



RÉPUBLIQUE  
FRANÇAISE

*Liberté  
Égalité  
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FRANCE  
ATTRACTIVENESS  
**SCORE  
BOARD**

**2021**

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FRANCE  
ATTRACTIVENESS  
**Scoreboard**

*2021*





**Editorial**

Bruno LE MAIRE  
Franck RIESTER

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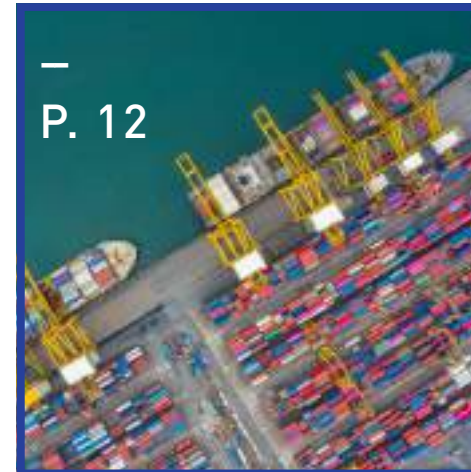
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Pascal CAGNI  
Christophe LECOURTIER

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# France Attractiveness Scoreboard 2021

## EDITORIAL



**BRUNO LE MAIRE**  
MINISTER FOR THE ECONOMY,  
FINANCE AND THE RECOVERY



**FRANCK RIESTER**  
MINISTER DELEGATE  
FOR FOREIGN TRADE  
AND ECONOMIC  
ATTRACTIVENESS

This new edition of the France Attractiveness Scoreboard testifies to the strength in 2021 of the French economy's fundamentals and its resilience.

The facts are clear: despite the Covid-19 crisis, and thanks to the economic and health strategies implemented by President Emmanuel Macron and the French government, France remains increasingly attractive to international businesses.

In 2019 and 2020, France was the number one European destination for international investment, ahead of both Germany and the United Kingdom. France is the leader in Europe for investments in manufacturing and R&D. In some sectors, there have been record-breaking numbers of projects; the healthcare sector saw investments in 2020 increase by more than 30% in Business France's 2020 Annual Report on Foreign Investment in France. More than two-thirds of investments recorded were expansion projects: the businesses setting up in France believe in our key strengths and have not only decided to stay in France, but to expand here, too.

The year 2021 is set to confirm the strength of French attractiveness: the Business France and French Treasury teams working in our embassies have seen a very clear upturn in the number of foreign businesses thinking about investing in France – up by 18% compared with 2020.

We must thank our businesses and their employees for France's economic resilience and rebound. These businesses reflect our core economic strengths and the responsiveness of the public authorities. France retains a high market potential thanks to its central position in Europe, and its proximity to the four other largest European markets which, together with France, represent more than 320 million consumers. This is thanks to the European Union.

France is also the most attractive country in Europe owing to its status as an innovation nation: we are one of the world's leading countries for transport and communication infrastructure; training and labor productivity; entrepreneurial and creative dynamism; R&D expenditure and the capacity for innovation; as well as for financial services, particularly in private equity and venture capital, two essential sectors for the funding of businesses specializing in new technology. France continues to improve in areas such as corporate taxation and the administrative and regulatory environment, in both of which, as we know, investors have high expectations. Furthermore, France benefits from its pioneering position as an environmentally and socially responsible economy.

We must therefore look beyond the crisis. One of the advantages of this Scoreboard is that it enables us to take a step back to consider the long term and distinguish the sustainable from the immediate.

In addition to the changes which affect our daily life, there are strong trends and slow changes. Together, they are what determines attractiveness. This is therefore a good reflection of the state of France's economic health. Since it is doing well, as shown in this 2021 edition, which we recommend that you read, we can be optimistic about the future outlook for our economy.



**PASCAL CAGNI**  
CHAIRMAN OF  
BUSINESS FRANCE,  
AMBASSADOR  
FOR INTERNATIONAL  
INVESTMENT



**CHRISTOPHE  
LECOURTIER**  
CEO OF BUSINESS FRANCE

Despite the pandemic, France remains as attractive as ever: this is the key message from the France Attractiveness Scoreboard 2021. “Fluctuat nec mergitur” is the French capital’s motto: France is the ship that has weathered the Covid-19 storm; far from sinking, it has strengthened its hull and sails, and is now cutting through the waves at high speed. France has consolidated its strengths and is experiencing exceptional economic growth.

In 2020, the year of the worst post-war economic crisis, France remained comparatively very attractive to foreign investors. While global investment flows have fallen by nearly 40%, the number of investments in France has remained within the average of the previous five years and the number of jobs created or maintained has even exceeded it.

France remains the leading European destination for international investment, according to the EY

# FOREWORD

PASCAL CAGNI AND  
CHRISTOPHE LECOURTIER

Attractiveness Survey, particularly in key areas of industry and R&D. This resilience can be explained in large part by the strength of France’s attractiveness factors.

The French market is robust, due in particular to a more favorable demography than in neighboring European countries. The sudden contraction of economic activity, linked to the initial shock of the pandemic, was smaller than in Italy, the United Kingdom and Spain. Economic activity resumed vigorously in the second half of 2020, before accelerating in 2021 to a level of growth not seen for 50 years, which is estimated to be nearly 7%.

This recovery can be seen in exports, with one-third of subsidiaries of foreign businesses contributing to this sector. After the sharp fall recorded from March to May 2020, French exports started to increase again in June, at a steady pace. In the first half of 2021, they had almost returned to their pre-crisis level for goods. The number of exporting businesses remained stable over the year, before returning to its previous growth to reach a record 135,600 at the start of 2021, up 10,000 on 2018.

Labor and tax costs have become more competitive. The highly skilled

French workforce has one of the highest hourly productivity rates in the world, higher than that of Germany and the United Kingdom. While per capita productivity fell in 2020, due to short-time working imposed by a strict lockdown, hourly productivity for its part increased slightly.

From 2015 until the end of the first half of 2021, France was, among the large euro zone economies, the one country where cost competitiveness had improved the most. Taxation is also improving: the corporate tax rate, reduced to 28% in 2020, is now lower than that of Germany. Furthermore, France boasts the best tax treatment of R&D expenditure among OECD countries.

France’s dynamic growth is supported by the considerable modernization of the administrative and regulatory environment. Reflecting this, France gained seven places in terms of public sector efficiency in the IMD World Competitiveness Yearbook 2021. The creation of an efficient e-government system facilitates the procedures of private key players and enables them to be better supported. France is notably one of the countries with the fewest number of days required to start a business.

Entrepreneurship is also booming: the number of businesses – more than 900,000 – created over the first eleven months of 2021 exceeded the number of creations observed over the whole of 2020, a year which saw record figures.

Business activity is also supported by a set of factors that attest to French quality of life, the excellence of which is recognized worldwide, whether it is the efficiency of the health system, the high level of social protection, the wide range of childcare services, the scale of public spending on education or the low-carbon economy, which is one of the best in Europe.

The quality of France’s structural assets helps to explain the resilience and the rebound in the attractiveness of the French economy in 2020. Despite the headwinds fueled by the resurgence of the epidemic, France is resolutely on course to continue improving its attractiveness and continues to take the lead. The twelfth edition of the France Attractiveness Scoreboard clearly reflects this, through a comparative analysis of the key factors contributing to economic strength, based on the most accredited international indicators.

We hope you enjoy reading the report.



# METHODOLOGICAL APPROACH

Economic attractiveness can be defined as the capacity to attract new business and mobile factors of production (capital, skilled labor, etc.) to a specific destination. This capacity is related to a wide range of macroeconomic criteria.

By compiling a vast array of economic data, but without resorting to aggregate indicators, our aim is to provide an objective view of France's attractiveness as an investment location.

We identified nine key indicators of attractiveness (via 120 criteria) affecting where multinational firms decide to set up, including market size, education and human capital, research and innovation, transport and communication infrastructure, administrative and regulatory environments, capital and employment costs (including taxation, which plays a significant role), as well as quality of life and green growth.

The countries compared with France in this report are:

## EUROPEAN:

- Austria
- Belgium
- Finland
- France
- Germany
- Ireland
- Italy
- Netherlands
- Poland
- Spain
- Sweden
- United Kingdom

## NON-EUROPEAN:

- United States
- Japan

These countries play a major role in international investment and have similar skill sets and/or substantial economic relations with France. Poland was chosen as an example of a country from central and Eastern Europe having comparatively recently joined the European Union. The relative performances of these 14 countries are also compared with the EU average, while for some key indicators a comparison is made with other countries from around the world.

# Main results

In a competitive international context, it is important to be able to assess a country's attractiveness and compare it with that of its main competitors. Attractiveness is key for economies to remain strong. Foreign direct investment is a driver of economic growth: foreign-owned businesses employ more than two million people in France. Attractiveness, however, is a complex and multi-faceted concept that cannot be summed up by a single composite index. The France Attractiveness Scoreboard aims to illustrate this by bringing together a wide range of economic indicators that offer an objective diagnosis of France's attractiveness.

**France remained a highly attractive economy in 2020**, despite the unprecedented global health crisis. Proof of this is the fact that France was, for the second year in a row, the number one destination for international investment in Europe, ahead of both the United Kingdom and Germany. This twelfth edition of the France Attractiveness Scoreboard reveals that France boasts a number of key strengths.

**France is at the heart of Europe.** The country's location is one of its major assets. It has direct access to the four other largest markets on the European continent: Germany, the United Kingdom, Italy and Spain. France also boasts quality infrastructure, with Paris Charles de Gaulle airport currently Europe's leading airport in terms of cargo.

**France is definitely a forward-looking country.** It draws on a wide range of R&D support mechanisms, with the highest rate of state support for R&D among OECD countries. In 2020, France was the most attractive country in Europe for R&D investments. It stands out in particular in strategic sectors, such as health and renewable energy. France is Europe's second largest producer of primary energy drawn from renewable sources and boasts one of Europe's best low-carbon economies.

**France is a competitive economy.** Its competitiveness has improved significantly over the past decade; very high productivity associated with measured changes in labor costs have enabled France to improve its competitiveness compared with other European economies. Furthermore,

setting up a business in France is easy, taking just four days to complete, a much quicker process than that in most of its European competitors.

**France offers a unique quality of life.** Its publicly funded system offers a range of quality services, particularly in terms of education and healthcare, while supporting the standard of living of households. France can count itself among the best countries in the world in terms of accessibility to healthcare and time devoted to leisure and to oneself.

The France Attractiveness Scoreboard also highlights indicators for which progress is still needed, particularly on issues related to taxation.

FRANCE  
ATTRACTIVENESS

# CHAPTER 1

## OUTCOME INDICATORS

*Foreign direct investment*

→ 14

*Strategic activities*

→ 18

*Contribution of foreign subsidiaries to the French economy*

→ 24

*Foreign skills*

→ 28



# 1.1 FOREIGN DIRECT INVESTMENT

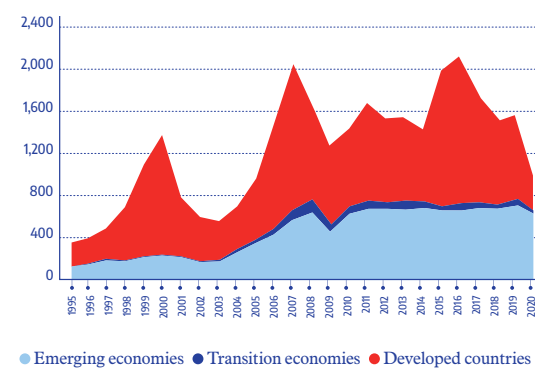
Global foreign direct investment (FDI) flows declined by 35% in 2020, to an amount close to US\$1,000 billion, a much sharper drop than that of trade (-9.6%) or economic activity (-3.5%). The United States and China were the largest recipients of foreign investment in 2020 (UNCTAD figures).

In this difficult global context, FDI inflows amounted to €4 billion in 2020 (Banque de France data), a marked decrease compared with 2019 (€25 billion). The postponement of investment decisions weighed on equity transactions. In addition, reinvestment of profits was lower due to the deterioration in the results of subsidiaries of foreign businesses in France, and the withdrawal of funds by parent companies abroad from their French subsidiaries.

France is ranked 10th in the world for inward FDI stock in 2020, with around €785 billion, and is ranked sixth in Europe, after the Netherlands, the United Kingdom, Switzerland, Ireland and Germany, a stable level compared with 2019 (UNCTAD figures).

According to UNCTAD, incoming global FDI flows fell by 35% in 2020, from US\$1,530 billion in 2019 to US\$999 billion in 2020, their lowest level since 2005. The fall in FDI inflows was more pronounced in developed countries (-59%, with a flow of US\$329 billion) than in developing countries (-9%, with a flow of US\$670 billion). The United States (US\$156 billion, despite a 40% fall), China (US\$149 billion), Hong Kong (US\$119 billion) and Singapore (US\$91 billion) were the leading recipients of foreign investment in 2020.

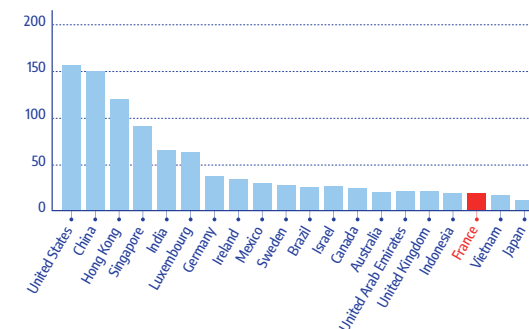
FIG. 1  
FOREIGN DIRECT INVESTMENT  
INFLOWS (1995-2020)  
US\$ BILLION



Source: UNCTAD, 2021

In 2020, FDI net inflows to France amounted to €4 billion, down sharply compared with 2019 (€25 billion), according to the Banque de France<sup>1</sup>. In 2020, France was the 17th country in the world to have attracted the largest volume of FDI<sup>2</sup> (12th in 2019), and the sixth largest in Europe, after Luxembourg, Germany, Ireland, Sweden and the United Kingdom, according to data from UNCTAD.

FIG. 2  
FOREIGN DIRECT INVESTMENT  
INFLOWS (2020)  
LEADING 20 RECIPIENTS  
US\$ BILLION



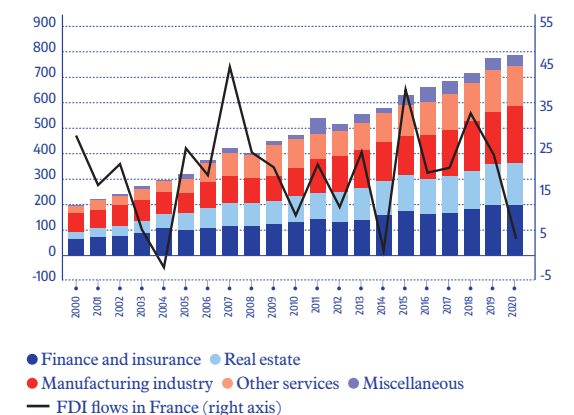
Source: UNCTAD, 2021

Taking into consideration France's neighboring economies (Banque de France data)<sup>3</sup>, the leading countries in terms of FDI flows to invest in France in 2020 were the Netherlands (€5 billion)<sup>4</sup>, Poland (€2 billion), Germany (€2 billion), Belgium (€1 billion) and Ireland (€1 billion).

