

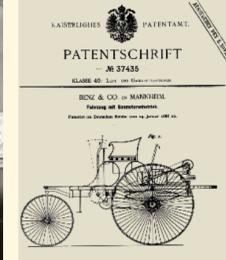
The emergence of an industry

The automotive industry has been more efficient than other sectors in addressing the economic crises experienced since the start of the second industrial revolution. Companies which have been able to retain optimal scaling strategies and empathy for new technology have become stronger and once again drawn in countless economic and social activities.

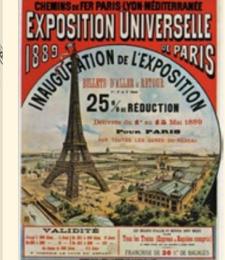


1860-1900: from the horse to the combustion engine

The age of the automobile began. There were still no large companies and engines were designed by engineers and scientists in workshops. These were the years of technological inventions and practical solutions, times of fierce competition between steam-power enthusiasts and advocates of the internal combustion engine. The guidelines were set by carriages and steam technology. Noisy machines started driving around towns and



Benz automobile patent, 1886



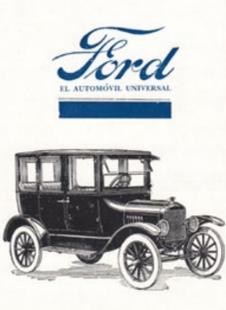
Poster for the Universal Exhibition of Paris, 1889. ACFB

cities but the shortage of roads, legislation and affordable power sources held back their emergence. Although the automotive industry at first opted for commercial and public transport, by the late 19th century private transport had become the priority. In this period automobile races began and the first big carmakers were established: Benz (1890), Peugeot (1896), Opel, Renault (1898), FIAT and Buick. In Barcelona the first make of Spanish car was created, La Cuadra (1899).

News about automobile pioneers
1769. Nicolas-Joseph Cugnot builds the first steam vehicle.
1839. Robert Anderson devises the first electric vehicle.
1886. Karl F. Benz creates the first vehicle with an internal combustion engine.
1889. At the Universal Exposition in Paris the car is presented to the public for the first time.

1900-1939: the forging of a new project

While industrial Europe was the technological nest which fostered the birth of the car, from the beginning of the 20th century the United States led the automobile industry. The new oil fields and chemical industry were significant, but the really determining factors were its large market, an exporting strategy and making cars affordable as a result of new production and work organisation systems such as the assembly line introduced by Ford in 1913, or Sloanism, which enabled General Motors to offer a range of very diverse models in the mid-1920s. Starting in 1920 countless manufacturers sprang up all over the place, yet three of them set the standard: Ford (1903) in the cars for all strategy, Rolls Royce (1906) as a luxury brand and Bugatti (1909) in sports cars. However, the economic crisis in 1929 slowed the industry down and this led to manufacturers merging or closing, adopting cost-cutting strategies and committing to large-scale markets.



Publicity for the Ford at the Motor Show, 1924. ACFB

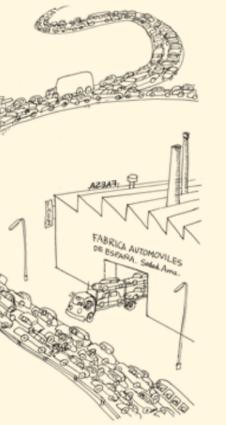


Oldsmobile advertisement, 1938. ACFB

1945-1973: a world on wheels

After the Second World War (1939-1945) the United States was the world's greatest economic power. Once the West had weathered the first post-war period, the automotive industry, which had been restructured following the 1929 crisis, went through a period of unprecedented expansion with the American market in full recovery, a willing Europe, major US investment and an emerging economic power in Japan. These were the years of large cars for the American middle-classes and

utility vehicles for Europeans and the Japanese. While the American market featured models such as the Ford Super Deluxe (1946) and the Cadillac Coupe DeVille (1955), the Citroën 2CV, Mini Austin Rover (1959), Trabant 601 (1960) and Renault 4 (1961) were being driven on Europe's roads. However, the 1973 oil crisis led to a global economic recession which had a special impact on the automotive industry. Although Spain had been part of the car boom, it joined it late on in the early 1960s due to the Civil War (1936-1939) and the Franco regime's economic autarchy policy.



