

May 2023. Sector snapshot

The automotive sector in Catalonia

The automotive sector in Catalonia: sector snapshot

ACCIÓ

Regional Government of Catalonia (Generalitat de Catalunya)



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Execution

ACCIÓ Strategic and Competitive Intelligence Unit

Barcelona, May 2023

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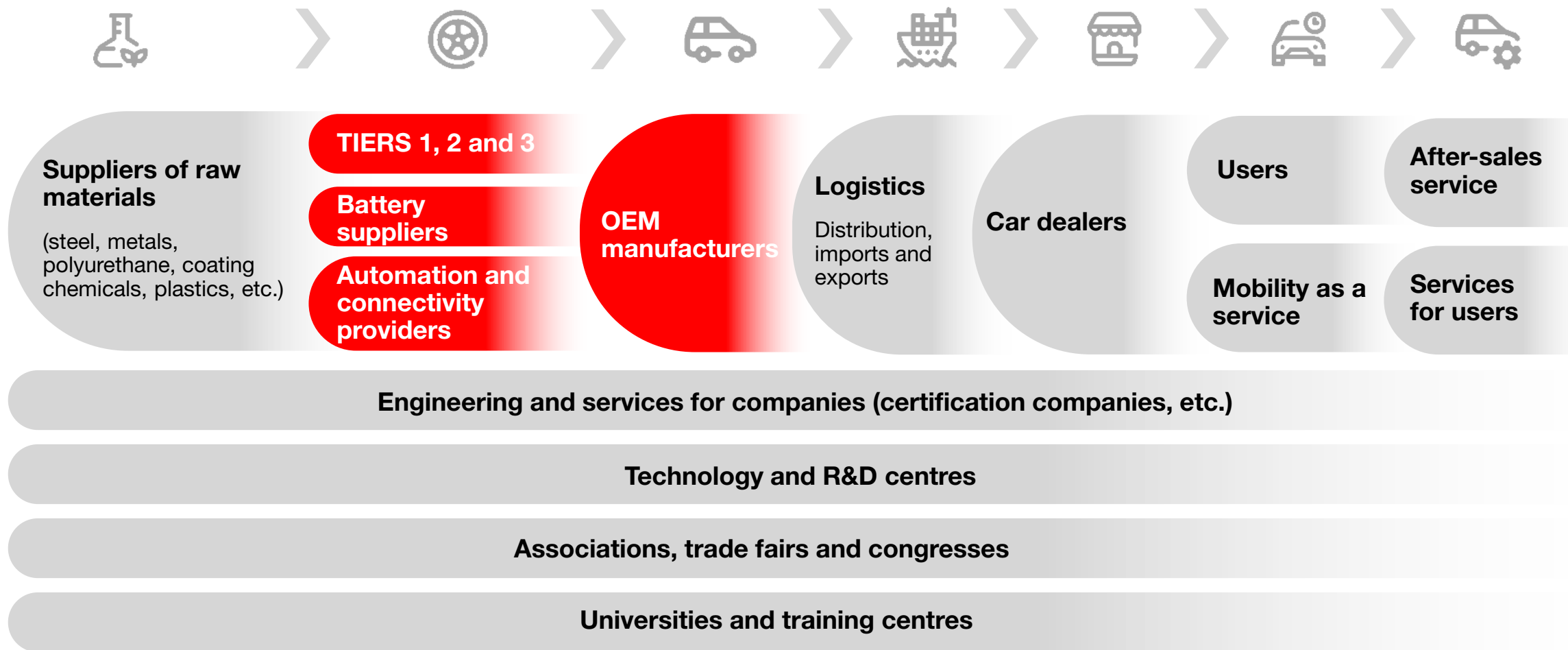


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1. An overview of the automotive sector



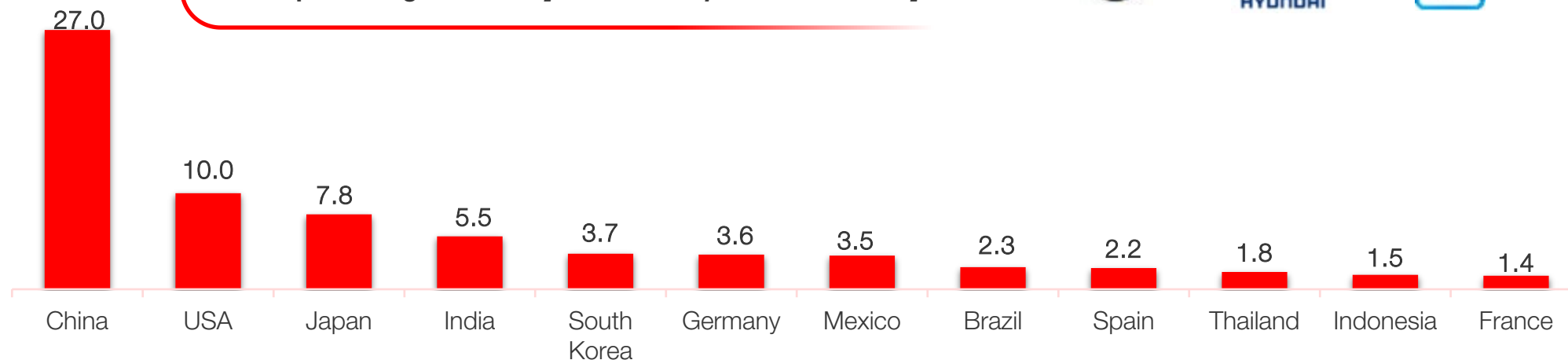
Description of the automotive industry value chain



Automotive production on a global scale

- In 2022, **85** million vehicles were manufactured **worldwide**, **61.6** million passenger cars (72.5%) and **23.4** million commercial vehicles (27.5%).
- The main vehicle-producing countries in 2022 were **China, the US and Japan**. **Germany, Spain and France** are the leading vehicle producers in Europe.