Conversely, some traditionally major investors in France posted negative investment flows (divestments greater than investments): United Kingdom (-€2 billion, compared with +€3 billion in 2019), Italy (-€2 billion, compared with +€2 billion), United States (-€2 billion, compared with +€7 billion) and Luxembourg (-€1 billion, compared with €1 billion).

The breakdown of inward FDI flows by transaction type shows that the drop in equity transactions (from €23 billion in 2019 to €11 billion in 2020) and reinvestment earnings (from €9 billion in 2019 to €5 billion in 2020) strongly contributed to the fall in FDI, as well as significant capital outflows linked to intra-group flows (€12 billion in 2020<sup>5</sup> compared with €7 billion in 2019).

FIG. 3  
FOREIGN DIRECT INVESTMENT INFLOWS  
IN FRANCE (2000-2020)  
STOCKS AND FLOWS  
€ BILLION



Source: Banque de France

<sup>1</sup> Published in July 2021, this figure differs from the latest estimate by UNCTAD, published in June 2021, which estimated flows entering France in 2020 to be €16 billion, after €30 billion in 2019.

<sup>2</sup> Rankings by country in the rest of this chapter have been obtained by grouping together China and Hong Kong.

<sup>3</sup> This methodology highlights the country from which the investment was made directly. No reprocessing of data has been carried out.

<sup>4</sup> This amount results from an inflow of €6 billion in aerospace, while the net inflow is negative for the service sectors (-€2.6 billion) and low for the other manufacturing sectors (nearly €400 million). Some €3 billion in inflows corresponded to intra-group loans.

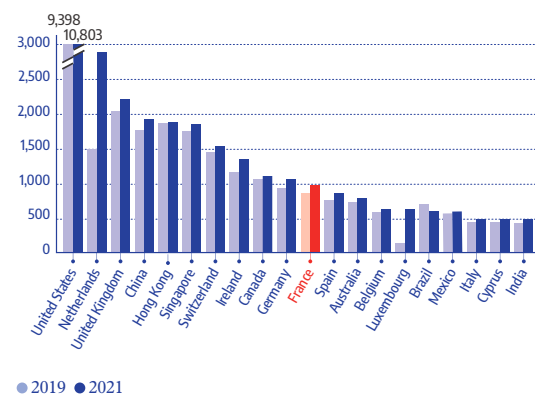
<sup>5</sup> Cumulative intra-group capital outflows from Italy, the United States, Luxembourg and the United Kingdom amounted to €14.4 billion.



Incoming investment stock in France amounted to €785 billion at the end of 2020, up 3% compared with 2019, according to Banque de France estimates. According to UNCTAD data, France is ranked tenth in the world in terms of inward FDI stock, and is sixth in Europe, after the Netherlands, the United Kingdom, Switzerland, Ireland and Germany, with stable levels compared with 2019.

FIG. 4

#### INWARD FDI STOCK LEADING RECIPIENTS (TOP 20) US\$ BILLION

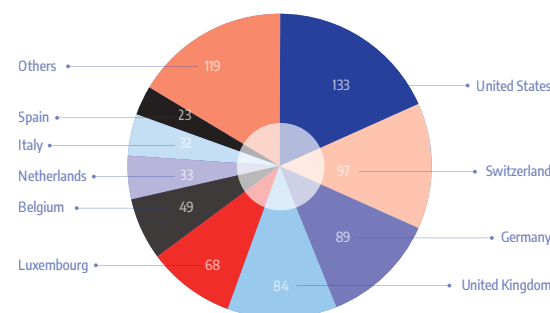


Source: UNCTAD, 2021

FDI stocks entering France by country of origin came mainly from Luxembourg (€144 billion), Switzerland (€104 billion), the United Kingdom (€101 billion) and the Netherlands (€94 billion). After restatement of these investments according to the location of the investors' parent company ("ultimate investor" methodology),<sup>6</sup> the United States (€133 billion in 2019) is by far the leading investor in France, followed by Switzerland (€97 billion), Germany (€89 billion) and the United Kingdom (€84 billion).

FIG. 5

#### BREAKDOWN OF INWARD FDI STOCK IN FRANCE BY ULTIMATE INVESTOR COUNTRY (2019) US\$ BILLION



Source: Banque de France, 2020

In terms of business sector, according to the Banque de France, FDI stock in France is mainly spread across the manufacturing industry (€224 billion, or 28% of the total stock, including 7% in the chemicals industry and 4% in the pharmaceutical industry), financial activities and insurance (25%), and real estate (21%).

<sup>6</sup> The so-called "ultimate investor" measure used by the Banque de France enables us to identify the chain of control and thus the ultimate holder of an investment.

## METHODOLOGY

### DEFINITION OF FOREIGN DIRECT INVESTMENT FLOWS

Global statistics on foreign direct investment flows and stocks are collected by UNCTAD (and the IMF for stocks) from central banks, statistics agencies and national governments. At a methodological level, these organizations draw on the recommendations in the sixth edition of the IMF's Balance of Payments manual. However, some differences can be seen between data provided by different statistical organizations, inherent to data collection procedures.

A direct investment relationship is deemed to be established when an individual or company (the investor) owns 10% or more of the voting rights in the company (which is then referred to as the direct investment company) or, failing this, 10% of its share capital.

Thereafter, all financial transactions between the two entities are recorded as foreign direct investment in the financial account of the host country's balance of payments:

- Share capital operations in the strict sense of the term, including business creations, business acquisitions through the acquisition of shares or earning assets, balancing subsidiaries, loan consolidations, subordinated debt and bank capital.
- Real-estate investments.
- Reinvested earnings that represent the proportion of direct investment companies' operating income that is transferred to the parent company over the course of a financial year, less any dividends distributed to the parent company during that year.

- Other transactions, including short- and long-term deposits, advances and loan transactions between affiliated companies, with the exception of commercial loans and loans and deposits between resident banks and their foreign correspondents that are recorded under "other investments."

### DATA RELIABILITY

- FDI flows comprise a wide variety of transactions – business creations, equity stake acquisitions, productive investments, real-estate investments (included in "share capital") and intra-group loans – which cannot be interpreted in any meaningful way at aggregate level.

- FDI flows are highly volatile and frequently subject to revision. Very sharp revisions from one year to the next, due to the technical difficulties of recording flows, may lead to substantial modifications to trends and the rankings of different countries.

Due to these methodological limitations, it is paramount to complete the analysis of FDI flows and stocks with a more micro approach, or by studying firms, so as to take into account the nature of the different investment projects. The Business France Annual Report therefore strives to follow this approach (impact study in terms of jobs, value added, and R&D created).

## 1.2 STRATEGIC ACTIVITIES

Despite the Covid-19 crisis and its severe impact on the economy, France retained its position in 2020 as the leading host country for foreign investment in Europe, according to the EY France Attractiveness Survey.<sup>1</sup>

France has proven to be particularly attractive in terms of industrial activities, having remained the leading country in Europe for the last fifteen years for foreign investment in this sector. These are strategic manufacturing activities with high value added, which act as a driver for the attractiveness and development of the economy and create a large number of jobs.

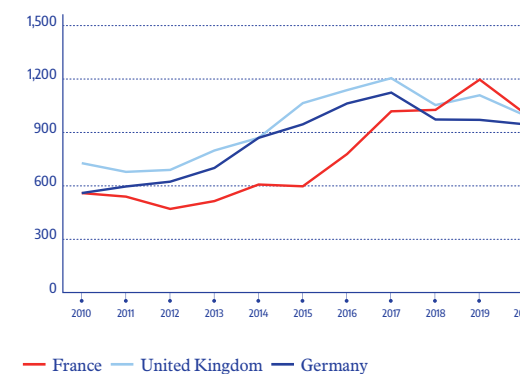
France is also first among the host countries for foreign investment in R&D activities. These activities have a domino effect on the rest of the economy through the transfer of knowledge, technology and expertise. As such, R&D activities

are identified as strategic activities, and they are crucially important for the future competitiveness of the French economy.

The flow of foreign investment projects declined sharply in 2020 due to the Covid-19 health crisis: the number of investment projects to European countries fell by 13%. Although the decline was more marked in France, where there was a 18% reduction in the number of projects recorded, **it remained the leading host country for foreign investment in Europe in 2020**. France received 17.7% of all projects from job-creating investments welcomed in Europe in 2020, where it was followed closely by the United Kingdom (17.5%) and by Germany (16.7%).<sup>2</sup>

FIG. 6

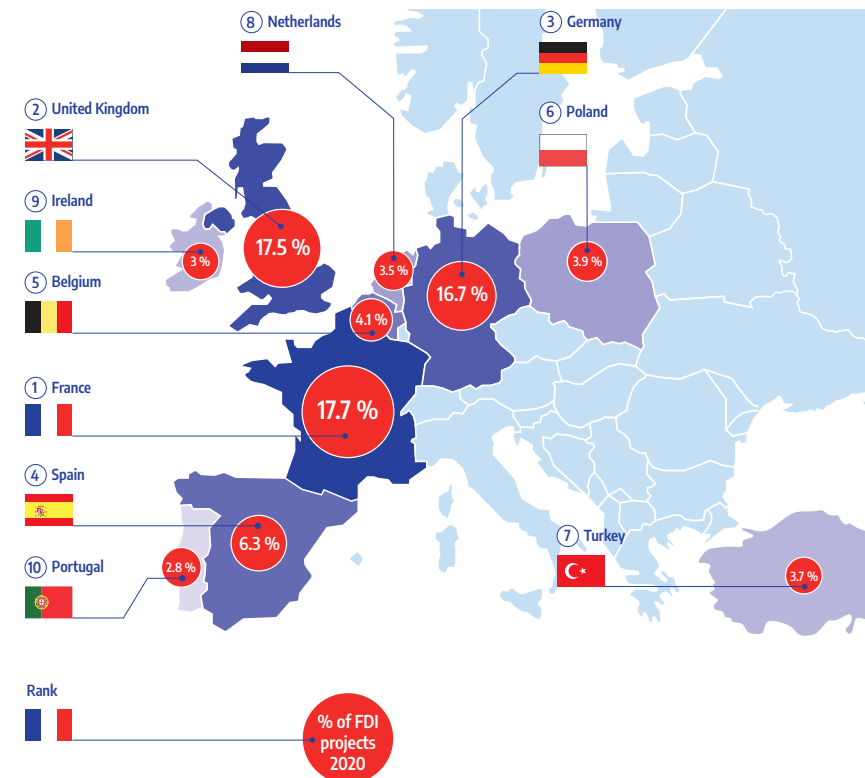
CHANGING NUMBER OF FOREIGN INVESTMENTS IN FRANCE, GERMANY AND THE UNITED KINGDOM (2010-2020)



Source: EY, France Attractiveness Survey 2021

FIG. 7

TOP 10 HOST COUNTRIES IN EUROPE FOR FOREIGN INVESTMENT PROJECTS (2020)



Source: EY, France Attractiveness Survey 2021

<sup>1</sup> The EY Attractiveness Survey is based on the number of job-creating foreign investment projects carried out in each country, rather than the amount of financial flows (UNCTAD).

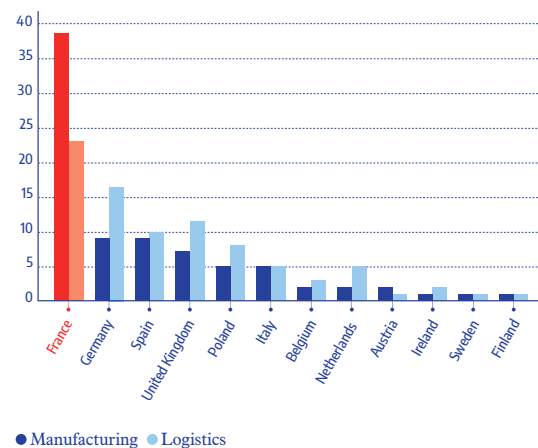
<sup>2</sup> EY, France Attractiveness Survey 2021, June 2021.

**In 2020, France confirmed its place as the leading host country of manufacturing investments in Europe.** Attracted by numerous French key strengths (the presence of sectors and major contractors, expertise and transport infrastructure), international investors have renewed their confidence in the French industrial base, a driving force for innovation with unique expertise. Moreover, in late 2020, nearly one in two international investors saw France as one of Europe's most attractive countries in terms of industry.<sup>3</sup>

The increase in hourly labor costs in the industrial sector was lower in France than in the European Union between 2012 and 2020 (up 10.4%, compared with a 16.1% rise in the EU-27 and a 18.6% rise in Germany). Its level (€40.20 per hour in 2020) is €1.60 per hour lower than in Germany. In addition to this measured increase in labor costs, there is high labor productivity in France and the country also boasts a highly skilled workforce.

FIG.8

MULTINATIONAL FIRM INVESTMENT DECISIONS BY SECTOR (2020) EUROPEAN PROJECTS (%)



Source: Business France Europe Observatory, 2021

Investments in manufacturing activities in France accounted for 70%<sup>4</sup> of expansions of pre-existing sites and for 21% of new openings. In 2020, 217 expansions of industrial sites were completed, and 66 new factories were opened. Furthermore, the establishment of new manufacturing facilities increased significantly in 2020, up 32%.

Two-thirds of foreign investment in the manufacturing sector originated from Germany, the United States, Italy, Spain, Switzerland, the United Kingdom and the Netherlands. Germany, with 18% of manufacturing investments, was the leading foreign investor in France in this regard.

The leading target sectors for manufacturing investments were chemicals/plastics, machinery and mechanical equipment, and agri-food (each one accounting for 10% of projects), followed by the automotive industry and energy/recycling (9%).

**In the EY Attractiveness Survey 2020, France also retained its position as the leading European destination for international investment projects in R&D operations,** just ahead of the United Kingdom. According to the Business France/ Kantar Public survey, 69% of foreign executives at the end of 2019 considered R&D and innovation as a major part of France's attractiveness compared with other European countries.

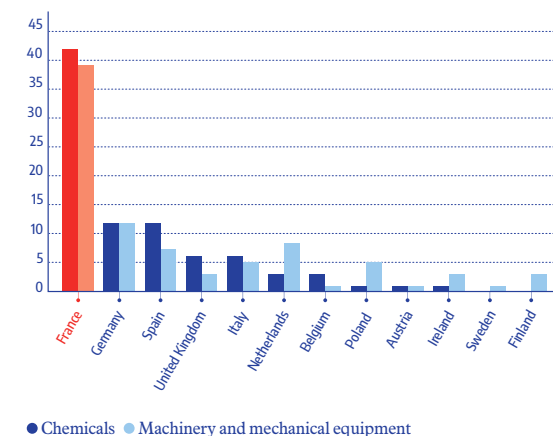
In terms of R&D, France's attractiveness is based on its proximity to markets and other business activities (for 86% of senior executives abroad), the quality of R&D personnel (86%), its clusters (85%), the possibilities of collaboration with university research teams (82%), and the level of public support for R&D (81%).

However, findings from Business France's Europe Observatory have also revealed that the United Kingdom remains the leading host country for headquarters in Europe, with it being home to 20% of decision-making centers for Europe, compared with 15% in Germany, 13% in Spain, 12% in the Netherlands and 11% in France.