Cartoon by Cesc Asensio from 1938. CCOO trade union at SEAT. AMSEAT

1974-1995: efficiency and robotization

The 1973 oil crisis brought the automotive industry to its knees. The boom in the preceding years and the emergence of markets in Socialist and Third World countries were slowing down. Production costs rose and financial returns fell. Sales dropped by 30% between 1979 and 1983. For manufacturers and users alike, cars were now an expensive product to make, buy and drive. The industry reacted by cutting production costs, offshoring factories, merging manufacturers and investing heavily in the search

for new markets and greater energy efficiency. Consequently carmakers tailored their production to market needs and designed more functional vehicles such as people carriers and compact sports cars. This adjustment and technological investment gave rise to automation in the industry's factories, especially in Japan and South Korea. We were on the threshold of the technological revolution of the early 21st century.



FOIM, 1968. ACFB

The roots of the automobile industry in Barcelona

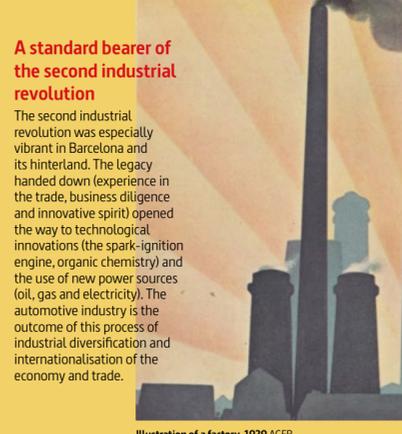


Illustration of a factory, 1929. ACFB

A standard bearer of the second industrial revolution

The second industrial revolution was especially vibrant in Barcelona and its hinterland. The legacy handed down (experience in the trade, business diligence and innovative spirit) opened the way to technological innovations (the spark-ignition engine, organic chemistry) and the use of new power sources (oil, gas and electricity). The automotive industry is the outcome of this process of industrial diversification and internationalisation of the economy and trade.



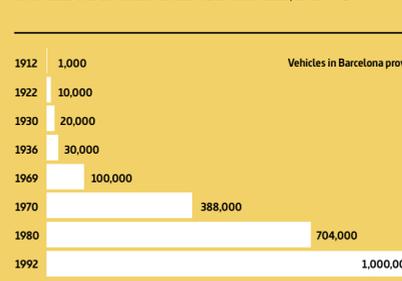
Share of the Hispano Suiza company, 1918

The automobile arrives

Right from the outset Barcelona was involved in developing and implementing the global automotive industry. Unlike other sectors in the economy, this industry was driven by local entrepreneurs and financiers. The shortage of oil and gas led to hydraulic power production and foreign capital had facilities for investing in strategic sectors such as chemicals. Furthermore, the city's excellent geographical location was reinforced by infrastructure works in roads, railways and its port. This effort paid off: Barcelona and its surroundings became established as a leading industrial district for automobiles.

Paradigm of modernity

In 1901 Pere Romeu i Borràs, owner of *Els Quatre Gats*, replaced the picture by his friend Ramon Casas on the walls of the premises showing the two of them on a tandem by another in which they are travelling by car at high speed. It was a sign of the new times. In this café, a favoured haunt of Catalan Art Nouveau artists, internal combustion engines were inspiring the future.



Museu d'Història de Barcelona
 Plaça del Rei, s/n. 08002 Barcelona
 Information and bookings: informaciomuhba@bcn.cat
 93 256 21 22
 barcelona.cat/museuhistoria
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AUTHOR Marià Hispano Vilaseca
REVISION Tomás Fernández de Sevilla
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 Cover image: illustration of the 6th Barcelona Trade Fair, 1933. ACFB
DESIGN, LAYOUT AND MAP: Carlos Ortega and Jaume Palau



1895
 In the United States the car magazine *The Horseless Age* is published. The appearance of automobiles marks the end of horse-based civilisation.
 Wikicommons

1904
 Writer and suffragette Emilia Pardo Bazán gets into a car to demand gender equality.
 Sant Feliu de Codines, c. 1920. MNAC. Sant Feliu de Codines

1917
 In the Mexican (1910) and Russian (1917) revolutions, vehicles carry ideas and combat.
 Children's drawing, Russia 1917. State Historical Museum of Russia

1914
 Films and cars become the paradigm of modernity. Charlie Chaplin devises the role of his classic character, a tramp wearing a hat, in the movie *Kid Auto Races* at Venice.