Main producing countries [million units produced in 2022]

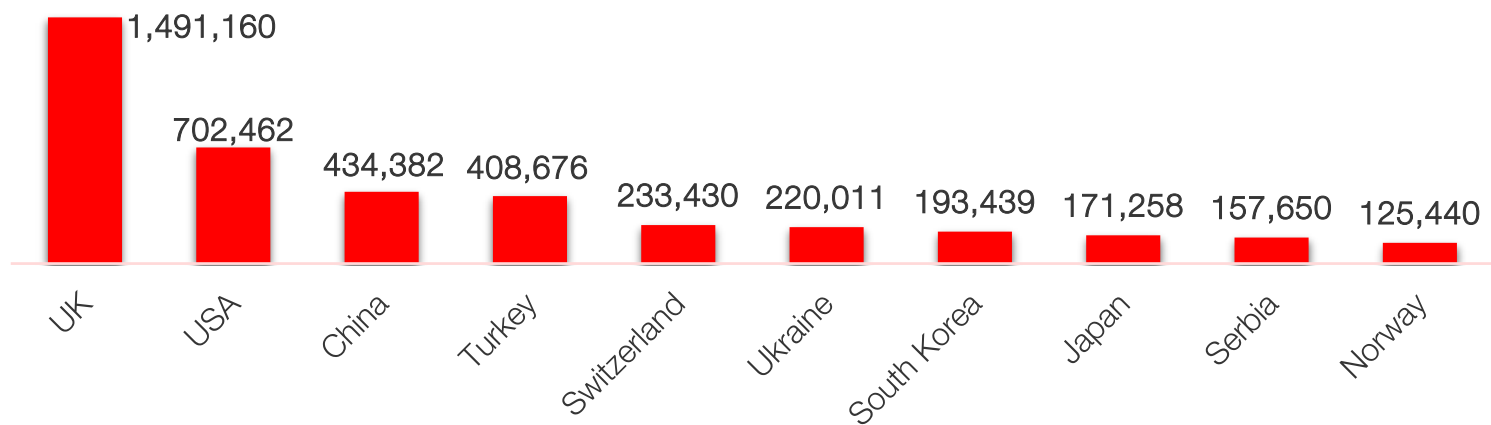


World's leading manufacturers, 2022

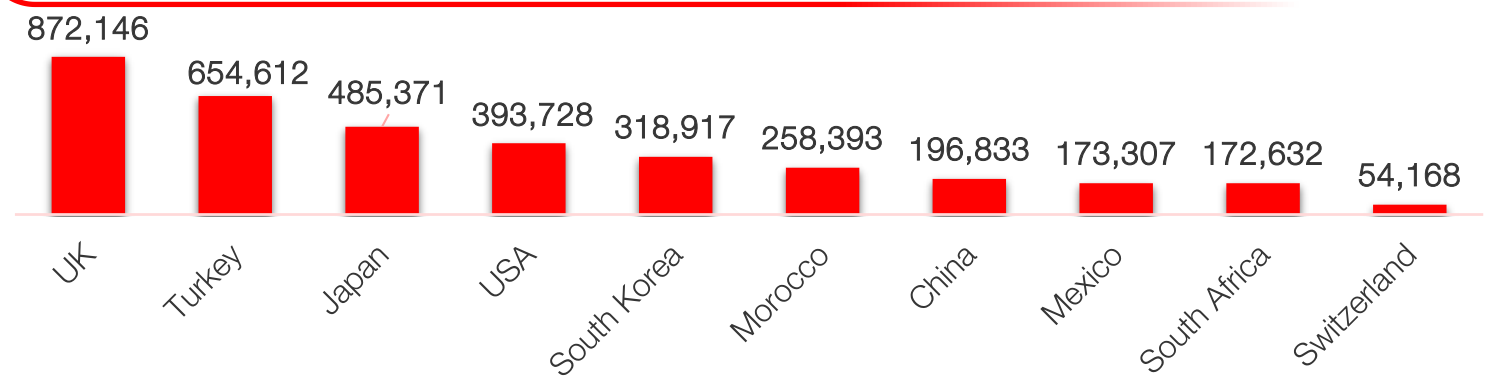


Main exporting and importing countries in the EU automotive sector

Main destinations of EU 2020 vehicle exports (in units)



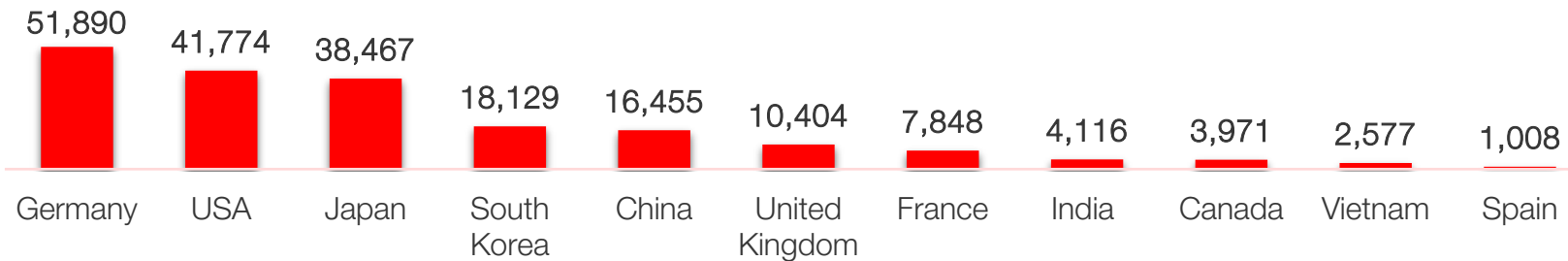
Main countries of origin of EU car imports (in units)



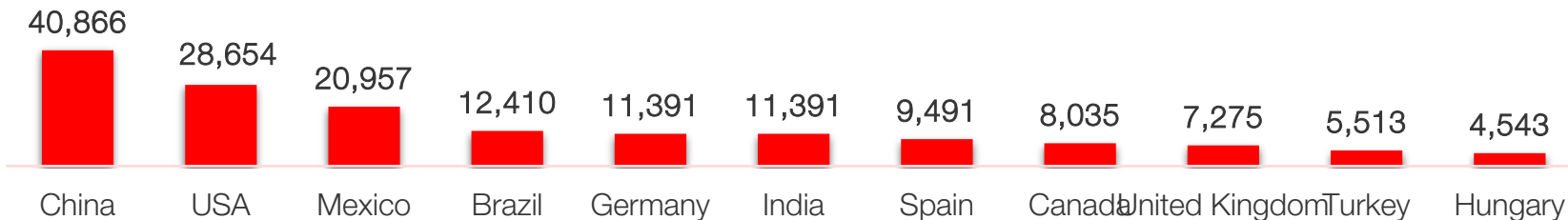
- In **2020**, the **United Kingdom** was the main export destination and the main importer in the EU, with **1.5** million units and **0.8** million units, respectively.
- A total of **5.8 million** units were exported, of which **5.2** million were passenger cars and **0.6** million were commercial vehicles.
- As for imports, a total of **3.7** million units were recorded, of which **3.0 million were passenger cars** and **0.3** million were commercial vehicles.

