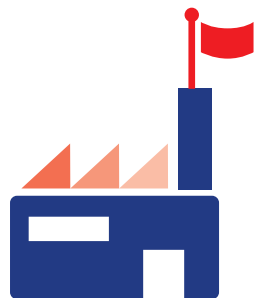


TGV
HIGH-SPEED TRAINS:
CRUISING SPEED OF MORE
THAN
300 KM/H
(185 MPH)

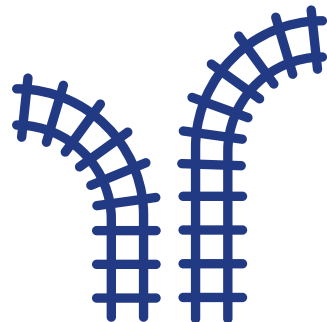
(SNCF)

ACCESS TO A MARKET OF
67
MILLION CONSUMERS
AND A GATEWAY TO EMEA MARKETS
(INSEE)



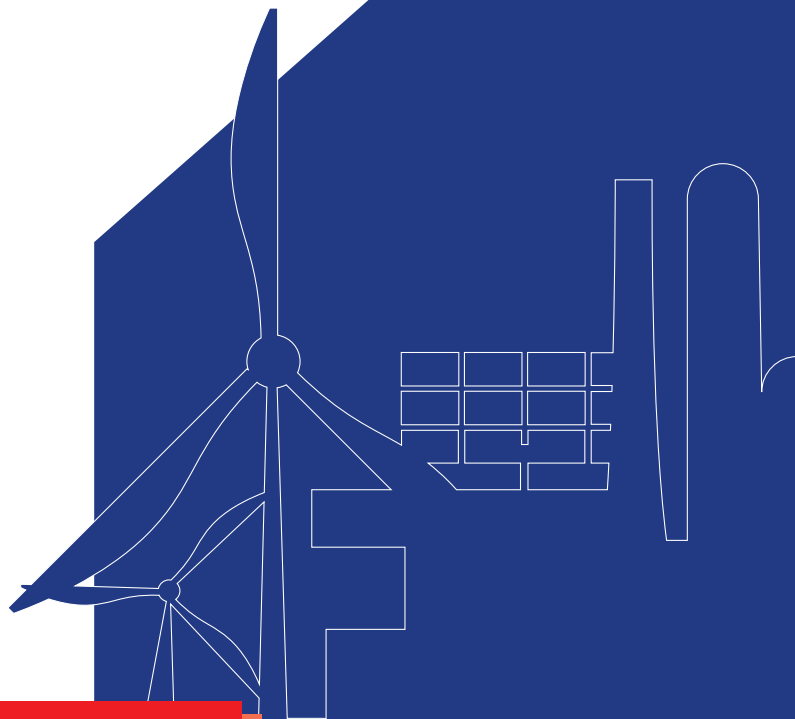
#1
HOST COUNTRY FOR
FOREIGN INVESTMENT
PROJECTS

(EY)



EUROPE'S
#2
RAIL NETWORK

(EUROSTAT)



KEY INFO IN

10
POINTS

**FRENCH RAIL
EXCELLENCE**

HIGH-TECH INDUSTRIES

APRIL 2019

BUSINESS FRANCE

77, boulevard Saint-Jacques
75680 Paris Cedex 14
Tel.: +33 1 40 73 30 00



1 WORLD-CLASS INDUSTRY

In 2017, the French rail industry recorded revenues of €3.8 billion, of which 26% was in exports. Its main sub-sectors are rolling stock construction (€2 billion in sales), infrastructure (€563 million), equipment (€545 million), and signaling (€609 million).

2 EUROPE'S #2 RAIL NETWORK

With 28,364 km (17,625 miles) of railway lines in 2017, France's rail network is the second largest in Europe, after Germany (41,300 km / 25,660 miles) (Eurostat, 2019). France also has 1,660 km of metro, RER and tram lines.

3 #1 FORM OF PUBLIC TRANSPORT

Train, metro and RER travel are the most popular forms of domestic public transport in France (10.8%), ahead of buses and coaches (6.6%). France also has 24 tramway networks, with sector expertise that is going global. French companies are currently working on 30% of the world's 250 new or modernized tramway networks. (Fer de France)

4 A STRONG REGIONAL PRESENCE

The Hauts de France region has proven particularly attractive for the rail industry, with it being home to the Association of Railway Industries, the I-Trans Center, the Transalley technopole, and Railenium, an institute for technological research which brings together nine research centers, 18 companies and two network managers. What's more, every two years Lille holds the International Exhibition of Rail Technology (SIFER).

5 FRANCE INVESTS IN ITS RAILWAYS

With €5.2 billion invested in 2016, France is ranked second in Europe for investment in rail transport infrastructure after the United Kingdom (€13.6 billion). France also invested €3.3 billion in 2016 in the maintenance of existing infrastructures (OECD, 2019). Meanwhile, in Ile de France, the Grand Paris Express project plans to create an extra 200 km (125 miles) of metro tracks and 57 new stations.

6 TGV OF THE FUTURE: FAST, ECONOMICAL AND CONNECTED

With a cruising speed of 300 km/h (186 mph) and a record speed of 574.8 km/h (357 mph), TGV high-speed trains connect France's major cities in record time: Paris to Marseille in 3 hrs 10 mins, Paris to Lyon in 1 hr 57 mins, and as of 2017, Paris to Bordeaux in 2 hrs 4 mins (SNCF). Together, Alstom and SNCF are developing the fifth generation of French high-speed trains. Driverless trains, to be operated by computers, are expected to be rolled out across France by 2025.

7 FRENCH RAILWAY EXPERTISE GOES GLOBAL

In 2018, Keolis, a subsidiary of French state rail operator SNCF and present in 16 countries, inaugurated a new section of the Hyderabad automatic metro and received the contract for the operation and maintenance of the future Songjiang metro in Shanghai. What's more, Morocco's first high-speed rail service, for which Alstom built 12 trains, was inaugurated in November and the world's first hydrogen-powered trains, which were built and designed by Alstom, have now entered passenger service in Lower Saxony in Germany.

8 RATP AND SNCF JOIN FORCES WITH SAUDI ARABIA

In September 2018, RATP announced that it had been awarded a 12-year operations and maintenance contract, worth an estimated €2 billion, for two metro lines currently under construction in the Saudi capital Riyadh. For this particular contract, RATP has teamed up with Saudi partner, SAPTO. In 2016, both companies had already been chosen to operate and maintain the city's bus network.

9 HYPERLOOP COMES TO FRANCE

In 2016, SNCF took part in an US\$80 million fundraising effort by Hyperloop Transportation Technologies (HTT), which is currently developing a train system to bring airplane speeds to the ground. In 2017, the California startup chose Toulouse as the location for its European R&D center meanwhile Canadian startup Transpod decided to open an R&D center in Limoges. The aim is to build trains reaching speeds of up to 1,000 km/h (620 mph), which may one day cut Paris to Lyon journey times to just 20 minutes.

10 SMART TRANSPORT

Smart rail transport relies, among other things, on connected services, and big data, which enables preventive maintenance for infrastructure, as well as paperless transactions and systems to support network operations. In 2018, Vape Rail received the innovation prize at the French Rail Awards for its digital ecosystem that enables the operator to visualize, analyze and then share data collected by sensors on the tracks.