France is a leader in Europe for welcoming investments across a number of industries and services. In particular, it accounts for 42% of projects destined for Europe in the chemicals/ plastics and 38% in the machinery and mechanical equipment sectors.

FIG.9

MULTINATIONAL FIRM INVESTMENT DECISIONS BY SECTOR (2020) EUROPEAN PROJECTS (%)



Source: Business France Europe Observatory, 2021

**France is a preferred destination for foreign investments in the health sector,** with it having received 30% of foreign investments destined for Europe in 2020, thanks to the sector's strong growth due to the Covid-19 crisis. EY has calculated that France saw an increase of 123% of projects in the pharmaceutical industry and 40% of projects in medical and surgical equipment in 2020. These performances underscore France's attractiveness and confirm French businesses' expertise in this key sector.

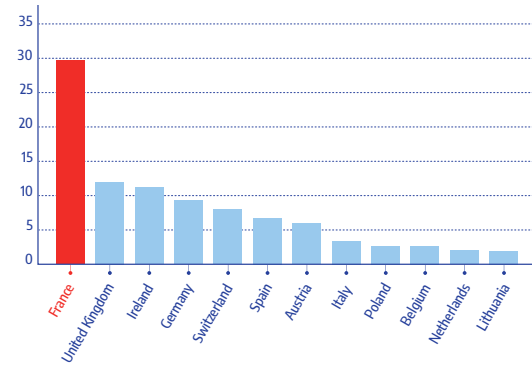
<sup>3</sup> Kantar/Business France survey, January 2021

<sup>4</sup> Data taken from Business France's Annual Report 2020 on Foreign investment in France



FIG.10

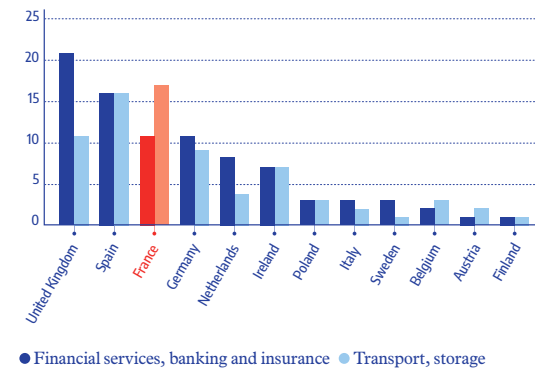
MULTINATIONAL FIRM INVESTMENT DECISIONS IN HEALTHCARE (2020) EUROPEAN PROJECTS (%)



Source: Business France Europe Observatory, 2021

FIG.11

MULTINATIONAL FIRM INVESTMENT DECISIONS BY SECTOR (2020) EUROPEAN PROJECTS (%)



Source: Business France Europe Observatory, 2021

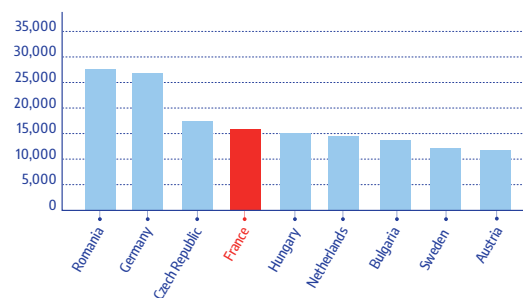
Despite Brexit and the relocation of many bank headquarters in 2019, the United Kingdom remained the leading host country for financial investments in Europe in 2020 with 21% of European projects received, followed by Spain (14%) and France (11%). In the transport and storage sector, on the other hand, France was the leading host country, with 17% of European investment projects, ahead of Spain (14%) and the United Kingdom (11%).

# 1.3 CONTRIBUTION OF FOREIGN SUBSIDIARIES TO THE FRENCH ECONOMY

The subsidiaries of foreign businesses in France play an important role in the French economy through various channels, such as employment, contribution to the creation of value added and R&D expenditure in France. The FATS (Inward Foreign Affiliates Statistics) European survey, conducted in France by INSEE based on responses made by group headquarters, enables us to measure these effects. The share held by non-residents in the market capitalization of French businesses is further proof of the openness and attractiveness of France's economy.

The number of foreign subsidiaries in France stood at 15,859 in 2018, according to the latest data available from the INSEE subsidiary survey, with France being the fourth host country in the European Union for foreign subsidiaries after Romania, Germany and the Czech Republic by the number of subsidiaries. These subsidiaries generated revenues of €783 million in 2018 (second in the European Union after Germany, with around €1.6 billion in revenues) and employed 2.2 million people in France, placing it second in the European Union, after Germany (3.7 million), accounting for nearly 9% of jobs in France.<sup>1</sup>

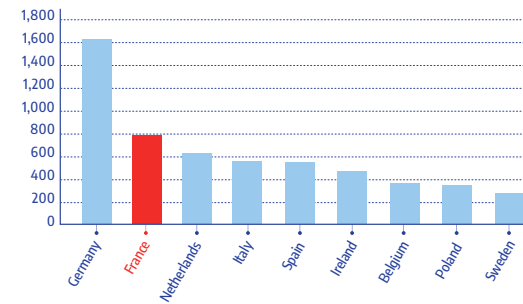
**FIG. 12**  
NUMBER OF FOREIGN SUBSIDIARIES (2018)



Source: FATS, Eurostat

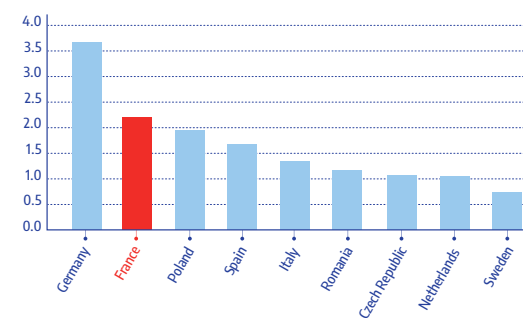
<sup>1</sup> This ratio is obtained by using the latest INSEE estimate for the number of jobs in France at the end of 2018 (25.25 million).

**FIG. 13**  
REVENUES GENERATED BY FOREIGN  
SUBSIDIARIES (2018)  
€ BILLION



Source: FATS, Eurostat

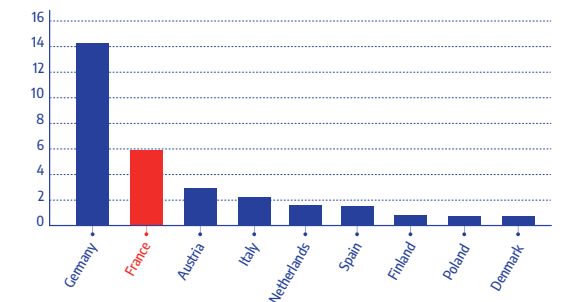
**FIG. 14**  
DIRECT EMPLOYMENT GENERATED  
BY FOREIGN SUBSIDIARIES (2018)  
MILLION



Source: FATS, Eurostat

The subsidiaries of foreign businesses in France make a significant contribution to R&D expenditure across the country. The total amount of R&D expenditure spent internally by these subsidiaries was €5.9 billion in 2017 (latest data available), or nearly 25% of the total R&D expenditure in France over the year. This is the second highest amount recorded by Eurostat in 2017 among European countries after Germany (€14.3 billion and 14% of total R&D spending by Germany in the year).

**FIG. 15**  
R&D EXPENDITURE CARRIED OUT BY  
FOREIGN SUBSIDIARIES (2017)  
€ BILLION

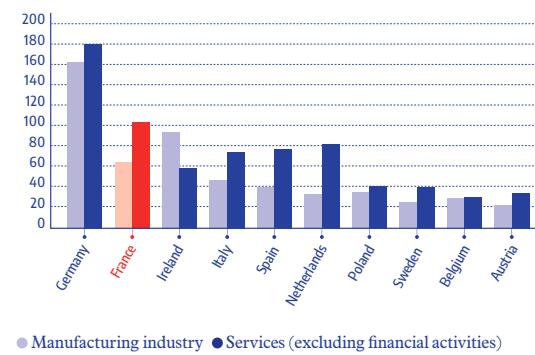


Source: FATS, Eurostat

In terms of value added created, the contribution of foreign subsidiaries in 2018 was €65 billion in the manufacturing industry, or 22% of total value added in the sector, where France was ranked third in the European Union, after Germany (€162 billion) and Ireland (€94 billion), and was €104 billion in services (excluding financial activities), where France was second in the European Union, after Germany (€181 billion), or 7% of value added of non-financial services.

FIG.16

VALUE ADDED BY FOREIGN SUBSIDIARIES  
€ BILLION



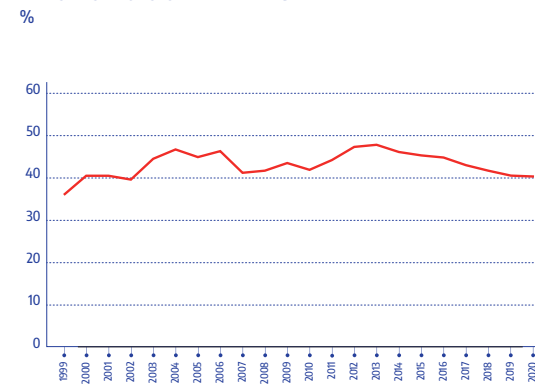
Source: Eurostat, 2021

Further testament to the attractiveness of the French economy is the number of foreign shareholders who hold a share in the capitalization of the Paris marketplace.

According to the Banque de France, the share of non-resident equity holdings in French companies on the CAC 40 amounted to 39.9%, or €667 billion, at the end of 2020, versus 40.6% at the end of 2019. Non-resident equity holdings in the CAC 40 were split between portfolio investments (90%) and individual direct investments (participations over 10% of the share capital), which made up the remaining 10%. A total of 44% of non-resident investors were from the euro zone, compared with 32% from the United States and 5% from the United Kingdom.

FIG.17

NON-RESIDENT EQUITY HOLDINGS  
IN CAC 40 COMPANIES



Source: Banque de France, 2021



# 1.4 FOREIGN SKILLS

Welcoming foreign-born talent enhances as much as it determines a country's international reputation and attractiveness.

With nearly 250,000 international students enrolled in tertiary education on OECD figures in 2019, France was the sixth most popular destination in the world after the United States, Australia, the United Kingdom, Germany and Canada, and was the second leading non-Anglophone nation.

Foreign students account for nearly 10% of all tertiary education students in France and figure particularly strongly in high-level training programs linked to research, representing 38% of all PhD students.

A number of mechanisms have been put in place in recent years to attract and facilitate the reception of highly qualified foreign workers.

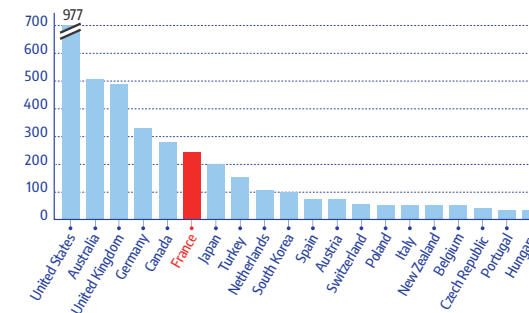
In 2019, the number of students worldwide in tertiary education abroad amounted to more than six million; there were only 2.7 million, or less than half as many, 15 years ago. The number of foreign or internationally mobile students increased by 3.7 % on average per year between 1999 and 2019. The OECD countries welcomed 70% of these students, where 67% of internationally mobile students came from developing countries.

Europe continued to be an attractive destination for internationally mobile students in 2019: the 22 OECD countries that are also EU members and the United Kingdom welcomed 1.8 million international students. The United Kingdom, Germany and France together welcomed more than a million students.

**France was ranked sixth in the world in 2019, after the United States, Australia, the United Kingdom, Germany and Canada, for welcoming international students and was the second leading non-Anglophone nation.**

FIG.18

TOP 20 OECD HOST COUNTRIES FOR INTERNATIONALLY MOBILE STUDENTS (2019)  
'000 STUDENTS



Source: OECD, Education at a Glance, 2021

## “Welcome to France” plan

In November 2018, the Prime Minister presented the national strategy to attract international students to France. The objective was to increase the number of new international students in France through a simplification of the visa policy, an increase in French as a Foreign Language (FFL) courses and the introduction of programs taught in English.

This strategy also provided for the introduction of tiered tuition fees, with the amount payable dependent on a particular student's qualifications and their family's income.

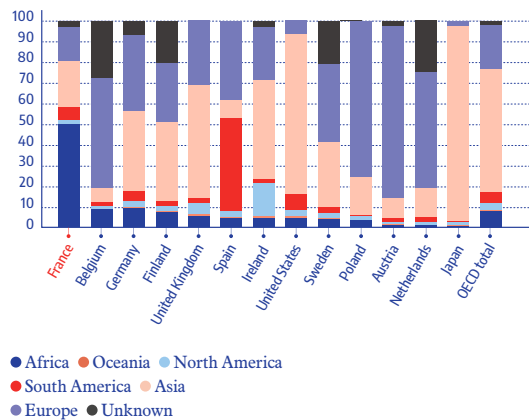
Lastly, the plan sought to improve and standardize the living conditions for international students by creating a quality accreditation (see below) and to triple the number of scholarships available. The aim is to welcome half a million foreign students by 2027.

France hosts students from every region of the world, standing out for the large proportion of students it welcomes from Africa. Similarities between countries, including shared languages, historic ties, geographic proximity, and political agreements (such as the European Higher Education Area) all have a significant influence on the destination choices made by international students.

As such, half of all internationally mobile students undergoing training in France are originally from Africa, whereas the share of African students is below 10% in all the other countries in our sample and stands at only 8% for all OECD countries. Asia is the second leading region of origin of internationally mobile students undergoing training in France (22%), then Europe with 17% of students. In Germany, foreign students are above all from Asian (38%) and European (37%) countries.

The reputation of the French language, French culture and the excellent reputation of the French tertiary education system are key advantages to attract foreign students to France. Countries where teaching establishments achieve high positions in international league tables are among the most sought-after destinations by international students.

**FIG. 19**  
GEOGRAPHIC ORIGIN OF FOREIGN STUDENTS (2019)  
%



Source: OECD, Education at a Glance, 2021

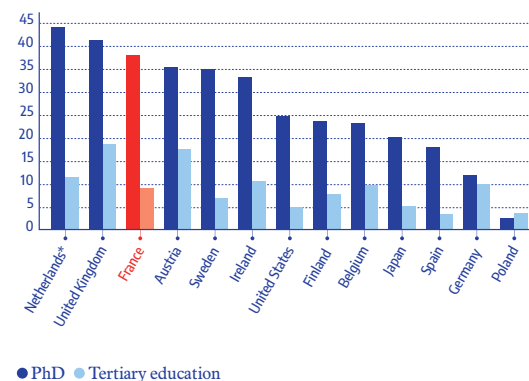
In OECD countries, internationally mobile students accounted for 6% of the class size on short cycle courses. This rate, relatively low at degree level, increases with the level of qualification, with internationally mobile students accounting for 14% of class size at Master's level, but 22% at PhD level.

In 2019, internationally mobile students accounted for 9% of all students enrolled in tertiary education in France, compared with 19% in the United Kingdom and 10% in Germany.