Main countries investing in the automotive sector (2018 – 2022)

Main countries of origin of FDI [invested capital in €M]



Main FDI destination countries [invested capital in €M]



- **Germany, the US, Japan, and South Korea** are the main countries investing in the automotive sector in the last five years.
- On the other hand, **China, the US, Mexico, and Brazil** are the main destination countries for investments.
- In the **2018 – 2022** five-year period, **Germany, Spain, and France** are the countries that have received most foreign investment capital within the European Union.

International trade fairs in the automotive sector

America



Africa



Europe



Asia and Oceania



The automotive sector in Spain

Spanish OEMs



- **2nd** European car manufacturing country after Germany and **8th** worldwide (2022).
- **1,883,308** vehicles produced in Spain (2022).
 - **320,654** vehicles produced in Catalonia (2022). Third autonomous region in number of units produced in 2022, after Galicia and Aragon.



Major brands in Spain	Units produced in 2022
PSA	764,517
Volkswagen	623,720
Martorell	320,654
Renault	220,077
Ford	146,263
Mercedes-Benz	104,024








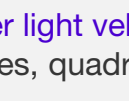




Source: MarkLines 2022, Sernauto

CataloniaConnects

2. The automotive sector in Catalonia



The mobility sector, segmentation of the sector

Rail	Automotive	Motorcycle	Micromobility	Others
 <p>Passenger transport (long distance, medium distance, suburban, metro, section and light trains))</p>	 <p>Passenger cars</p>	 <p>Motorcycles</p>	 <p>Bicycles, tricycles and Electric motorbikes</p>	 <p>Bus</p>
 <p>Transport of goods</p>	 <p>Light commercial vehicles (derived from tourism, pick-ups and vans)</p>	<p>Moped</p>  <p>Other light vehicles (tricycles, quadricycles)</p>	 <p>PMV Personal Mobility Vehicles</p> <p>(scooters, skateboards, skates, segways, hoverboards, solowheels, light vehicles for reduced mobility, etc.)</p>	 <p>Maritime transport</p>
	 <p>Industrial Vehicles (light, heavy industrial and tractor trucks)</p>			 <p>Air transport</p>
<p>Mobility services</p>				

Source: ACCIÓ and IDOM

Quantification of the mobility sector in Catalonia



Companies
543

19.2% of Spanish companies



Turnover
€23,397 million

19.4% of Spanish turnover



People employed
52,277 people

19.4% of Spanish employees

Source: In-Move IDOM study. The companies identified in the mapping have been classified according to the different means to which they dedicate part of their activity and to all the elements of the value chain to which they correspond. This is why there are companies listed in more than one mobility medium and in more than one link of the value chain. The data has been exported from the commercial register using the SABI platform.

Key data for the automotive sector in Catalonia

365 companies



- The number of companies is growing by 1.7% compared to 2021, one point more than in Spain.
- These account for **22.1%** of the total number of companies in the sector in Spain.
- **74.0%** of companies are located in the Barcelona area.
- **90.8%** are small or medium-sized companies.
- **18.3%** are branches of foreign companies.
- **55.6%** are exporters and **44.4%** are regular exporters.

Turnover: €14,730 M



- **3rd largest industrial sector by turnover in Catalonia**, after food and chemicals (**11.3%** of Catalan industrial turnover).
- The turnover of major companies (**9.2%** of all companies) accounts for **89.1%** of the sector's total turnover.
- The sector's turnover accounts for 6.5% of Catalonia's GDP.

Production



- **320,654** vehicles produced in Catalonia (2022), 17% of Spanish production. Third autonomous region in number of units produced in 2022.

36,655 people employed



- **7.6%** of workers in Catalan industry and **23.8%** of workers in the automotive sector in Spain.
- **99.9%** work in companies older than 10 years.
- **72.1%** work in large companies (over 250 employees).