1925
 Political leaders and magnates use the car as a symbol of power.
 Rolls Royce Phantom (1925) in Barcelona (1929). Author: Bert. ACFB

1928
 The Yellow Manifesto, a surrealist statement signed by Salvador Dalí, Lluís Montanyà and Sebastià Gasch, mentions the Motor Show in one of its points.
 Golden Arrow automobile, 1929. ACFB

1934
 Taxis have become the symbol of cities. In Barcelona they have been black and yellow since 1934.
 Taxi of the David make. Author: Enfo/Wikicommons

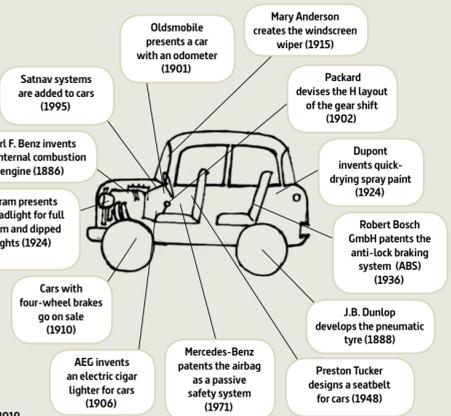
1934
 Taxis have become the symbol of cities. In Barcelona they have been black and yellow since 1934.
 Taxi of the David make. Author: Enfo/Wikicommons

1948
 Cars are seen as a private space and a beacon of freedom. Jack Kerouac begins writing his novel *On the Road*.
 Wikicommons

A cornerstone of the economy

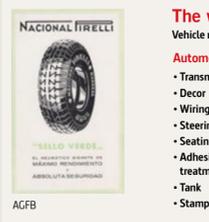
The automobile; the sum of components

The car as an industrial product is much more than just a vehicle with an engine and four wheels. It is made up of a large number of components and accessories, many of which are supplied by the sector's auxiliary industries.



The automotive sector and auxiliary industries

The automotive district in Barcelona was built up during the early 20th century and did not establish itself until the late sixties. After the Spanish Civil War and in spite of the shortages, the sector and its related industries forged a solid network of small businesses which over time were organised around the large end producers. The prolific history of its automotive district provided Barcelona with magnificent tools to build a powerful innovative cluster capable of providing companies established there with the competitive advantage needed to address the challenges of globalisation and connect to global markets and international production networks. Automotive industry participation figures at the Official International Trade Fair (Fira Oficial Internacional de Mostres, FOIM) of Barcelona in 1956 show the district's importance as a driving force in the economy: 18 vehicle manufacturers in Barcelona and its metropolitan area and 257 companies in the automotive auxiliary industry. Furthermore, the latter were joined by numerous firms from other sectors working indirectly with the automotive industry such as chemicals, textiles, machinery and metal and electrical equipment and plastics.



The vitality of the automotive sector's auxiliary industry

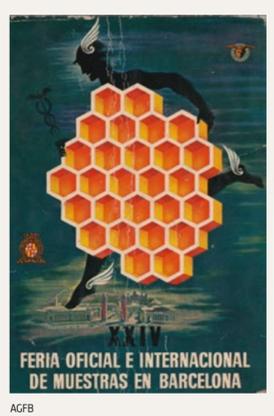
Vehicle manufacturers and auxiliary industry companies at the FOIM in 1956 (Barcelona and metropolitan area)

- Automotive auxiliary industry**
- Transmissions
 - Decor
 - Wiring
 - Steering column
 - Seating
 - Adhesives treatment
 - Tank
 - Stamping

257 companies at the FOIM. Components and accessories industries

- Automotive industry companies**
- Autonacional, S.A. (Biscuter)
 - Construcciones Metálicas Clúa
 - David Autos
 - Industrias Kapi
 - SEAT
 - Empresa Nacional de Autocamiones, S.A. (ENASA)
 - Nacional Motor, S.A. (Derbi)
 - Motor Ibérica, S.A. (Myma)
 - Construcciones Metálicas Alfaro
 - Industrias Dami
 - Industrias Narcla
 - Maquinaria Cinematográfica, S.A. (OSSA)
 - Motocicletas EVYCSA
 - Motorhispania
 - Motores y Motores, S.A. (Myma)
 - Permanyer, S.A. (Montesa)
 - Indústria Ciclista Solà (Ducson)
 - Viuda de Antonio Sitjes