France stands out for its very high proportion of foreign students following advanced research programs: 38% of its PhD students are from foreign countries, versus only 12% in Germany.

A sign of the vitality of research in France, French research centers recruit numerous foreign researchers and doctoral students and invite teachers from all over the world. Consequently, at the end of 2019, foreign personnel accounted for 18.1% of all CNRS researchers.

**FIG. 20**  
PROPORTION OF INTERNATIONAL STUDENTS IN HIGHER EDUCATION (2019)  
%



\* Data for 2018  
Source: OECD, Education at a Glance, 2021

In 2019, permanent labor migration in OECD countries recorded a sharp increase (+13% in countries for which data is available). Half of the countries recorded double-digit increases, including the United Kingdom (+42%), Finland (+29%), Luxembourg (+29%), Japan (+17%) and France (+12%).

In France, around 7,150 scientific visas in 2019 were issued to researchers who were not nationals of the European Union or the European Economic Area: 34% were for stays of less than or equal to three months and 66% for stays going beyond this time frame. For long-stay visas (duration greater than three months), 70% were issued to nationals of the following countries: China, Brazil, India, Algeria, Tunisia, United States, Lebanon, Iran, Morocco and Japan.

# Legislation on foreign talent

After a reform of the law safeguarding the rights of foreigners in France in 2016, the country continued in 2017 with the implementation of the provisions relating in particular to economic migration (creation of multi-year residence permits, new residence permits for foreign talent, etc.) with the publication of numerous decrees for the application of the Act of March 7, 2016 safeguarding the rights of foreigners in France.

It also worked to implement the EU Directive 2016/801 of May 11, 2016 for the purposes of research, studies, training, volunteering and exchange programs involving students and au pairs.

In 2017, the “French Tech Visa” scheme, aimed at attracting innovative businesses, startups and foreign investors, was launched. The France-Visas portal went live in October 2017 to facilitate online visa applications.

The Act of September 10, 2018 on immigration and asylum extended the duration of the “Talent Passport” residence permit, first created in 2016, to four years. This permit can now be issued to members of the family (spouse and children) without having to go through the family reunification procedure.

The 2018 Act also established new temporary residence permits for certain categories of students and researchers (job search card or business creation card, etc.), as well as for au pairs.

# The “Welcome to France” label

The quality of the care offered to international students is key to the international development and the attractiveness of our higher education system. With this in mind, Campus France has created the “Welcome to France” label, which will be awarded to higher education establishments wishing to make visible their efforts to improve the quality of the welcome shown to international students.

The “Welcome to France” certification is part of an overall quality approach for institutions, serving as a tool for measuring, describing and promoting their systems and services dedicated to international students. It is used for the communication and promotion of institutions, to target an audience of international students, who are becoming increasingly demanding when it comes to the welcome they receive.

# Welcome to France

As part of its mission to attract job-creating foreign investment, Business France has developed an international mobility service, named the “Welcome Office”, to help investors send the necessary foreign employees to France to complete their setup plan and develop their activity (intra-group mobility and recruitment of specific skills).

This service created in 2017 is responsible for informing investors about the procedures to be carried

out to come to France (visa/residence permit/work permit, personal taxation, social protection, other aspects of daily life) and facilitating the arrival of foreign talent and their families.

The information is organized around a website, [www.welcometofrance.com](http://www.welcometofrance.com), which offers the possibility of completing an online course to learn the necessary steps to successfully settle in France.

# The research residency

In order to strengthen France’s attractiveness for research and to develop scientific partnerships between French and foreign institutions, the Multi-Annual Research Programming Act, which was promulgated on December 24, 2020, has created a new system to facilitate hosting foreign researchers and doctoral scholarship holders. This will take the form of a “research residency”.

International doctoral students and researchers who have been awarded a grant on scientific grounds by either a foreign government, a foreign institution or the French Ministry for Europe and Foreign Affairs may sign, with the host institution, a research residency agreement.

The aims of this are to:

- Simplify and improve the hosting of foreign students undertaking doctoral studies.
- Simplify and facilitate the process of obtaining a residence permit that is tailored to their circumstances.
- Provide full social security coverage to foreign scholarship holders who are not registered with a French establishment or who are self-employed (health insurance, repatriation, civil liability, etc.).
- Authorize the payment of additional funding to the foreign scholarship holder that is not classed as a salary.



FRANCE  
ATTRACTIVENESS



# CHAPTER 2

## ATTRACTIVENESS CRITERIA

*Market size and strength*

→ 36

*Education and human capital*

→ 42

*Research and innovation*

→ 48

*Infrastructures*

→ 56

*Administrative and regulatory environment*

→ 64

*Financial environment*

→ 72

*Cost of labor and taxation*

→ 78

*Quality of life*

→ 92

*Energy and green growth*

→ 104

## 2.1 MARKET SIZE AND STRENGTH

The size of a country's market, measured notably by GDP and the number of inhabitants, its strength and its location are often decisive criteria for multinational firms deciding where to set up.

In 2020, France was the world's seventh largest economy after the United States, China, Japan, Germany, the United Kingdom and India.

France's strategic location at the heart of Europe – the world's second largest market – and high quality, multimodal transport infrastructure make it a potential hub for a number of European and African countries.

France has every reason to be confident about its future, thanks to its strong population growth and a fertility rate that is amongst the highest in Europe. For businesses, the strength of investment in

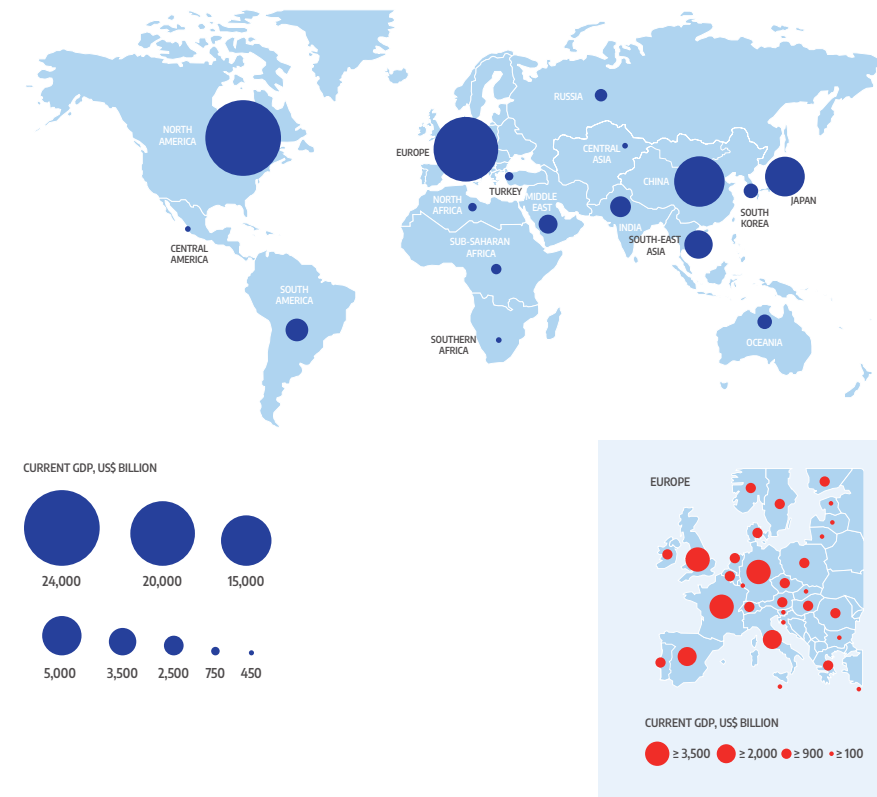
France in recent years and their resilience in the face of the economic crisis, in particular thanks to support measures, are both encouraging signs.

In 2020, **France was the world's seventh largest economy (US\$2,620 billion)**, after the United States (US\$20,890 billion), China (US\$14,870 billion), Japan (US\$5,050 billion), Germany (US\$3,840 billion), the United Kingdom (US\$2,710 billion) and India (US\$2,660 billion).

**In addition, France occupies a central position within Europe, which is the second largest market in the world, with a current GDP of US\$19,940 billion in 2020**, compared with US\$23,660 billion for North America.

FIG.21

DISTRIBUTION OF GLOBAL WEALTH (2020)  
CURRENT GDP, US\$ BILLION

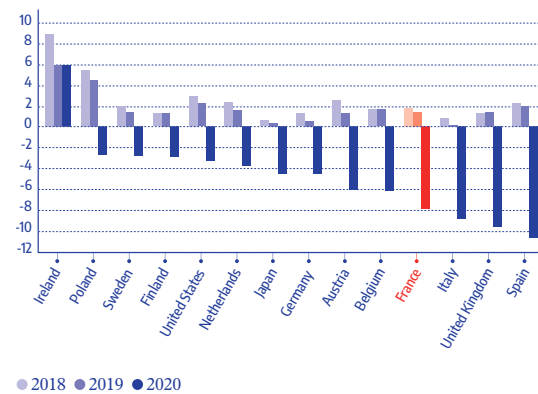


The Covid-19 crisis had a very strong negative impact on all economies, with global GDP falling by 3.1% in 2020. The decline in activity was strongly linked to the intensity of the first wave. As such, France experienced an 8% decline in GDP in 2020, higher than that of Germany (-4.3%) but less than in the United Kingdom (-9.8%) and in Spain (-10.8%).

However, there was a solid rebound in French activity in the second quarter of 2020 and this recovery remained strong in 2021. **The IMF's growth forecasts for 2021<sup>1</sup> were very high for France**, with French growth expected to be the third highest among our sample countries in 2021 (+6.3%), just after the United Kingdom (+6.8%), but ahead of Germany (+3.1%). For the euro zone as a whole, this growth forecast is 5%.

FIG. 22

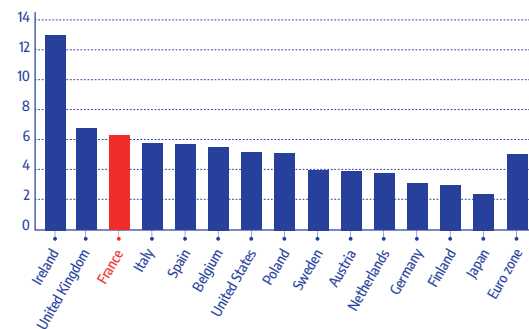
COMPOUND ANNUAL RATE OF REAL GDP GROWTH %



Source: IMF, World Economic Outlook, October 2021

FIG. 23

FORECAST COMPOUND ANNUAL RATE OF REAL GDP GROWTH (2021) %



Source: IMF, World Economic Outlook, October 2021

**France's location at the heart of Europe and the size of its domestic market mean that it has high market potential.** It borders the four other largest economies in Europe, Germany, the United Kingdom, Italy and Spain, three of which are also in the European Union. By setting up in France, businesses can have direct access to these markets and to their more than 320 million inhabitants, with a GDP exceeding US\$12 trillion.

A way of measuring this centrality is to look at the market potential (see Methodology: Market potential). According to this “access to EU-27 markets and the United Kingdom” criterion, France was ranked third in 2020, ahead of Germany and the United Kingdom. Consequently, a foreign business will be minded to set up in France, where domestic demand is high and where there is geographic proximity to the major European markets, associated with easy access. This aspect is strengthened further by the quality of infrastructure which France has, that enable it to easily serve these markets (see Chapter 2.4).

## “Relaunch France” plan

The French government presented a recovery program worth €100 billion in September 2020, focusing on three main areas: the **environment** – the strategic aim of this plan – to support the transition to a more carbon-free and sustainable economy; **competitiveness** to give businesses the most favorable conditions to develop their activities and preserve employment; and **cohesion** to support youth employment and guarantee solidarity between generations, regions, and all French people.

- **Environment:** The first part of the recovery plan will draw on €30 billion to finance the ecological transition in all its dimensions. It will be based on the implementation of energy renovation measures for buildings, decarbonization of industrial sites, development of green infrastructure and mobility, as well as green energies and technologies, and measures in favor of biodiversity, the agricultural transition and the fight against soil artificialization.

Some of these measures will result in a **direct reduction in greenhouse gas emissions**, compared with a recovery without any environmental considerations – with generated savings estimated at 57 million tonnes of CO<sub>2</sub> throughout the lifetime of the projects.

- **Competitiveness:** The second part of the recovery plan will allocate €34 billion to strengthen businesses' competitiveness, in particular to develop the industrial productive base in innovative sectors, gain autonomy of supply for France's most strategic products, in the form of support for the relocation of critical sectors, thereby consolidating French and European economic power.

In this regard, the recovery plan includes measures for a **significant and lasting reduction in production taxes** (€20 billion over two years), and for boosting the capital of micro-enterprises, SMEs and mid-size companies in two major ways: the creation of the “Relaunch France” label, to promote investment vehicles that seek to bolster the capital of businesses in France; and the State guarantee for the granting of up to €20 billion in participatory loans by banking networks to businesses with a viable medium-term model that have been weakened by the crisis. The plan also envisages a huge investment in the technologies of the future (financial aid for innovation, development of key markets).

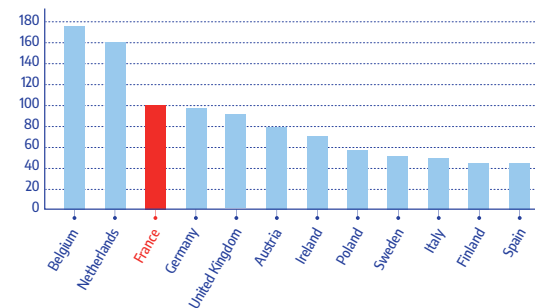
- **Cohesion:** The third component of the plan, worth €36 billion, will be dedicated to the preservation and development of skills, as well as social and regional cohesion. It will aim to safeguard jobs and skills through the deployment of **long-term short-time working** accompanied by a training plan, to generate recruitment, in particular of young people, through the deployment of the “one young person, one solution” initiative, and to boost **vocational training**.

It will also feature a huge investment plan for healthcare, with the implementation of the Ségur healthcare investment measures. Moreover, the recovery plan will strengthen both social (support for the purchasing power of households experiencing poverty) and regional cohesion (digital inclusion, Banque des Territoires recovery plan, revitalization of businesses in urban centers, support for local authorities).

<sup>1</sup> IMF, World Economic Outlook, October 2021

FIG. 24

ACCESS TO EUROPEAN MARKETS (2020)  
INDEX FRANCE = 100

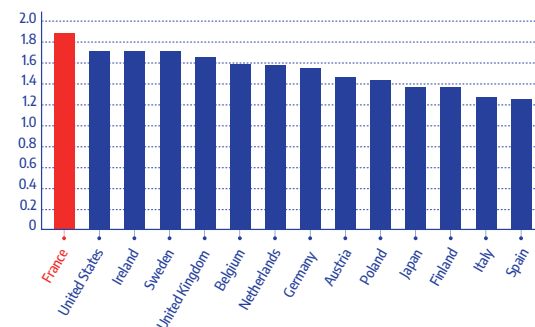


Source: IMF; World Bank, 2021; Mayer, T. and Zignago, S. (2011), Notes on CEPII's Distances Measures: The GeoDist Database, CEPII Working Paper 2011-25; Business France calculations

France also enjoys a vibrant demographic profile, and has the highest fertility rate among the countries in our sample, with nearly two children per woman (1.9) in 2019. The fertility rate stands at 1.65 in the United Kingdom and 1.54 in Germany.