Vehicle manufacturing + sales and repair industry

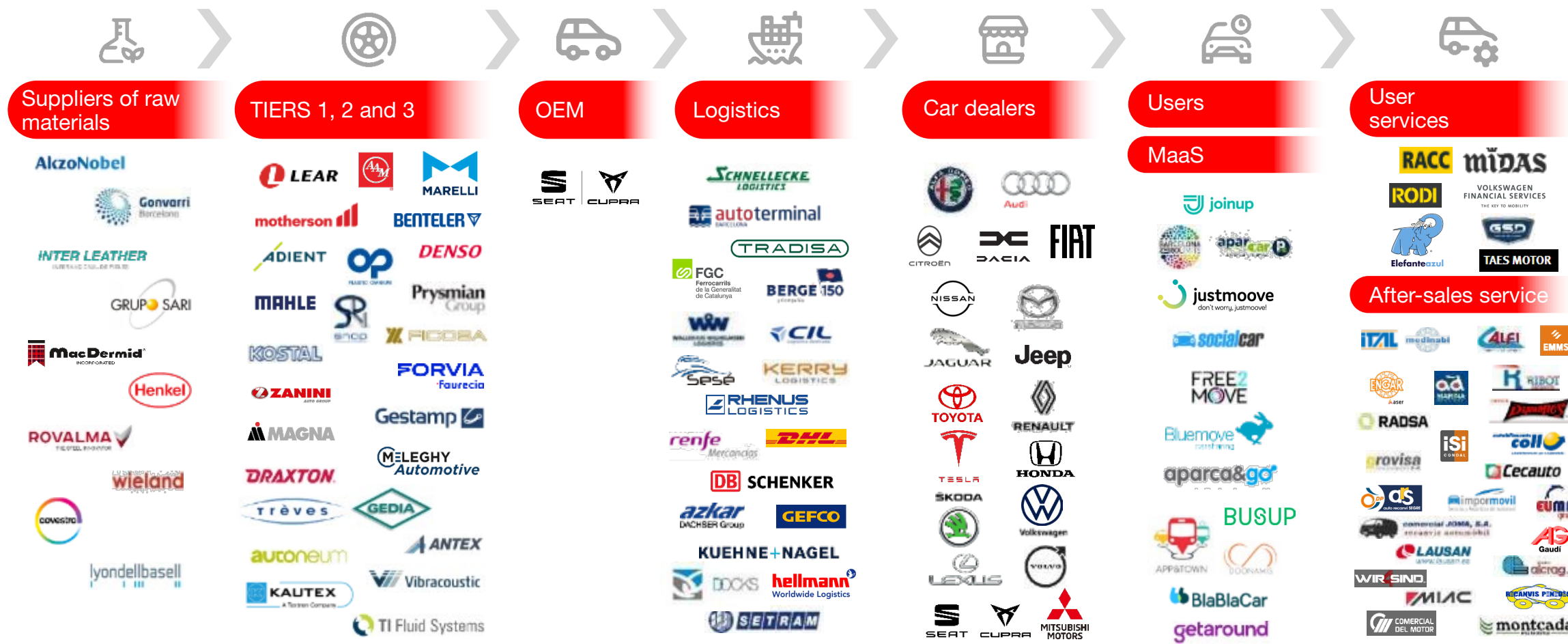
10,353 companies

1.6% of Catalan companies
14.3% of Spanish companies



Source: ACCIÓ, based on turnover and employee data from the INE – structural business statistics: industrial sector (2020), data on the number of companies from the INE – DIRCE, Central Business Directory (2022) and data on units produced from MarkLines 2022

Automotive industry value chain in Catalonia



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

Catalan suppliers of the automotive value chain

Axle, brake and bodywork control



Bodywork and exterior parts



Clean power system



Air conditioning



Transmission



Driver support and telematics



Electronic parts



Engines



Inner parts



Production process



General small parts



Suspension, steering and wheels



Note: sample of companies by turnover; this is a partial representation with the aim of illustrating the suppliers in the automotive value chain in Catalonia, although there may be other companies that have not been included in the study

Source: ACCIÓ, based on the DGI (Directorate General of Industry of the Regional Government of Catalonia), 2023

Catalan automotive startups have become a magnet for investments

In 2022, Barcelona is the ...

- 5th best ecosystem in the EU to set up a startup
- 2nd favourite EU hub for founders to set up a startup
- 4th EU ecosystem in number of scaleups (*)
- 7th EU startup hub for future unicorns (**)

(*) *Scaleups are the next stage of startups: they are startups that have raised over \$1 M, excluding those that have been taken over or are publicly traded (exits).*
 (**) *A **future unicorn** is a tech company valued at more than \$250 M and less than \$1 B.*

A sound and competitive ecosystem

The startup ecosystem in Catalonia boasts a total of **70 startups** in the automotive industry.



These startups use a wide range of technologies, such as:

- | | | |
|----------------------------|------------------------------------|--------------|
| IoT and sensors | Electric vehicle and micromobility | Connectivity |
| AI and Big Data Automation | Cloud and Edge Computing | e-commerce |
| | | Smart City |

Source: Dealroom 2023 (consultation 17/01/2023)

Note: the analysis was performed using the main sector of each company

Ecosystem of the automotive sector in Catalonia

Clusters



Business organisations



Trade fairs in Catalonia



Cross-cutting trade fairs in Catalonia



Universities and training centres



TECNIO Technology Centres



Other Technology Centres



Support entities in the testing phase



Source: ACCIÓ

Major presence in Catalonia of engineering companies dedicated to the automotive industry

In-house engineering and services

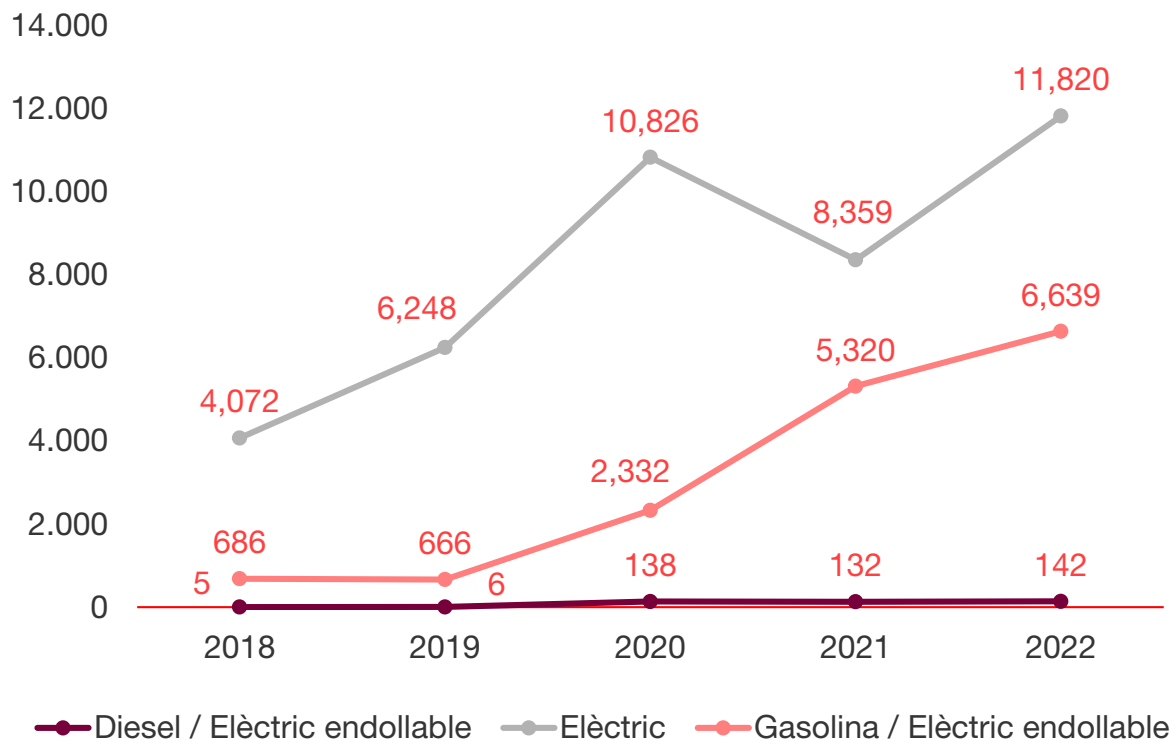


Source: ACCIÓ

Sustainable and energy-efficient vehicles in Catalonia

Catalonia is ready for sustainable mobility, as it has **almost 4,487 electric vehicle charging points** in 2022 throughout the region, hence leading the ANFAC electromobility index in Spain.