18 companies at the FOIM. Automotive industry manufacturers



The automotive industry in Barcelona: a strategic sector

Since the late 19th century Barcelona had been involved in the emergence of the automobile industry as it embraced modernity. Business, technological and cultural resources were all brought into play. However, the Spanish Civil War (1936-1939) cut short these dreams and efforts. Yet in spite of the post-war period, political repression and an autarchic economic policy, Barcelona retained a network of small and medium-sized metalworking enterprises which enabled the automobile industry to bounce back when the economy was liberalised in 1959. Even though it was the establishment of SEAT (1950) that gave the automotive industrial district a sufficient size to consolidate it, problems then re-emerged in the mid-1970s as a result of the oil crisis and the industry's internationalisation. Harsh industrial restructuring, union input and the purchase of loss-making domestic carmakers by multinationals meant the automobile industry was once more in a position to compete in a global and technological economy. In the early 21st century, the automotive sector is once again one of the economic cornerstones of Barcelona and its metropolitan area: it attracts foreign investment, boasts technological capacity and invests in scientific development while at the same time it is part of the global automotive industries network.

1880-1900 Visionaries

In spite of raw materials shortages, Barcelona took part in forging international automotive technology and industry right from the outset.



Francesc Bonet, Barcelona 1890

1901-1935 The golden age

It was the golden age of the automobile industry. Manufacturers such as Hispano Suiza, Elizalde and David built high quality vehicles, although only the American car-makers in Barcelona (Ford and General Motors) had assembly line facilities. The industry's weakness was down to a range of factors including lack of technology, the low internal demand and the lack of popular automobile models were some of the causes of the sector's weakness. In 1927 Barcelona held 68% of automobile industry capital in Spain.



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1936-1959 Motorcycles and micromotors

The Spanish Civil War interrupted the automobile industry's upward swing. In the autarchic post-war economy and lacking resources, the sector opted to build trucks and vans along with motorcycles and micromotors. The establishment of SEAT in 1950 opened up fresh prospects.



Biscuter, 1967. MMX, Sant Felu de Codines

1960-1973 The streets fill with cars

When the Franco government approved the Economic Stabilisation Plan in 1959, liberal

policies brought about improvements in industrial productivity and people's standard of living. SEAT, a FIAT subsidiary, was the best example of the country's economic development and its Seat 600 was the car of the working-classes. SEAT, FASA-Renault (1951) and Citroën Hispania (1958) gave Spain wheels.



Renault 4CV, 1957. AMHV

1974-1986 Towards an international market

The removal of protectionist barriers as part of liberal policies enabled other foreign manufacturers to enter the market. Factories such as the ones opened by Ford in 1976 and Opel in 1982 were exemplary facilities in an industry that was internationalising its markets. When Spain joined the European Economic Community, the whole of its industry including Barcelona's automotive industry was impacted by the implementation of a tough restructuring plan.



Ford stand, International Motor Show of Barcelona, 1976. ACFB

1987-2000 A technological future

After the 1973 oil crisis and the globalisation of the automobile market, the industry opted for export strategies. R&D investment and improved productivity through company automation. The closing down of some manufacturers and others joining multinational groups made restructuring easier; SEAT was taken over by the Volkswagen Group (1986), Motor Ibérica joined Nissan (1987) and Pegaso became part of Iveco (1990).



Installations of SEAT in Martorell, 1995. AMSEAT

The main figures in the story

Every story has its main figures. Barcelona's automobile industry and culture have been built by men and women over the years. Anchored in a solid alliance, visionaries, sportspeople, scientists and entrepreneurs made it possible for the industry to emerge. They were entrepreneurs including Emilio de la Cuadra, Francesc Batlló and the Armangué brothers, engineers like Vilfred Ricart and Marc Birkigt, and racing drivers such



Demonstration by SEAT workers, 1977. PSUC, ANC

as Paco Godia. Likewise the automobile industry was a pioneer in gender equality. Women fought to be able to drive and also as workers in an industry where the labour movement was powerful in its large factories and often took a leading social and political role. These men and women are the start and the source of an economic activity and a culture which after 150 years is still very much alive and preserves for Barcelona one of automobile industry's capitals in southern Europe.