FIG. 25

FERTILITY RATE (2019)  
CHILDREN PER WOMAN, ALL AGE GROUPS



Source: World Bank

# METHODOLOGY

## MARKET POTENTIAL

Market potential enables us to take into consideration not only the market of a given country, but also the ease with which it is possible to serve large neighboring markets. It is calculated as the sum of the GDP of neighboring countries weighted by the distance between them. Here it is calculated for the EU-27 and the United Kingdom markets.

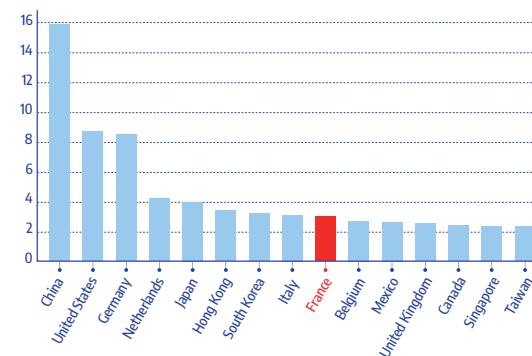
The year 2020 was marked by a significant reduction in French exports. The health crisis ended a marked upturn in French exports that had begun ten years ago. France's goods exports had seen annual average growth of nearly 4% between 2016 and 2019. France was ranked ninth in the world and fourth in Europe in 2019 for the nominal exports of goods. The fall in goods exported by France (-16%) was greater than that observed in Germany (-7%), the United Kingdom (-4%) and Spain (-4%).

However, this decline in goods exported by France was due to the sectoral structure of its exports. The aerospace sector, which makes up a key part of French sales abroad, and to a smaller extent the automotive sector, which together are the main contributors to the drop in exports, were severely affected by the health crisis. In 2020, they experienced falls across the world that were, respectively, four times greater than and twice their total trading volume, compared with all other sectors.

French exports started to rise again from June 2020 at a very sustained rate. This progression continued, with French exports up 7% in the first half of 2021, compared with the second half of 2020. They were up 18% compared with the first half of 2020, and are back to a level close to that seen in 2019.

FIG. 26

GOODS EXPORTS (2020)  
MARKET SHARE OF 15 LEADING ECONOMIES  
% OF GLOBAL EXPORTS

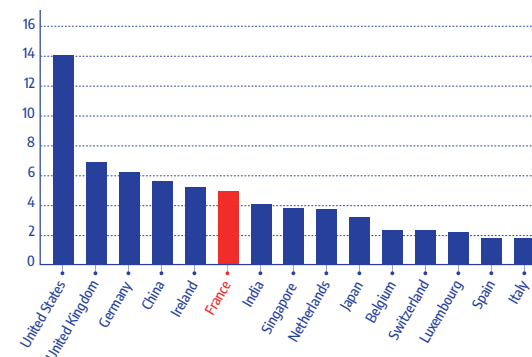


Source: WTO, 2021; Business France calculations

France is the world's sixth leading economy for exports of services, with a market share of 5%. French exports had been severely affected by the sudden end to international tourism, which accounts for 20% of French service exports. However, as for goods, France's service exports returned to a level very close to that observed in 2019 at the end of the first half of 2021, despite the still very severe constraints on international tourism.

FIG. 27

SERVICES EXPORTS (2020)  
MARKET SHARE OF 15 LEADING ECONOMIES  
% OF GLOBAL EXPORTS

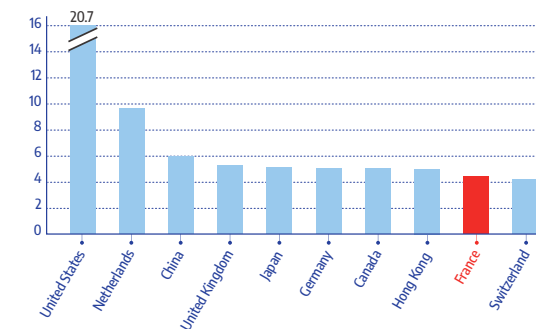


Source: WTO, 2021; Business France calculations

France fully embraces globalization and is one of the world's leading investor countries. In 2020, France was one of the leading 10 economies in the world for outward foreign direct investment (FDI) stocks (4.4% of global stocks), after the United States (21%), the Netherlands (10%), China (6%), the United Kingdom (5.2%), Japan (5.1%), Germany (5%), Canada (5%) and Hong Kong (5%). France's outward FDI stocks are mainly located in the Netherlands, the United States, Belgium, the United Kingdom and Italy. (Banque de France)

FIG. 28

MARKET SHARE OF FDI OUTFLOWS (2020)  
10 LEADING WORLD ECONOMIES  
% OF GLOBAL FDI OUTFLOW STOCK



Source: UNCTAD, 2021; Business France calculations



## 2.2 EDUCATION AND HUMAN CAPITAL

France has a highly qualified workforce and continues to invest in education, tertiary education and lifelong learning to maintain its competitive advantage and consolidate its scientific skills base.

Training is a key driver of a country's competitiveness and investment attractiveness. Tertiary education provision enables students to acquire a broad range of knowledge, skills and key strengths to build the society of the future. Vocational training is essential to facilitate retraining and professional mobility.

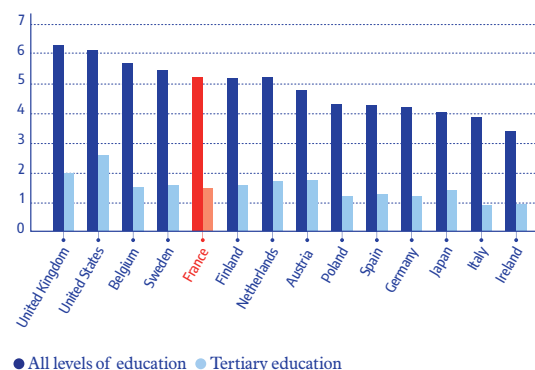
This results in a more productive workforce and a stronger economy. Labor productivity in France is one of the highest in the world, with the 10th highest productivity per capita among OECD countries in 2020.

**Investment in education and training for the younger generation determines an economy's future productivity.**

Keen to consolidate its position as a global economic power, France invests heavily in education: **expenditure on education in France equated to 5.2% of GDP in 2018**, with 1.5% of GDP invested in tertiary education.

FIG. 29

**TOTAL EXPENDITURE ON EDUCATION (2018)**  
% OF GDP



Source: OECD, Education at a Glance, 2021

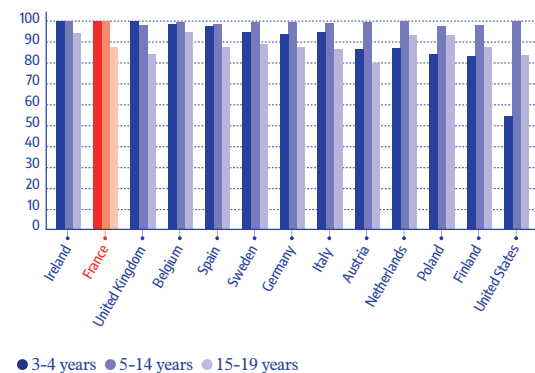
**These important investments are reflected in statistics on schooling, participation in education, and educational achievement.**

Levels of schooling in France were very high in 2019. The 3- to 4-year-old and 5- to 14-year-old age categories achieved a 100% enrollment rate, while the 15- to 19-year-old category managed 87%.

These results are due to schooling being compulsory in France up to the age of 16. The government recently introduced a minimum age for leaving education and training of 18, so that no pupils are left in a situation where they are not in education, training or employment. This system was introduced at the start of the 2020 school year.

FIG. 30

**ENROLMENT RATE (2019)**  
% OF AGE CATEGORY

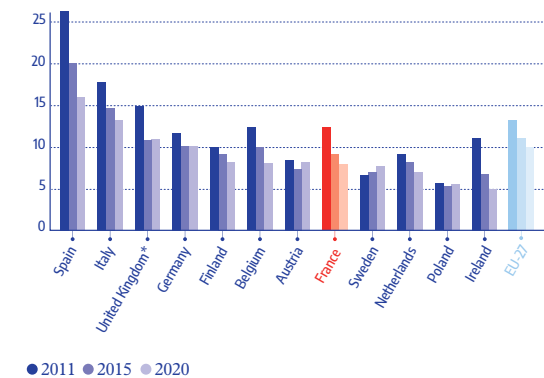


Source: OECD, Education at a Glance, 2021

**The percentage of young people dropping out of education and training early is falling sharply in France.** Having been in excess of 12% at the beginning of the 2010s, this percentage had fallen to 8% in 2020, lower than in Germany (10.1%) and the United Kingdom (10.9% in 2019), and below the EU-27 average (9.9%).

FIG. 31

**EARLY LEAVERS FROM EDUCATION AND TRAINING**  
% OF 18- TO 24-YEAR-OLDS



\* Data for 2019  
Source: Eurostat, 2021

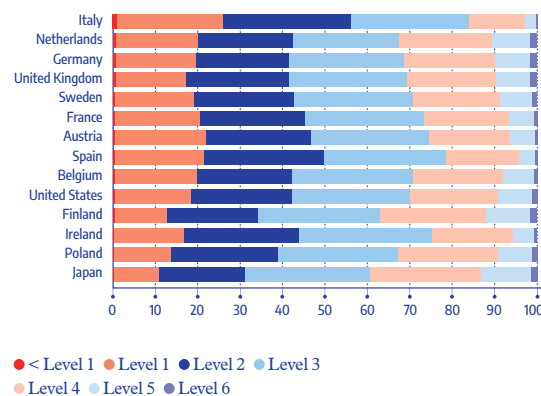
**An assessment of the performance of 15-year-old students (PISA survey) puts France in line with the average, similar to the United States and Austria.**

As regards scientific literacy, 6.5% of 15 year-old students achieved the two highest levels (five and six) in 2018. This is a similar level to Austria (6.3%) and Ireland (5.9%), but higher than Italy (2.8%) and Spain (4.2%), and significantly lower than Germany (10%) and the United Kingdom (9.7%).



FIG. 32

SCIENTIFIC LITERACY OF 15-YEAR-OLD STUDENTS (2018)  
IN DESCENDING ORDER OF MEAN SCORE  
% OF PUPILS RANKED BY LEVEL



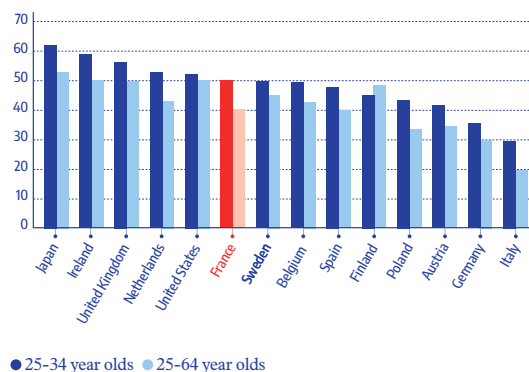
Source: OECD 2019, PISA results 2018 (Volume I)

In 2020, some 39.7% of 25- to 64-year-olds in France had tertiary education qualifications, lower than in the United States (50.1%) and the United Kingdom (49.4%), but higher than in Germany (31.3%). This difference is due to access to tertiary education being democratized later in France, which has since caught up.

Consequently, the population of 25- to 34-year-olds is particularly highly qualified in France: 49.4% of people in this age category held a tertiary education qualification in 2019, similar to the level in Belgium (48.5%), Sweden (49.1%) and the United States (51.9%), but lower than in the United Kingdom (55.8%) and Ireland (58.4%), and significantly higher than in Germany (34.9%), Italy (28.4%) and Finland (44.7%).

FIG. 33

TERTIARY EDUCATION GRADUATES (2020)  
% OF AGE CATEGORY



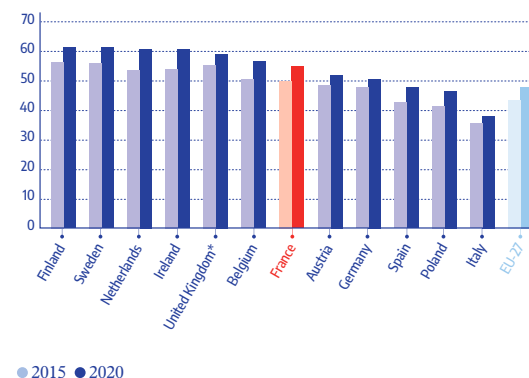
Source: OECD, Education at a Glance, 2021

Human resources in science and technology (HRST) are one of the key drivers of knowledge-based economies. Aside from tertiary education graduates, they include people in scientific and technological occupations requiring advanced qualifications.

France is one of the countries where the share of HRST accounted for more than half of the working population in 2020 (55.2%), after the United Kingdom (59.1% in 2019) but ahead of Germany (50.7%).

FIG. 34

HUMAN RESOURCES IN SCIENCE AND TECHNOLOGY (2020)  
% OF ECONOMICALLY ACTIVE 25- TO 64-YEAR-OLDS



Source: Eurostat, 2021

France is also well placed for numbers of researchers, with 10.6 researchers per 1,000 members of the working population in 2019, a similar level to Germany (10.3), and better than the United Kingdom (9.3) and the United States (9.5 in 2019).

In terms of vocational training, France is committed to strengthening the skills of individuals, notably through the Act for the freedom to choose their professional future. As such, France is one of the only countries in the world to offer a personal training account, which is credited annually with €500 for full-time employees up to a ceiling of €5,000, and with €800 up to a ceiling of €8,000 for the least qualified.

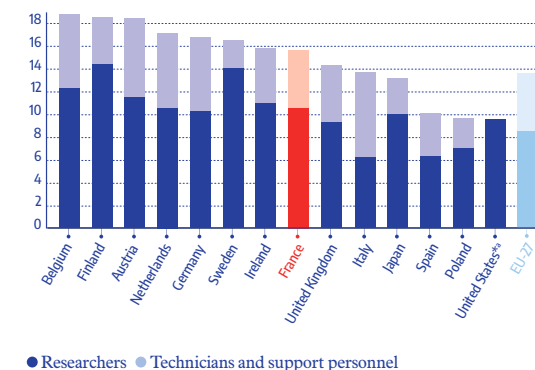
France is also investing more than €15 billion between 2018 and 2022 to strengthen the means to promote access to training for low-skilled young people and the long-term unemployed, notably through the Skills Investment Plan during short-time working. As part of the “Relaunch France” plan, it is investing an additional €3 billion to preserve skills and promote retraining and to support the digitalization of training provision.

In addition, the plan to reduce recruitment tensions intensifies France’s investment in skills post-lockdown. This plan will draw on €1.4 billion in 2021 and 2022, aiming to diminish recruitment tensions and to promote the return to employment of disadvantaged people by broadening support for smaller businesses to those which have 51 to 300 employees.

According to Eurostat data, France is above the European average (9.2%) in terms of adults (25-64 years) undertaking education and vocational training in the last four weeks, with a rate of 13%.