Energy-efficient vehicle registrations in Catalonia



Hybrid vehicles manufactured in Catalonia



Seat Leon e-HYBRID
Seat Leon eTSi



Cupra Formentor e-HYBRID

The Volkswagen group is making a commitment to the SEAT plant in Martorell. The company has started the electrification process of the Catalan plant, hence ensuring the manufacture of the group's small BEVs.

Source: ACCIÓ based on ICAEN (Catalan Energy Institute), ANFAC (2022) and MarkLines (2022)

The best infrastructures for the automotive industry



Headquartered in Barcelona, Applus IDIADA is **one of the world leaders in testing, inspection, approval, verification, design and engineering services** for the automotive industry, with 56 active centres in **22 countries**.

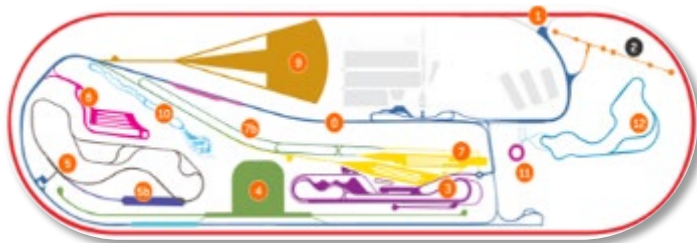
- Professional team
- High-level infrastructure
- Innovation
- Development integration
- Comprehensive knowledge
- Design



- The facility covers an area of 800,000 m² and offers **cutting-edge infrastructure for all disciplines and categories within the motor sport world**.
- It is the perfect setting for **competitive racing, team training sessions, vehicle testing and development, manufacturer presentations and events, training courses and leisure activities**.
- It is a unique circuit thanks to the agreement with Cellnex Telecom, which is responsible for turning this facility into a **cutting-edge and innovative testing space for developing STI technology**.

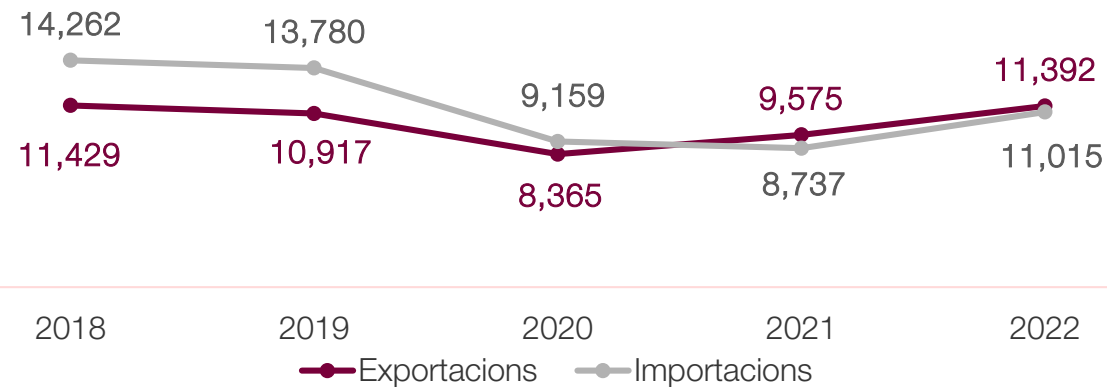


- The Circuit de Barcelona-Catalunya is renowned worldwide, as it hosts **the F1 Grand Prix, the MotoGP Grand Prix, the FIA Rallycross World Championship and other important competitions**.
- In addition to the **competitions**, the Circuit de Barcelona-Catalunya lends its facilities throughout the year for **private and collective testing, driving courses, conferences and training sessions, world presentations and many other events**. The other spaces can also be used to organise all kinds of **business, social and public relations activities**.



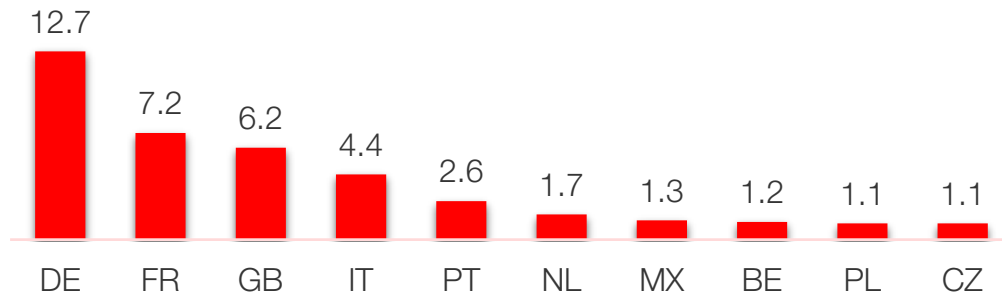
Foreign trade in the automotive industry

Catalan foreign trade in the automotive industry (€M)

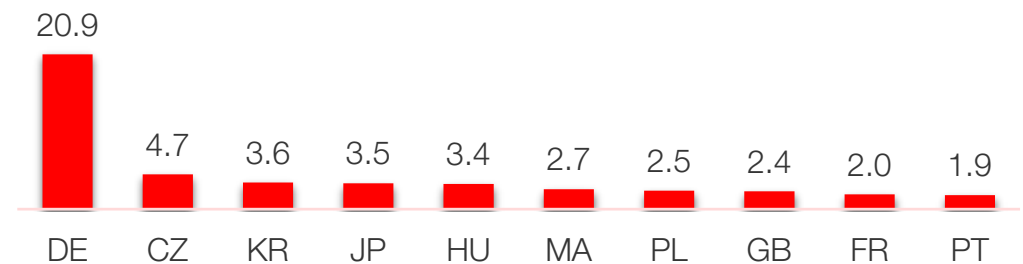


- In 2022, **23%** of automotive exports from the whole of Spain were Catalan and went up by 19% compared to 2021.
- Of all Catalan exports, **12%** came from the automotive industry.
- Between 2018 and 2022, **car production** was the subsector with the highest exports (**74.2%**), followed by the **production of components and other motor vehicle parts (24.3%)** and the **production of vehicle bodyworks (1.5%)**.
- Between 2018 and 2022, **Germany, France and the United Kingdom** were the three main destinations for Catalan exports.