The factory: from Eixample to the Zona Franca

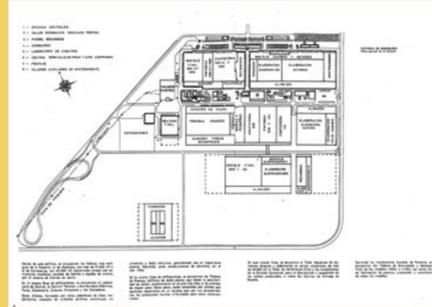
In its beginnings the automobile industry in Barcelona was set up in small mechanical workshops which would gradually expand by taking advantage of adjacent facilities or buildings. These workshops and factories were sited at first in the Eixample in Barcelona and then moved on to the industrial districts in Sants and Sant Martí. Elizalde set up its large factory on Passeig de Sant Joan while in 1906 Hispano Suiza moved its fac-



SEAT clocking-in clock, c. 1958. Arxiu Francesc Prieto

ilities from Passeig de Sant Joan to the Sagrera district. These are factory areas designed as large workshops which were still far from assembly line production. Meanwhile the American firms Ford and General Motors streamlined their operations to achieve greater productivity. Starting in the 1920s, a series of auxiliary industries forged an industrial district which would encompass the Barcelona metropolitan area. The other great

industrial area to be established during the first half of the 20th century was Barcelona's Zona Franca. In 1953 SEAT opened a modern factory next to the port and in the automotive sector industrial district. Other companies also set up there including Motor Ibérica and OSSA which made it into an automobile industry hub. Since the late 20th century and aside from the industry use of the region, new communication technology stands out as the essential tool for production and a market that are global.



Ground plan of the SEAT factory, 1968. Arxiu Francesc Prieto

Timeline: from the Universal Exposition to the 21st century

1888. The Universal Exhibition is the origin of modern Barcelona. 1



Plan of the Universal Exhibition Barcelona 1888. ACFB

1931. Barcelona City Council organises traffic and draws up traffic regulations.

1932. General Motors sets up in Barcelona.

The Montjuïc Circuit opens. 12

1934. Black and yellow are chosen as the colours of Barcelona's taxis.

1936. On the outbreak of the Spanish Civil War the automobile factories are taken over and turned over to war production.

1937. Automobile industry factories are hit in air raids by Franco's air force.

1939. At the end of the Civil War companies are returned to their original owners.

1940. Key role for the Catalan motorcycle industry in the post-war period. OSSA, Montesa, Bultaco, Derbi and Mototrans are founded.