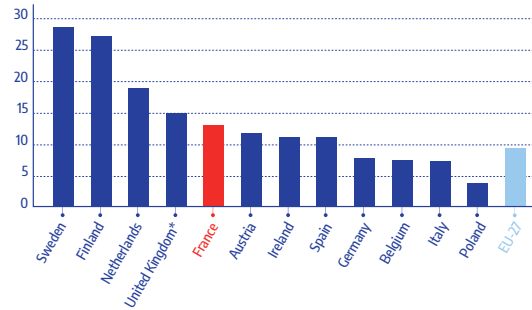
FIG. 35

R&D PERSONNEL (2019)  
PER THOUSAND LABOR FORCE



Source: OECD (MSTI), 2020

**FIG. 36**  
PARTICIPATION RATE IN EDUCATION AND TRAINING BY 25- TO 64-YEAR-OLDS (2020)  
%



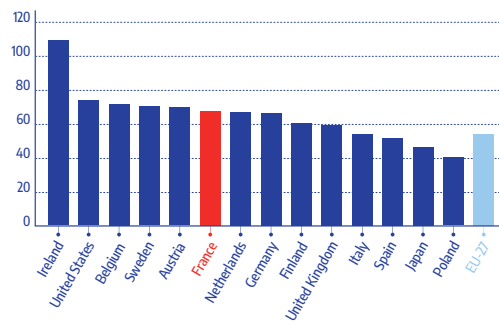
\* Data for 2019  
Source: Eurostat, 2021

Thanks to this highly qualified workforce, France has one of the world's highest levels of productivity, with the 10th highest hourly productivity per employee among OECD countries (sixth in our sample) in 2020, ahead of Germany and the United Kingdom. Thanks to the capacity to adapt of a well-educated active population, businesses can invest more in new technologies, which are an essential requirement for productivity growth.

Since the 1990s, growth in hourly productivity has gradually slowed in France, as it has in many developed countries. After growing at between +1.5% and +2% per year in the 1990s, hourly productivity declined to grow only +1% during the financial crisis of 2007 to 2008.

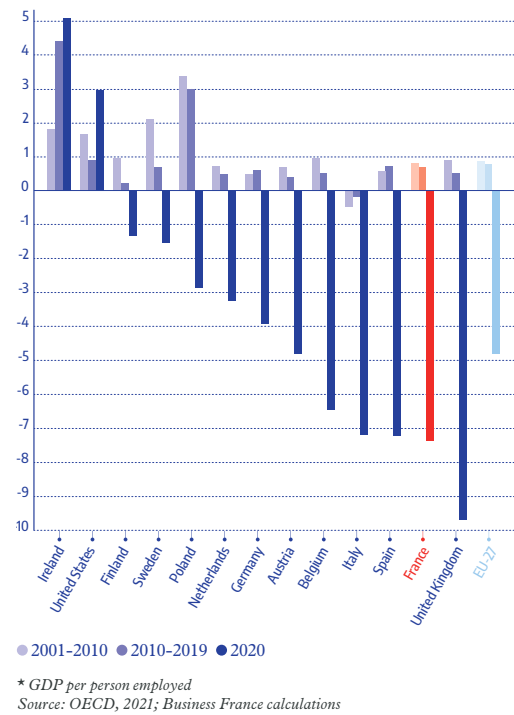
Productivity per employee fell 7.1% in 2020, after rising by 0.4% in 2019. It was affected by the important impact of the health crisis on economic activity, notably with the implementation of short-time working for a substantial number of employees. However, hourly productivity held up in 2020 and indeed advanced slightly (+0.1%) after rising 0.6% in 2019 (see Chapter 2.7 "Cost of labor and taxation").

**FIG. 37**  
HOURLY LABOR PRODUCTIVITY\* (2020)  
TOTAL ECONOMY - US\$ AT PPP



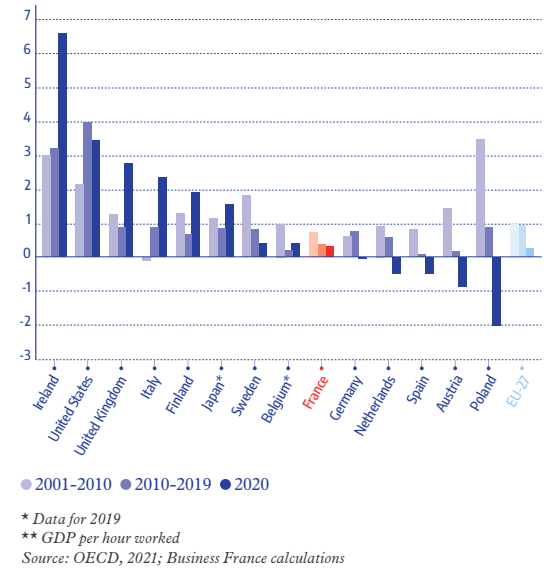
\* GDP per hour worked  
Source: OECD

**FIG. 38**  
TRENDS IN LABOR PRODUCTIVITY PER EMPLOYEE\*  
COMPOUND ANNUAL RATE OF GROWTH - TOTAL ECONOMY  
%



\* GDP per person employed  
Source: OECD, 2021; Business France calculations

**FIG. 39**  
TRENDS IN HOURLY LABOR PRODUCTIVITY\*\*  
COMPOUND ANNUAL RATE OF GROWTH - TOTAL ECONOMY  
%



\* Data for 2019  
\*\* GDP per hour worked  
Source: OECD, 2021; Business France calculations

## 2.3 RESEARCH AND INNOVATION

In the race for economic development, the ability to innovate is essential. Investment in research and development (R&D) and high tech is a crucial part of the competitiveness of countries. The productivity gains made possible by innovation and the diffusion of new technologies support the growth and gains in wellbeing of the economy.

The richness and dynamism of a country's research ecosystem promote knowledge transfers and are factors of attractiveness for technology intensive companies.

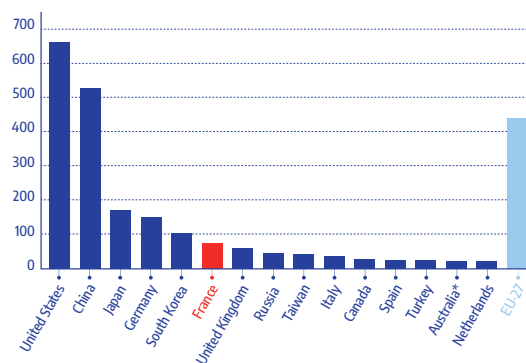
France has an environment conducive to research and innovation; it is the sixth country in the world for R&D spending and fourth in our sample in terms of patent applications.

**In 2019, France spent nearly US\$73 billion on gross domestic expenditure on R&D (GERD), placing it sixth in the world** and fourth in our sample, after the United States (US\$658 billion), Japan (US\$173 billion) and Germany (US\$148 billion). The amount of GERD is an important indicator of the effort made in a country to support innovation and R&D.

Businesses play a vital role in R&D investments. Indeed, they are responsible for a significant part of this expenditure: **in France business enterprise R&D expenditure (BERD) represents 57% of the total GERD**, with the average score being 59% among the EU-27.

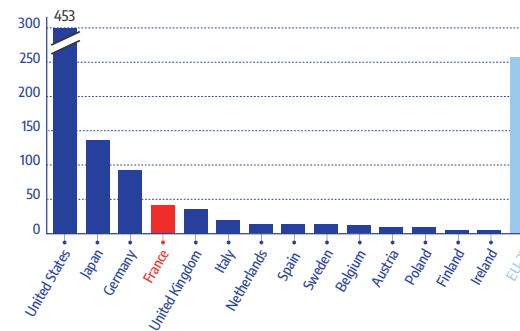
In value terms, business enterprise R&D expenditure (BERD) amounted to nearly US\$42 billion in France in 2019, ranking it fourth in our sample. French businesses are the second largest contributors to R&D spending among European businesses, accounting for 16% of BERD among the EU-27 countries, after Germany (35%).

**FIG. 40**  
GROSS DOMESTIC EXPENDITURE  
ON R&D (2019)  
15 LEADING ECONOMIES  
US\$ BILLION AT CURRENT PRICES AND PPP



\*Data for 2017  
Source: OECD

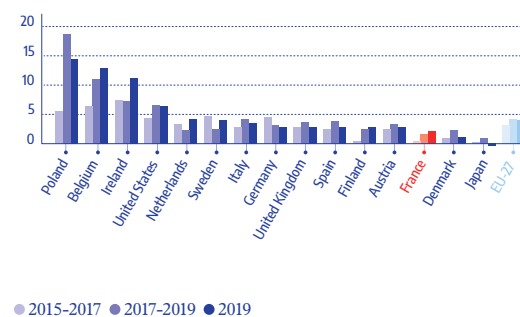
**FIG. 41**  
BUSINESS ENTERPRISE R&D  
EXPENDITURE (BERD) (2019)  
US\$ BILLION AT CURRENT PRICES AND PPP



Source: OECD

**GERD in France grew by 2% in 2019**, with businesses participating in the increase in R&D spending, in a sign of their buoyant efforts, **while BERD increased by 1.6%**. Within the EU-27, GERD increased by 4% in 2019, and BERD by 3.3%.

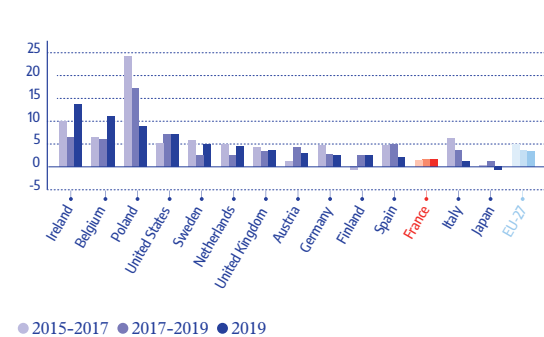
**FIG. 42**  
TRENDS IN GROSS DOMESTIC  
EXPENDITURE ON R&D  
REAL COMPOUND ANNUAL RATE OF GROWTH  
%



● 2015-2017 ● 2017-2019 ● 2019

Source: OECD, 2021; Business France calculations

**FIG. 43**  
TRENDS IN BUSINESS ENTERPRISE  
R&D EXPENDITURE  
REAL COMPOUND ANNUAL RATE OF GROWTH  
%



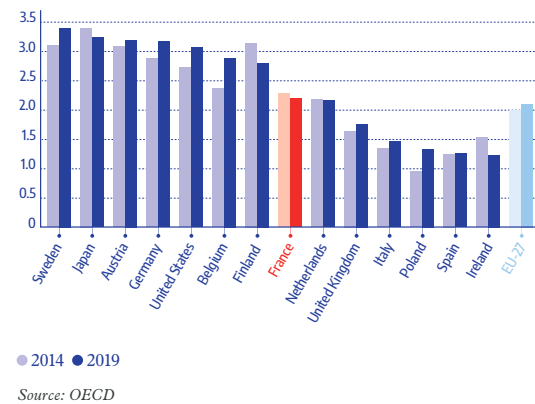
● 2015-2017 ● 2017-2019 ● 2019

Source: OECD, 2021; Business France calculations

R&D intensity (GERD/GDP ratio) has decreased slightly in France since 2014, after several years of growth. **In 2019, gross domestic expenditure on R&D accounted for 2.2% of GDP in France**, slightly higher than the EU-28 average (2%). France is positioned ahead of the United Kingdom (1.7%), Italy (1.4%) and Spain (1.2%), but after Germany (3.1%) and the United States (2.8%). In its Research Programming Act, France has committed to reaching 3% of GDP in research efforts by 2030 (see inset below).

FIG. 44

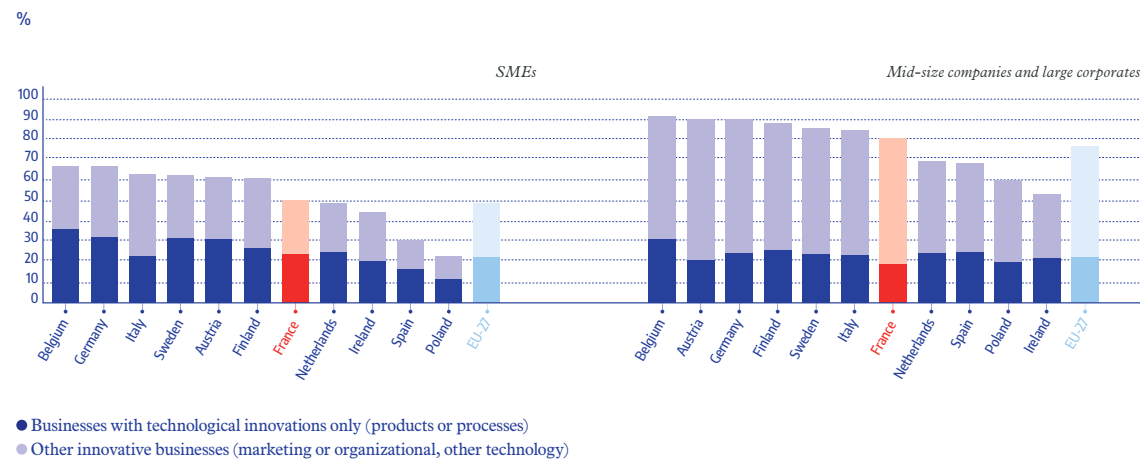
### INTENSITY OF R&D OPERATIONS (GERD/GDP) % OF GDP



SMEs have a lower capacity for innovation than mid-size companies and large corporates (with more than 250 employees) in all the sample countries. **With 50% of SMEs and 80% of mid-sized companies and large corporates reporting innovations in 2018,** France is just above the EU-27 average.

FIG. 45

### INNOVATION STRATEGIES BY BUSINESS SIZE (2018) ALL SECTORS



Source: Eurostat; Business France calculations

**In France, government support for business enterprise R&D expenditure is the highest among OECD countries.** Direct (business subsidies) and indirect (tax incentives) support for business research reached 0.39% of GDP in 2019 (cf. Chapter 2.7 “Cost of labor and taxation”).

This support reflects the commitment of successive governments in the last fifteen years to provide innovation support, using a wide range of tools, notably the research tax credit, but also “innovative new company” (*jeune entreprise innovante – JEI*) status, support from Bpifrance, and the measures of the French government’s “National Investment Program”, among others (see inset below).

The public sector is also a key player in research in France. Public research organizations, including the CNRS (National Center for Scientific Research), are known worldwide. According to the SCImago Journal Rank indicator, the CNRS was, in 2020, the second largest research institution in terms of the number of scientific publications, after the Chinese Academy of Science.

## Government measures to promote innovation in France

**France’s research tax credit** is a tax-incentive scheme to support research that is open to companies of any size and from any sector. The tax credit amounts to 30% of R&D expenses up to €100 million and 5% of expenditure above this threshold. The personnel costs of researchers and research technicians form part of the basis for calculating the tax credit. The hiring of young researchers on permanent contracts at the end of their doctorate is also strongly encouraged.

**Eligibility for the research tax credit was extended in 2013 to encompass innovation spending by SMEs claimed back through the innovation tax credit** (20% rate up to €400,000): the expenses in question must go towards the design of prototype or pilot versions of new products.