Exports: main destinations (€M) (2018-2022)



Imports: countries of origin (€M) (2018-2022)



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

Logistics, the driving force behind the automotive sector in Catalonia

Industrial and consumer concentration



A sound and specialised industrial ecosystem made up of international companies that are highly open to the world, with quick access to a large market.

Strategic distribution capacity



An excellent geostrategic position allows efficient intercontinental connections with Asia and America, hence facilitating local distribution with southern Europe and northern Africa. Its distribution capacity also covers Spain, Portugal, Italy, France and Morocco within **24 to 48 hours**.

Integrated logistics hub



Catalonia is the **only region in southern Europe** to have a **port, airport, free-trade zone and logistics areas** with storage capacity in an area of just 12 km.

Logistics specialisation



Leading ecosystem with **specialised local and international logistics operators**, which provide value-added services to sectors such as textiles, chemicals, automotive, pharmaceuticals or e-commerce.

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



INFRASTRUCTURES

Land area (2021)	1,112.2 ha
Piers and moorings (2021)	23.183 km
Depth (2021)	Up to 16 m
Container traffic (2021)	3.5 M TEU
Total traffic (2021)	66.4 MT
Automotive (2021)	499,011 units

Leaders in vehicle traffic in the Mediterranean, with two specialised terminals (*Autoterminal* and *Setram*), vertical areas with a capacity for 24,000 units, 5 rail transport tracks, 5 ro-ro ramps and 1,200 linear metres of berthing space, plus new areas under development for car distribution.



INFRASTRUCTURES

Land area (2022)	565.09 ha
Logistics area (2021)	92 ha
Depth (2021)	Up to 19 m
Container traffic (2021)	54,758 TEU
Total traffic (2021)	31,275 MT
Automotive (2021)	137,086 units

The Port of Tarragona, together with Pasaia Port, is the **best rated port in Spain in terms of vehicle traffic**, according to the Spanish Association of Automobile and Truck Manufacturers (ANFAC).

98.75% of vehicle traffic corresponds to (registered and unregistered) passenger cars.



Source: ACCIÓ, based on the 2021 Port of Barcelona annual report, the 2021 Port of Tarragona annual report and the 2022 Port of Tarragona terminal map

FDI in the automotive sector in Catalonia 2018 – 2022

- **25 FDI projects** have been registered in Catalonia. These projects involve a total capital investment of **€2,341 M**. During these period, a total of **4,661 job** were created.
- Automotive FDI accounts for **2.6%** of total **projects**, **11.5%** of **capital investment** and **5.8%** of **jobs created in Catalonia**.
- **Catalonia** is the **leading** region in Spain in terms of **projects**, **capital** and **jobs** created in the automotive industry.
- Catalonia is the **6th region in Western Europe** in terms of number of **projects**, **2nd** in terms of **job creation** and **3rd** in **capital investment** in the automotive industry.
- In **2022**, a total of **6** projects were carried out, i.e. **5** projects **more** than in 2021.

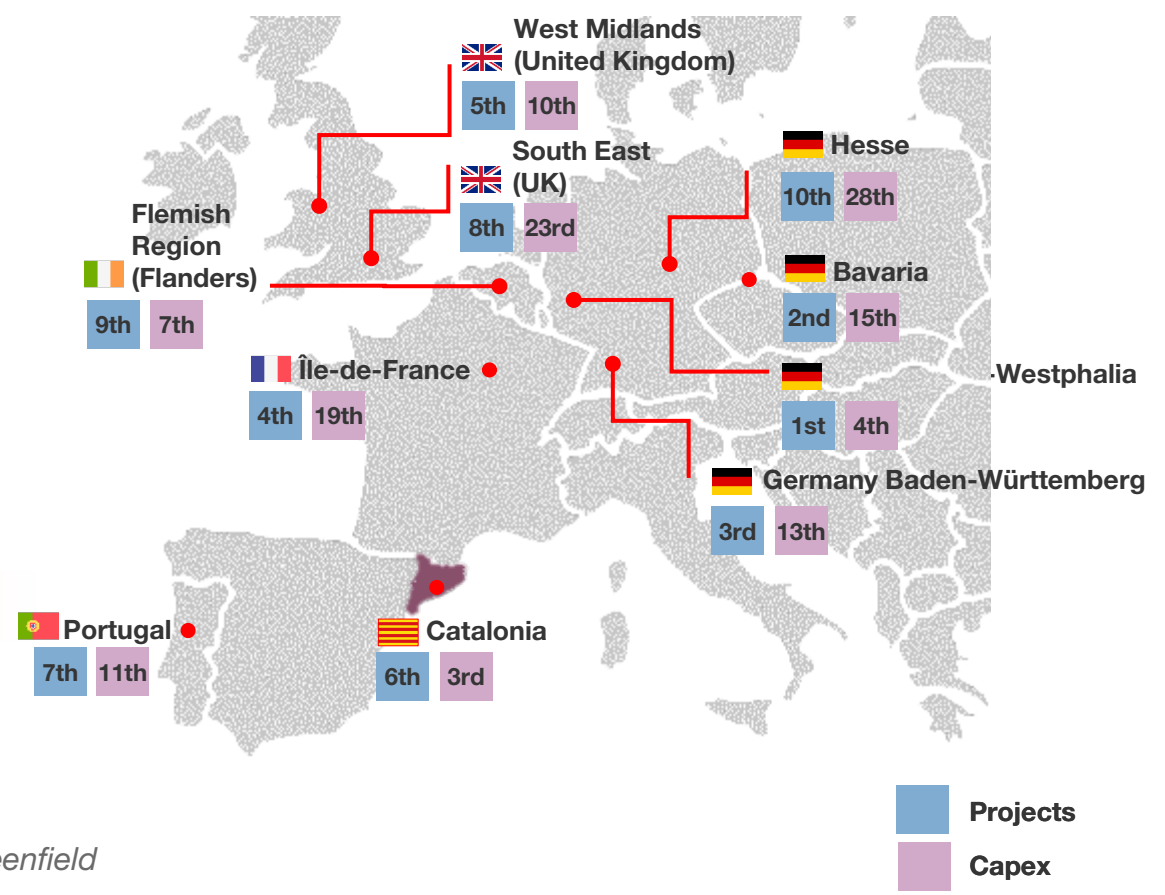
Companies that have invested in Catalonia over the 2018 – 2022 period.