1941. The Spanish National Institute of Industry (INI) is founded and restructures the automobile industry.

1946. The Barcelona Trade Fair once again displays foreign vehicles.

1950. SEAT is established.

1889. The first motorcycle, car and bicycle race on the Peninsula is held in Barcelona. 7

1899. Francesc Bonet i Dalmau builds the first Spanish vehicle with a spark-ignition engine.

1899. Emilio de la Cuadra sets up the first Spanish factory making cars in Barcelona.

1899. The magazine *El Automovilismo Ilustrado* comes out in Barcelona.

1906. The Barcelona Automobile Club is founded. In 1910 it was renamed the Royal Automobile Club of Catalonia (RACC).

1907. The first vehicle registered in Barcelona (B-1) belongs to Ruperto Garriga-Nogués and is a Berliet.

1909. Economic Stabilisation Plan in Spain. The country emerges from economic autarchy.

1961. The city still has 1,341 animal-drawn carts registered.

1912. Martí Vidal Pedrola is the first self-employed taxi driver in Barcelona. 4

1914. The 1st Tibidabo Cup is held on 24 May. 5

1916. Lluís and Frederic Armangué make the Barcelona-Madrid-Barcelona journey in just over 28 hours.

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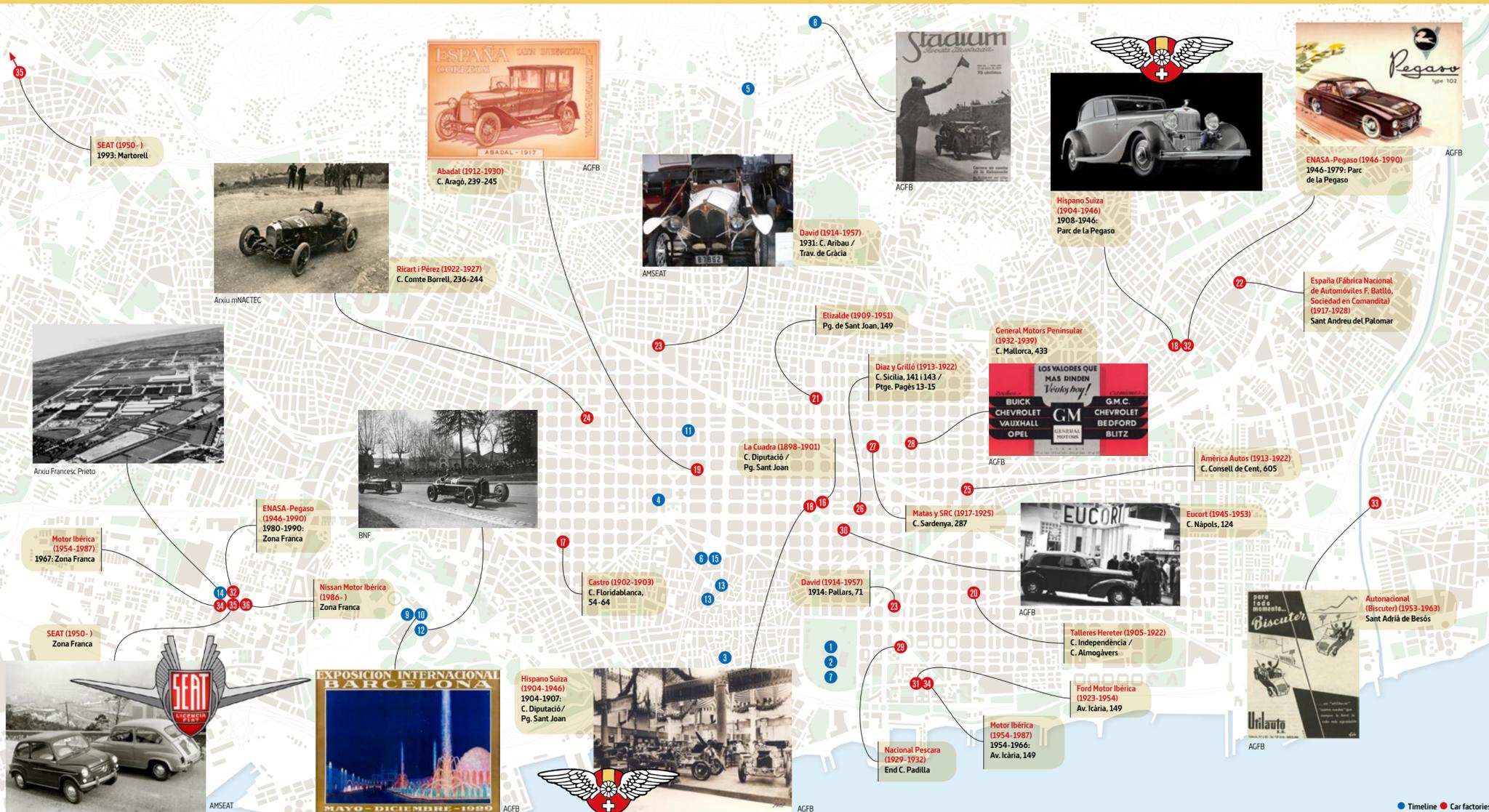
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1919-2019 one hundred years of the Barcelona Motor Show. Industry, trade and the general public



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Since the commercial revolution in the late 19th century, rising consumption of goods has been accompanied by new communication platforms such as fairs, advertising and trade journalism. Ever since the Barcelona Motor Show began in 1919 it has been the main showcase in the city for understanding the industrial, technological and design aspects of cars in a venue for engagement between industry, trade and the general public's fondness for motoring.



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Poster for the 1st Barcelona Motor Show. ACFB

1921. The 1st Spanish Motorsport Championship is held at the Vilafranca del Penedès circuit.

1922. The Rabassada Ascent Race is held for the first time. 8

The Barcelona Motor Show moves to Montjuïc. 9

1923. American company Ford sets up in Barcelona.

The Terramar International Autodrome opens in Sant Pere de Ribes.

1927. The Barcelona automotive industrial district is established.

1929. Barcelona International Exposition: futuristic design cars and sports cars amaze visitors. 10

The Cars and Roads Board, which oversees the quality of roads, is founded.

The first traffic light is installed in Barcelona at the junction of Balmes and Provença streets. 11

1921. The rise in the oil price leads to a global energy crisis.

1924. Carrer Portaferrissa and Avinguda Portal de l'Àngel are pedestrianised. 13

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