**The “innovative new company” (*jeune entreprise innovante – JEI*) status**, introduced in 2004, offers a variety of tax and social security relief (such as partial exemption from corporate tax and capital gains tax, and complete exemption from certain employer social security contributions) to SMEs that are less than 11 years old and devote at least

15% of their total spending to R&D. In parallel, the “new university company” status was brought in to encourage business creation by any individuals involved in research within higher education establishments.

**The “National Investment Program” (*Programme d’investissement d’avenir – PIA*)**, finances innovative projects in sectors identified as strategic for France: ecological transition, higher education and research, digital economy, industrial sovereignty, etc. Since 2010, four successive programs have been launched for a total of €77 billion. Part of the PIA 4 launched in 2020 is integrated into the “Relaunch France” plan to strengthen innovation.

**The 2021–2030 Research Programming Act** seeks to revitalize research in France and strengthen the attractiveness of careers in this field. With €25 billion and an objective of 3% of GDP devoted to R&D in 2030, this program aims, among other things, to facilitate the entry of young researchers into the labor market, enhance the careers of research players and strengthen the dissemination of research in the economy and society.

**Bpifrance** is a public investment bank that offers a continuum of financing, in various forms (grants, repayable advances, guarantees, loans and equity), throughout the development trajectory of SMEs and startups. It is the operator of most public aid for innovation, playing the role of a one-stop shop for businesses.

**“La French Tech”** is a major initiative intended to stimulate France’s most vibrant regional ecosystems and support the growth of their startups and digital companies. It is financed by the French government’s “National Investment Program”.

- Accelerator programs: €200 million invested in private-sector initiatives to help digital companies grow faster and succeed internationally.
- International investment attractiveness: €15 million to support FabLabs and attract foreign talent, entrepreneurs and investors.

<sup>1</sup> For example, it includes the Worldwide Innovation Challenge, financed by funds from the Second and Third “National Investment Program”.

These challenges offers public subsidies (grants and repayable advances), enabling innovative businesses with projects of excellence, which fall under these categories, to carry them out.

# The “France 2030” plan

Launched in 2004, France’s **innovation clusters** bring together innovation players on a given theme in the same region. There are some 54 innovation clusters spread across the country, with an emphasis on the transfer of knowledge and technology between public-sector research and business.

**The Fund for Industry and Innovation (FII)**, which was given €10 billion in 2018, aims to guarantee France’s scientific and technological sovereignty, as well as its economic development. Focused on breakthrough innovation, it benefits from €250 million per year to spend on “Big Challenges”, in particular sectors with high technological and societal risks (artificial intelligence, cybersecurity, mobility, health). It also supports the growth and development of startups specializing in deep tech.

- In October 2021, President Emmanuel Macron launched “France 2030”, a vast investment plan of €30 billion over five years to meet the major challenges of today and create technological champions in France. The plan sets out 10 environmental objectives and technological challenges applied to the future sectors of industry to “understand, live and produce better in France by 2030”.

- The energy sector will benefit from €8 billion to (i) develop small, innovative nuclear reactors with better waste management; (ii) make France a leader in green hydrogen; (iii) decarbonize industry.

- The transport of the future will receive €4 billion to (iv) produce nearly two million electric and hybrid vehicles and (v) create the first low-carbon aircraft.

- The objective of (vi) healthy, sustainable and traceable food will benefit from a budget of €2 billion.

- The (vii) health sector will receive €3 billion, aiming to produce 20 biomedicines against cancer and chronic diseases and to create the medical devices of tomorrow.

- The (viii) space and (ix) seabed sectors will receive €2 billion.

- Finally, (x) €2 billion will be invested in the cultural field to make France a leader in the production of cultural and creative content.

The number of patent applications filed under the international PCT (Patent Cooperation Treaty) procedure reveals a lot about the strength and performance of a country’s research key players. **France is placed fourth in our sample (second in Europe) for the number of patent applications filed in 2020.** With 7,764 applications, it is ranked after the United States (58,753), Japan (50,550) and Germany (18,540), but ahead of the United Kingdom (5,905) and Sweden (4,349). Taking into account the country’s total population, France had 115 patent applications per million inhabitants in 2019.

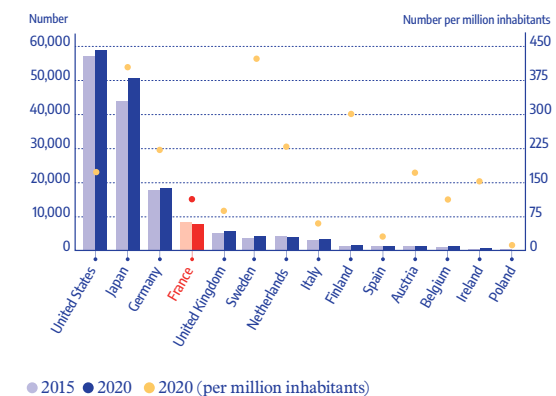
Trademark registrations are a measure of innovation in marketing terms. **In 2019, France filed 395,441 trademark registration applications**, or 5,883 per million inhabitants, placing it fifth in our sample. The United States came top, with more than one million trademarks, ahead of Germany (765,761), the United Kingdom (440,459) and Italy (422,459).

Moreover, according to the World Intellectual Property Organization (WIPO),<sup>1</sup> **French brand L’Oréal was the world’s leading company for filing trademarks in 2019** (according to the Madrid system).

Registrations of models and industrial designs are a third useful intellectual property indicator. **In 2019, France filed 69,758 applications for the registration of models or industrial designs**, or 1,038 per million inhabitants. France was ranked after the United States (133,456 applications filed), Germany (124,739) and Italy (70,592), but ahead of the United Kingdom (54,936) and Sweden (19,454).

FIG. 46

PATENT APPLICATIONS FILED VIA THE PCT PROCEDURE  
PRIORITY YEAR, INVENTOR’S COUNTRY OF RESIDENCE



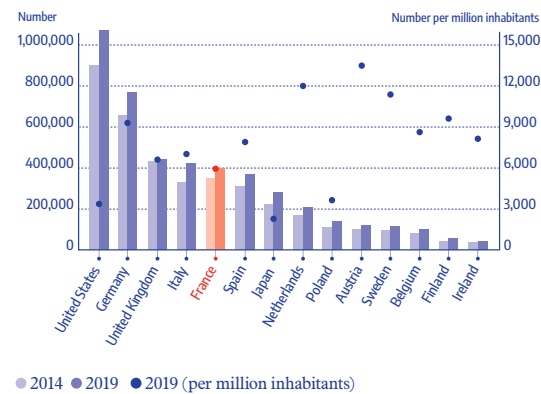
Source: WIPO statistics database; OECD, 2021; Business France calculations

<sup>1</sup> Intellectual Property: WIPO Facts and Figures 2020, WIPO



FIG. 47

TRADEMARK APPLICATIONS FILED BY SOURCE COUNTRY  
TOTAL DIRECT APPLICATIONS AND APPLICATIONS VIA THE MADRID SYSTEM

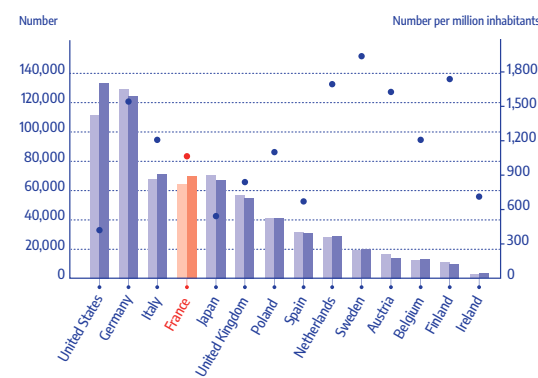


● 2014 ● 2019 ● 2019 (per million inhabitants)

Source: WIPO Statistics database; OECD; Business France calculations

FIG. 48

MODELS AND INDUSTRIAL DESIGNS FILED BY SOURCE COUNTRY  
TOTAL DIRECT APPLICATIONS + APPLICATIONS VIA THE HAGUE SYSTEM



● 2014 ● 2019 ● 2019 (per million inhabitants)

Source: WIPO Statistics database; OECD; Business France calculations

## METHODOLOGY

### PATENTS, TRADEMARKS AND INDUSTRIAL MODELS AND DESIGNS AS INDICATORS OF INNOVATION ACTIVITY

**A patent** is an industrial property title that confers on its holder an exclusive right to use the patented invention for a limited period (generally 20 years) and in a specific territory. Patent applications may be for a single country or for a much wider area (European Union Member States, for example, in the case of applications filed with the European Patent Office). A patent can also be filed under the **PCT procedure**, according to the **Patent Cooperation Treaty**.

This treaty “allows for patent protection to be sought for an invention simultaneously in a large number of countries by filing an ‘international patent application’”. Since March 2017, 152 member states have ratified the Treaty, placing the PCT at the heart of international cooperation for intellectual property. Another advantage of this procedure is that it improves international comparability of patents.

According to the French Patent and Trademark Office (INPI), “in the case of industrial property, a **trademark** is a ‘sign’ used to clearly distinguish the products or services of a company from those of its competitors.” Filing a trademark gives the holder exclusive rights of use in the form of intellectual

property protection. It is used to signal novelty (product innovations, but also marketing and service innovations) and imparts advantages on the innovations when new products are introduced on the market.

**The Madrid System** enables the owner to have their trademark protected in several countries at once by filing a single application directly with their own national or regional trademark office.

**An industrial design or model** conveys an object’s ornamental or aesthetic aspects. It adds to a product’s market value and enhances its commercial potential. In most countries, industrial designs or models must be registered to be protected by law. Depending on national legislation and the type of design or model, it may also be protected by copyright as a non-registered design or model, or as a work of art.

**The Hague System** for the international registration of industrial designs and models enables owners to protect their work in several countries at a time by filing a single international application.

## 2.4 INFRASTRUCTURES

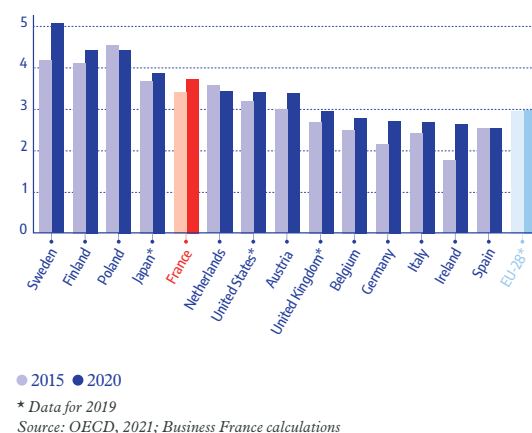
Network infrastructures are essential to economic activity and their quality plays a central role in business competitiveness and a country's attractiveness. The most strategic sectors relating to the network economy are transport, telecommunications and energy (cf. Chapter 2.9 "Energy and green growth"). This factor of attractiveness is a key advantage for the geographical distribution of manufacturing activities, as well as for the movement of goods and people.

As an investment location, France boasts high-quality transport infrastructure, providing fast, cost-effective connections with the rest of the world, especially Europe, Africa and the Middle East.

Businesses operating in France also gain from first-class communication infrastructure and an extensive broadband network. France has the highest fixed broadband internet penetration rate among the countries in the sample.

**French public bodies invest heavily to develop and maintain high-level infrastructure. France has one of the highest levels of state investment among our sample countries (3.6% of GDP in 2020), higher than in the United States (3.3% in 2019), the United Kingdom (2.9% in 2019) and Germany (2.7% in 2020).**

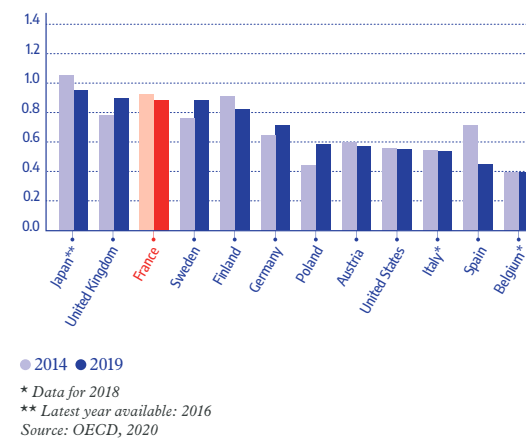
**FIG. 49**  
GROSS FIXED CAPITAL FORMATION  
IN PUBLIC SERVICES  
% OF GDP



### Transport infrastructure

Investments in transport infrastructure in 2019 were equivalent to 0.9% of France's GDP. This level is higher than in Germany (0.7%) and the United States (0.6%).

**FIG. 50**  
INVESTMENT IN INLAND TRANSPORT  
INFRASTRUCTURE  
GROSS INVESTMENT AS A % OF GDP

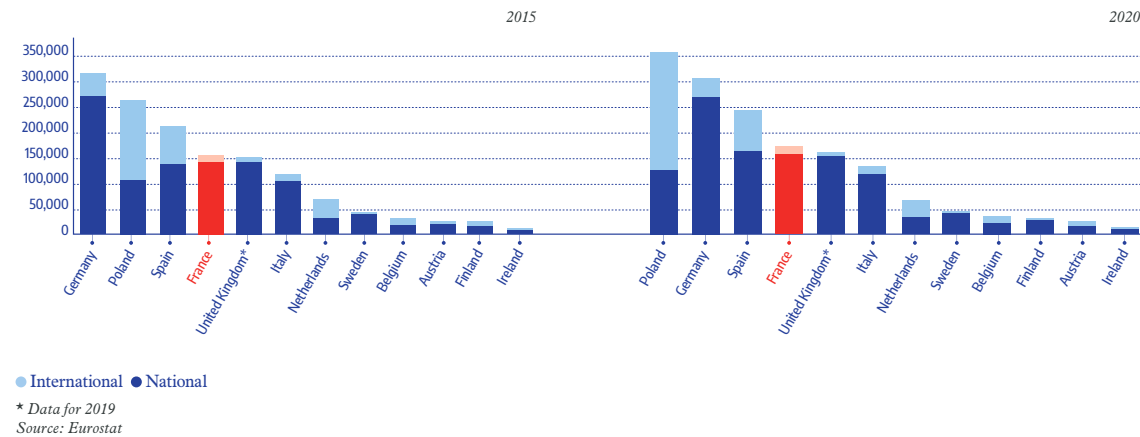


**France has an extremely dense domestic transport network**, with nearly 11,000 km (nearly 7,000 miles) of motorways, as well as a rail network of nearly 30,000 km (over 18,000 miles) and 8,500 km (4,590 nautical miles/5,280 miles) of navigable waterways.

**Transport infrastructure quality can be estimated using the volumes transported by each means of transport** (road, rail, sea, air). France is still very active in this area.