Note: the data in this analysis is sourced from fDi Markets, which only includes greenfield projects. Reinvestments and acquisitions are not included.




FDI in the automotive sector in Western European regions by number of projects






Source: ACCIÓ based on fDi Markets, 2018 – 2022
CataloniaConnects



Companies that have installed *Digital Innovation Hubs* in Catalonia


Transportation and automotive



 Costa Cruceros opens a global customer service centre at the Mapfre Tower in Barcelona.


ACCIO  



 Alstom's 3D printing hub expands and opens new facilities.


ACCIO  



 Technica, automotive solutions engineering, opens an R&D centre in Sant Cugat.

ACCIO  

 Festo opens a global hub for digital sales in Hospitalet de Llobregat.


ACCIO  



 Porsche Digital opens new offices in Barcelona and will now have 50 employees.



ACCIO  




 The mobility platform invests in its technology centre in Barcelona.

ACCIO  

 The Emirates group Swvl installs an artificial intelligence (AI) digital hub in Sant Cugat del Vallès (Vallès Occidental).

ACCIO  

   New D-Hub electromobility project with the aim of producing electric vans as of 2024.












ACCIO   

Source: ACCIO, based on the compilation of investments announced in the press and international databases, fDi Markets, Orbis Zephyr and Orbis Crossborder

A large pool of qualified and specialised talent

In Catalonia there are several specialised studies related to the automotive industry– 4,637 graduates (2017 – 2021)

Catalan universities offer bachelor's and master's degrees in engineering in fields such as automotive, industrial organization, mechanics, electronics, design, automation, robotics, materials, ICT and others, with 956 graduates in 2021.

- 
 - Degree in Automotive Engineering (*Manresa Campus*)
 - Master's Degree in Automotive Engineering
- 
 - Degree in Automotive Engineering (*Granollers Campus*)
- 
 - Degree in Automotive Engineering (*EU of Sarrià*)
- 
 - Additive Manufacturing and Industry 4.0 Training Centre
 - Mechanical Engineering
- 
 - Degree in Industrial and Automatic Electronic Engineering
- 
 - Degree in Energy and Sustainability Engineering/Mechanical Engineering (concurrently)
- 
 - Master's Degree in Electric Vehicle Technologies
- 
 - Mechanical Engineering
- 


 - Master's Degree of Motorsports and e-Racing

Specialized professional training

 **Campus FPCAT-UPC**
de la Mobilitat Sostenible
(Martorell)



The FPCAT-UPC Sustainable Mobility Campus (Martorell) is a hub for training, innovation and creation around the most advanced mobility. Conceived as a knowledge space connected to the UPC, the Campus is a training and innovation space for the transformation of the mobility industry, especially in emerging areas such as autonomous and electric vehicles, and innovation in the field of mobility. The current training offer of the Campus includes professional training courses for employment and continuing education programs (masters and postgraduates) for professionals and companies in the automotive and mobility sector. The initial professional training programs will be taught from the 2024-2025 academic year.

Source: ACCIÓ, based on the Ministry of Universities and Student Statistics.

3. Trends and opportunities in the automotive sector



22 international opportunities for Catalan automotive companies



Learn more about the opportunities:
[International business opportunities recommender](#)

Challenges of the sector in Catalonia



Transformation of the sector

- Develop the **connected vehicle**.
- Promote the development of an **autonomous vehicle**.
- Boost the **automotive Industry 4.0**.
- Use of **VR/AR** for vehicle design, testing and (online) sales.



New mobility

- The new mobility of **smart cities**.
- Development of **mobility as a service**.
- New types of **micromobility vehicles**.



Shortage

- The systemic crisis regarding **the scarcity of raw materials**.
- Boost **local production** of car components, hence increasing industrial sovereignty.



Rising energy costs

- Measures to **improve energy efficiency**.
- Measures to **renew transportation fleets** towards much more efficient vehicles and measures to encourage the rational use of means of transportation and the promotion of ridesharing.



e-commerce and last-mile logistics

- **Increase the efficiency and sustainability** of operations.
- Large **logistics areas and city warehouses** to ensure efficiency and quality.
- **Minimise negative externalities**.
- **Reduce the carbon footprint** of last-mile logistics.



Sustainability

- Agreement for **climate neutrality by 2050**.
- Implementation of **LEZs** (Low Emission Zones) in cities.
- Raise public **awareness** on the importance of sustainable mobility.
- Replacement of the internal combustion engine vehicle by the **sustainable vehicle. Need for infrastructures and technological improvements**.






Sustainable logistics




- Foster the ecosystem of local suppliers.
- The use of biofuel for professional transport vehicles.
- Commitment to rail transport versus road transport, both with regard to finished vehicles and components.

Business opportunities in the value chain in Catalonia

Industry and manufacturing

- 
Manufacturing of components and parts: Catalonia is one of the leading vehicle manufacturing regions in Europe and boasts a strong presence of companies and centres in the automotive industry.
- 
The vehicle of the future: technical and research centres, organisations and professionals from all over the world make Catalonia the best location for developing more energy-efficient vehicles.
- 
The perfect location for an automotive battery operations centre: Catalonia's powerful industrial ecosystem and its sphere of influence facilitate suppliers' access to knowledge, technology and services to carry out manufacturing and battery distribution.

