonia accounts for 4.1% of the projects, 4.7% of the capital investment, and
 4.3% of the jobs created in Western Europe.
- Over **14 companies** have invested in the Catalan automotive industry in the last five years.

Companies investing in Catalonia during the 2016-2020 period

























Footnote: The data in this analysis comes from fDi Markets source, which only covers greenfield projects. Reinvestments and acquisitions are not considered







Source: ACCIÓ, based on fDi Markets, 2016 – 2020

A major pool of qualified and specialized talent

The Catalan university system stands out for its ability to attract talent from all over the world:

- The **UPC** ranks 1st in Europe as to scientific production in the field of Mathematics and Computer Sciences. Leiden Ranking, CWTS, 2019
- The **UB** is the **7th best European university.** Top 200 Universities in Europe, uniRank 2020
- The **UPF** is the **10th highest-ranked university** in the world among those under 50 years of age (ranked 5th in Europe and 1st in Spain) Young University Rankings – Times Higher Education 2020

12 universities offer Engineering degrees and master's degrees in fields such as automotive, industrial organization, mechanics, electronics, design, automation, robotics, materials, IT, etc., with 1,617 graduates in 2019.

Several specialized automotive industry-related studies in Catalonia – 5,009 graduates (2016-2020):



Degree in Automotive Engineering (Manresa Campus) Master's degree in Automotive Engineering



Degree in Energy and Sustainability Engineering/ Mechanical Engineering (simultaneous)



Degree in Automotive Engineering (Granollers Campus)







+ clustermoto Master's degree in Motorsports and e-Racing



Degree in Automotive Engineering (EU Salesiana de Sarrià)

CFPA Automotive vocational training center



Training center in Additive Manufacturing and Industry 4.0



Master's degree in Electric Vehicle Technologies





Source: ACCIÓ, based on University & Research – Government of Catalonia, CIAC, CIM-UPC, and SOC

Opportunities in the automotive industry





21 international opportunities for Catalan automotive companies







Technological and business opportunities in Catalonia

Industry and manufacturing



Manufacturing of components and parts: Catalonia is one of the main vehicle manufacturing regions in Europe and has a strong presence of companies and centers focused on the automotive industry.



An ideal place for a car batteries operation center. Catalonia's strong industrial ecosystem and its scope allows access to knowledge, technology, and service providers in order to develop and operate the manufacturing and distribution of battery packs.



Fast-forward vehicle: technical and research centers, organizations and professionals from all over the world make Catalonia the best location to develop and achieve more energy-efficient vehicles.

R&D and innovation



Strong presence of R&D centers focused on the automotive industry: Catalan tech centers develop technologies and materials for the vehicles of the future and different mobility options.



Expansion of established and newly developed engineering thanks to R&D, innovation, and new technologies for the automotive industry.



a variety of centers and **Testing and homologation:** organizations for testing and homologating vehicles.

Logistics



Unparalleled distribution capacity: Catalonia's excellent geostrategic position allows for efficient intercontinental connections to Asia and America, as well as easy and fast distribution to Southern Europe, Northern Africa, and Turkey.



A logistics network supporting the industry: the liberalization of car stowage and the reduction of port charges for automobiles create business opportunities. The Ports of Barcelona and Tarragona offer the largest logistics and transport services in Southern Europe.

Technological opportunities



Digitalization of the automotive industry: organizations, research centers, important trade fairs, and professional associations actively promote Industry 4.0 in Catalonia.



Circular economy: the Catalan ecosystem boasts both technological centers and engineering companies specializing in circular economy, which shows its great capacity for research and development.







Thanks!

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More information about the sector and related news:

http://catalonia.com/industries-in-catalonia/sectors/sustainable-mobility-and-smart-cities-industries/automotive-and-motorcycle.jsp