R&D and innovation

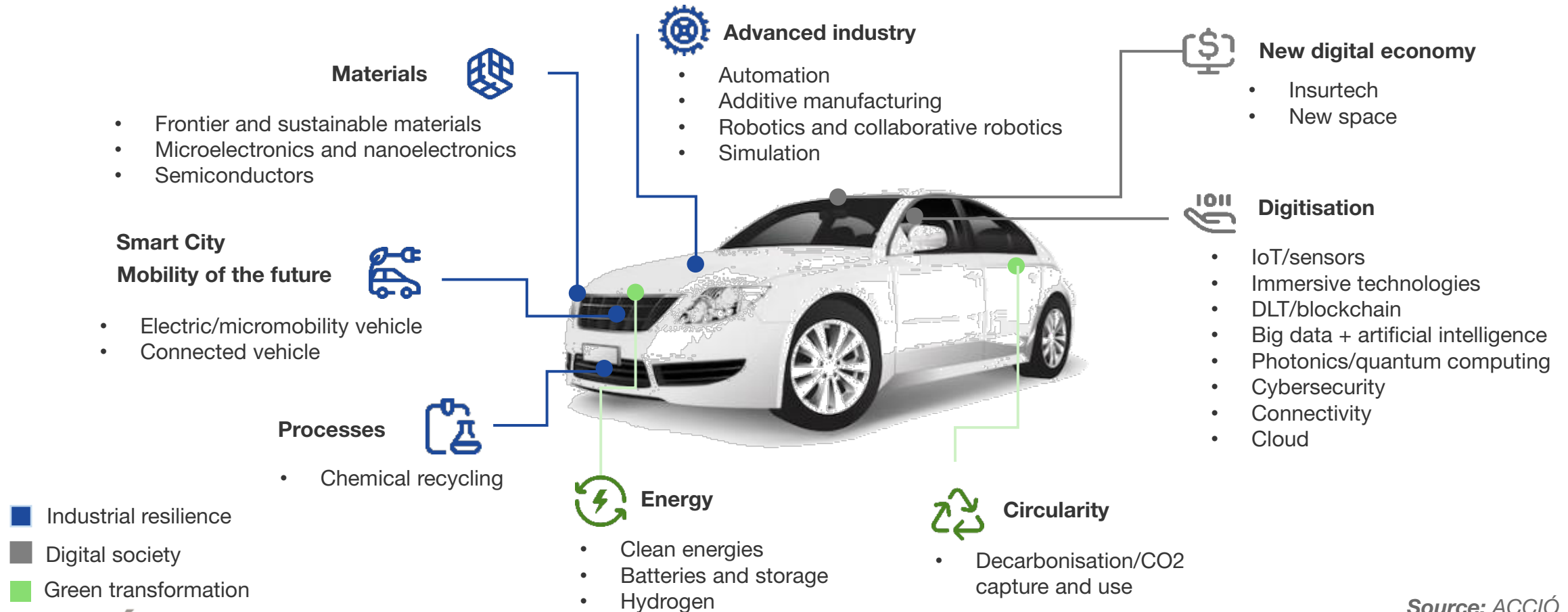
- 
Significant presence of R&D centres in the automotive industry: Catalonia's technological centres develop technologies and materials for the vehicle of the future and for different mobility options.
- 
Expansion of both established and future engineering thanks to R&D, innovation and new technologies in the automotive industry.
- 
Testing and approval: a wide range of centres and organisations for vehicle testing and approval.

Logistics

- 
Unmatched distribution capacity: Catalonia's excellent geostrategic position allows for efficient intercontinental connections with Asia and America, as well as managing rapid distribution in southern Europe, northern Africa and Turkey.
- 
A logistics network that supports the industry: the liberalisation of vehicle stevedoring and the reduction of port tariffs for cars have created business opportunities. The ports of Barcelona and Tarragona offer the most extensive logistics and transportation services in southern Europe.

Technologies impacting the automotive industry

Recent technological trends, such as artificial intelligence, IoT and robotics, are applied in the automotive sector. These technological advances enable car companies to produce self-driving cars and offer multiple solutions. Some of these solutions include technologies associated with industrial resilience, digital society or green transformation.



Investment projects

The South Korean **group Iljin** Materials will open a new factory for one of the basic and most advanced components of batteries for electric cars in *Mont-roig del Camp (Baix Camp)*. The investment will amount to close to 600 million euros and generate 500 new jobs.

2022-2024
Mont-roig del Camp



Ficosa opened in 2018 an e-Mobility Hub in Catalonia, a 10M€ pioneering center for electric mobility technology. This 1,200m² center pretends to be the company's worldwide hub for electro-mobility solutions. The e-Mobility Hub's goal is to become a model laboratory worldwide for the development of electric mobility technologies.

2018
Viladecavalls



The German company in the automotive sector, **Technica Engineering**, created 35 jobs at its R&D center in *Sant Cugat*. The technological company, specialized in the development of software and hardware for internal communications of vehicles, was established in Catalonia in 2019 with only two workers and has since maintained stable growth. The German firm works for research projects in the automotive field for suppliers of vehicle manufacturers seeking to incorporate new technologies in this area. According to its CEO, "the decision to open a center in Catalonia is based on the fact that it is a great pole of highly qualified talent, with very powerful and diverse profiles that are difficult to find in other European ecosystems".

2019
Sant Cugat



Goodman, the Australian logistics group, has won the tender for the lease of the land of the former Nissan plant for a period of fifty years and with a minimum initial investment of 100 million euros. This land will be subleased to the D-Hub electromobility project, led by the Catalan companies QEV and Btech, with the aim of producing electric vans as of 2024. D-Hub plans to hire some 1,250 workers who have been affected by the closure of the Nissan plant and invest 300 million euros in the first three years of operation. Although most of the site will be used by D-Hub, Goodman's logistics centre will be located there as well. Furthermore, the Silence plant and Nissan's technical centre, which still remain there, will also share this space.

2023
Free-Trade Zone



Seat opened a battery design and testing centre in *Martorell*, **Volkswagen's** first centre in southern Europe, making Spain the fourth country with facilities of this kind. It involved an investment of over 7 million euros in a 1,500 square metre building where the different battery models can be tested for electric and hybrid cars. The centre employed 25 Seat workers specialised in R&D.

2021
Martorell



German multinational **Freudenberg** invests 10 million euros to build a new plant for the production of automotive components.

2022
Parets del Vallès



Thanks!

Passeig de Gràcia, 129
08008 Barcelona

accio.gencat.cat
catalonia.com

 @accio_cat

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More information about the sector and related news:

<https://catalonia.com/key-industries-technologies/mobility-transportation/automotive>