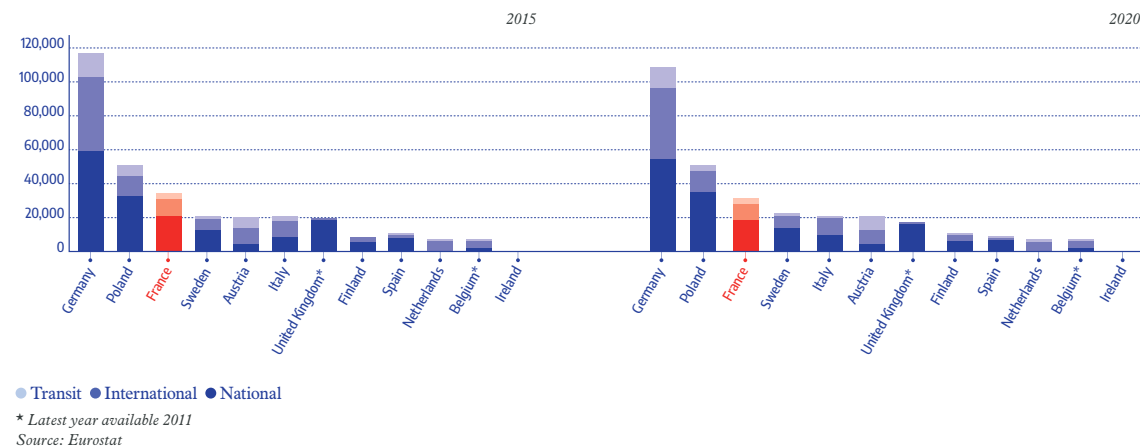
The volume of road freight is considerable. With 170,000 million tonne-km in 2020, France was ranked fourth among the European countries in the sample, after Poland, Germany and Spain.

FIG. 51

ROAD FREIGHT TRANSPORT  
TOTAL LOAD, MILLION TONNE-KM

Rail freight is also extensive in France. With nearly 31,000 million tonne-km transported in 2020, France was ranked third among the European countries in the sample, after Germany and Poland.

FIG. 52

RAIL FREIGHT TRANSPORT  
TOTAL LOAD, MILLION TONNE-KM

# Rail reform in France

The Rail Reform Act of June 27, 2018 set out a **new rail pact** in France, consisting of the modernization of the current system and the opening up of the network to competition.

The transformation of the former public railway group, comprising state-owned industrial and commercial establishments (*établissements public à caractère industriel et commercial* – EPICs), into a unified group comprising companies, has been effective from January 1, 2020.

This new organization aims to make the SNCF group more efficient,

competitive and integrated, while maintaining its public character. The national company SNCF, whose capital is wholly state-owned, now ensures the management of this new group.

The reform has also enabled the management of passenger stations to be reunified within the company SNCF Gares & Connexions, a subsidiary of SNCF Réseau.

The timetable for the opening of the network up to competition has been confirmed: from December 2020 for the TGV high-speed services; from December 2019 for TER regional

trains (the pace to be decided by each region, which can continue to award incremental contracts to SNCF until December 2023, valid for up to 10 years); and between 2023 and 2039 for the Transiliens and Île de France RER lines.

The opening up of the network to competition comes with assurances: employees, in the event of their jobs being transferred elsewhere, will keep their pay and benefits; services will continue to operate; and discounted fares (people from large families, disabled, etc.) will be maintained.

Sources: <https://www.gouvernement.fr/action/sncf-pour-un-nouveau-pacte-ferroviaire> and <https://www.gouvernement.fr/conseil-des-ministres/2019-06-03>

## Setting up a support strategy for the rail sector as part of the “Relaunch France” plan

Rail travel is an efficient alternative to road transport, both for passengers and for goods, as it contributes to reducing the transport sector’s carbon and environmental footprint. It is therefore important to improve the rail sector and its attractiveness.

France is resolutely committed to the fight against climate change and aims to be carbon neutral by 2050. The transport sector, which is one of the main emitters of CO<sub>2</sub>, will have to make a significant contribution towards meeting this objective. The “Relaunch France” plan has allocated €4.7 billion to the rail sector.

One of the aims of this investment is to modernize the national network, in line with the priorities set out in

the Transport Outline Act, so as to improve regularity (i.e. limit the number of incidents and subsequent delays) and safety (especially at level crossings) by taking into account various developments in technology (including the use of digital technology). An important part of this aim is to ensure continued protection of the environment.

It is also a question of reinvesting, together with the different regions, in the feeder railway lines across France to increase rail travel in less densely populated regions and better link them to urban areas, especially when no other suitable mode of transport exists. The real issues here are the opening-up of regions and finding regional balance.

This investment also aims to speed up work on the quality of reception in stations, in particular for access for people with reduced mobility, and to redevelop night train offers. The State has already initiated a major program in 2015 to renew the rolling stock of balance of regional trains (TET) for the amount of €3.5 billion. This program is expected to end by 2025.

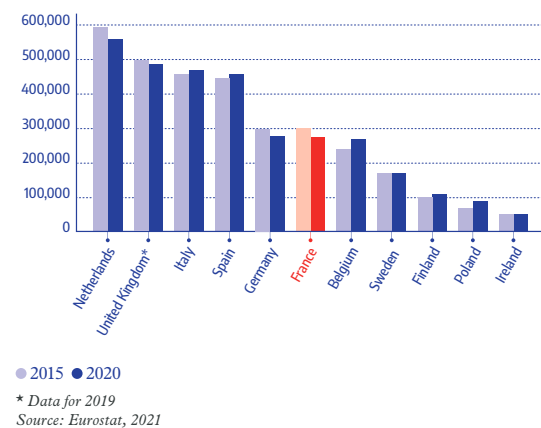
Lastly, the rail network aims to better support the transport of freight, so as to serve businesses, logistics hubs and ports as closely as possible under the right economic conditions.

In addition, under the new rail freight support plan, €170 million is being invested every year until 2024.

France also boasts a number of advantages in maritime transport. With 66 commercial maritime ports, and more than 500 decentralized ports, it is flanked by Europe's three large coastlines (the Atlantic, the Mediterranean, and the English Channel/North Sea) and enjoys access to three oceans (the Atlantic, the Indian, and the Pacific). In 2020, freight handled by French mainland ports approached nearly 275 million tonnes, ranking France sixth among European countries.

FIG. 53

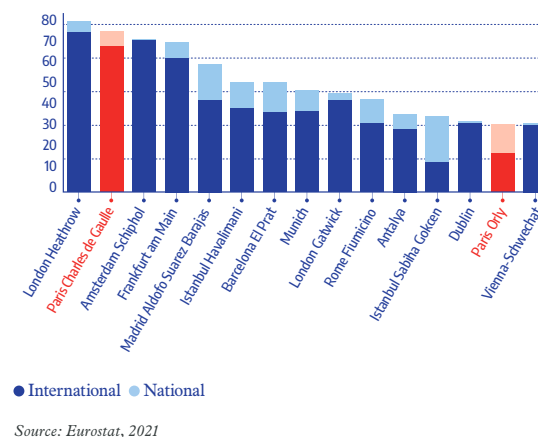
MARITIME FREIGHT TRANSPORT  
GROSS WEIGHT, THOUSAND TONNES



These land and maritime transport networks are supplemented by excellent airport infrastructure. Before the Covid-19 crisis, France had nearly 60 airports that each recorded more than 100,000 passenger movements per year. In 2019, two of Paris' airports were ranked in the top 15 airports in the EU-28, with Paris-Charles de Gaulle ranked second by passengers carried after London Heathrow.

FIG. 54

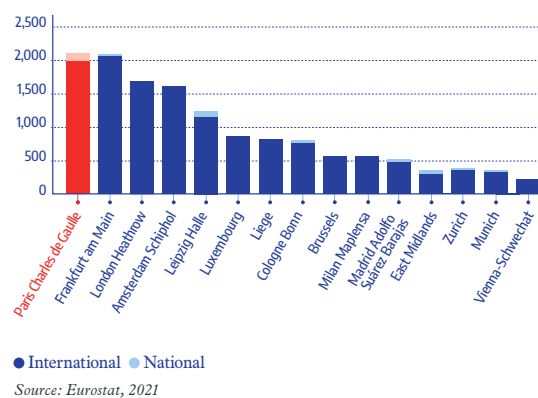
15 LEADING AIRPORTS IN EUROPE (2019)  
MILLION PASSENGERS CARRIED



Concerning cargo transport, Paris-Charles de Gaulle was ranked first among EU-28 airports in 2019, ahead of Frankfurt and London Heathrow by thousand tonnes of cargo and mail loaded and unloaded.

FIG. 55

15 LEADING AIRPORTS IN EUROPE (2019)  
THOUSAND TONNES OF CARGO AND MAIL LOADED AND UNLOADED



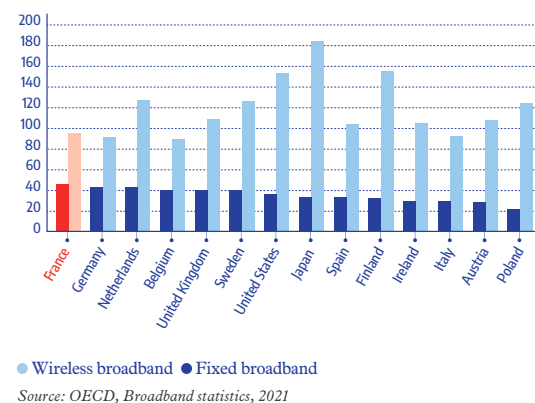
Telecommunications infrastructure

The broadband penetration rate is an indicator of a country's connectivity. France had the highest fixed broadband penetration rate among the countries in the sample, with 45.6 subscribers per 100 inhabitants. This rate is higher than in Germany (43.4), the United Kingdom (40.9), and the United States (36.5).

The disparities were more pronounced for wireless broadband connections, with 96 subscribers per 100 inhabitants in France.

FIG. 56

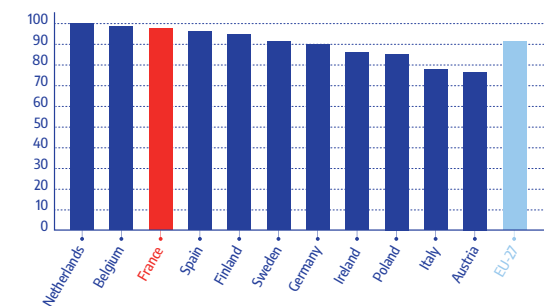
BROADBAND PENETRATION RATE  
(Q4, 2020)  
SUBSCRIBERS PER 100 INHABITANTS



Furthermore, the price of electronic communications are among the lowest in Europe. France is ranked fourth (second among our sample countries) in the index of prices calculated by the European Commission.

FIG. 57

BROADBAND\* PRICE INDEX (2021)



\* All baskets (score 0-100, 100 meaning the lowest prices)  
Source: European Commission, Digital Economy and Society Index Report 2021

# High-Speed Broadband France Plan

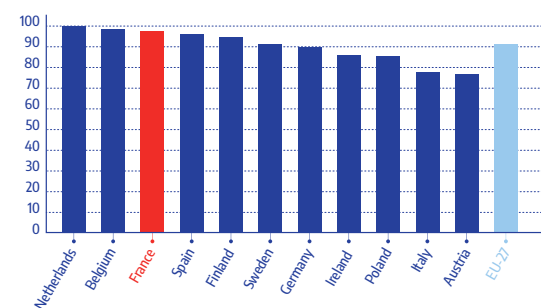
The High-Speed Broadband France Plan (*France Très Haut Débit*) is a national investment strategy to bring high-speed broadband (greater than 30 Mbits/s) to the entire country by 2022.

Launched in spring 2013, the decade-long program will receive investment of €20 billion, with the burden being shared between private operators, local authorities and central government. The intermediate target of reaching 50% of the population by 2017 was met by the end of 2016 (51.2%). France has just set itself the goal of rolling out ultra-fast fiber optic broadband across the country by 2025.

In 2020, fixed broadband subscriptions greater than or equal to 10 Mbits/s amounted to 97.3% of all subscriptions in France, higher than the EU-27 average (91.6%) and Germany (91.3%).

FIG. 58

SHARE OF FIXED BROADBAND SUBSCRIPTIONS ≥ 10 MBIT/S (JUNE 2020)  
%

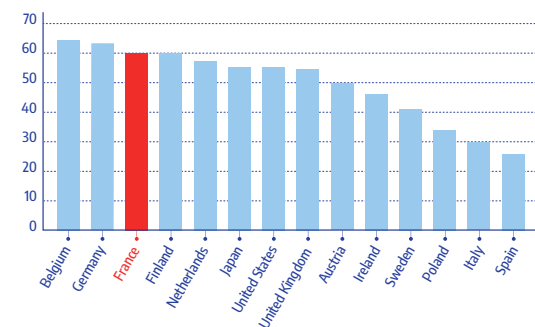


Source: European Commission Digital Scoreboard, 2020

France is making good progress rolling out IPv6 technology. According to Cisco, its IPv6 deployment ratio was 60.4% in November 2021, which places France third among the sample countries.

FIG. 59

IPV6 DEPLOYMENT\* (NOVEMBER 2021)  
%



\* Ratio calculated by Cisco to measure the deployment of IPv6 technology, taking into account the percentage of IPv6 prefixes, traffic, content and internet users.  
Source: Cisco, 2021

Business offices

The French business real-estate market is one of the most dynamic in Europe: Paris (center) was ahead of all major European cities in terms of transaction numbers in 2019, while three other French cities are in the league table (Lyon, Lille and Marseille).

FIG. 60

INDICATORS FOR LEADING EUROPEAN OFFICE PROPERTY MARKETS

	Transactions (sq. m.)		Vacancy (%)	
	2019	2018	Q4, 2019	Q4, 2018
Paris (center)	2,064,363	2,206,488	4.9%	5.5%
London (center)	1,147,084	1,400,461	5.7%	5.0%
Berlin	1,016,000	831,000	1.5%	1.7%
Munich	770,000	975,000	2.4%	2.3%
Birmingham	724,700	70,155	12.8%	12.4%
Frankfurt	635,000	678,000	6.8%	7.4%
Madrid	617,133	533,595	8.4%	9.6%
Warsaw	583,000	657,000	7.8%	8.6%
Brussels	514,680	361,423	7.1%	7.9%
Hamburg	512,000	563,000	4.1%	4.5%
Milan	488,087	389,530	9.8%	10.6%
Lyon	441,838	331,910	4.7%	5.5%
Barcelona	400,169	354,569	6.7%	8.8%
Budapest	361,980	385,787	5.6%	7.3%
Bucharest	329,519	292,019	10.5%	8.3%
Dublin	309,847	359,480	5.1%	6.4%
Prague	284,063	340,504	5.5%	5.1%
Amsterdam	282,387	377,798	6.2%	7.2%
Rome	272,619	172,529	8.0%	8.7%
Lille	264,106	277,691	4.7%	4.7%
Luxembourg	260,606	247,882	3.6%	3.7%
Vienna	220,000	270,000	4.7%	5.3%
Lisbon	188,527	206,428	4.8%	5.8%
Stockholm	165,900	180,750	5.5%	5.5%
Marseille	138,586	124,634	6.5%	6.1%

Source: BNP Paribas Real Estate, European Office Market 2020

Note: Transactions = surface areas for which a lease or a contract of sale has been signed.

# IPV6

IPv6 is the latest identification protocol for internet-connected devices, and is set to replace the previous system, IPv4. The latter remains in widespread use and has enabled some four billion addresses to be used. During the current transition period, due to last several years, the two identification systems will operate in tandem. Running IPv6-enabled infrastructure readies countries ahead of the exhaustion of IPv4 addresses.

For end users to be able to use IPv6, the websites they visit, their server and their internet service provider need to undergo a number of modifications. Cisco has devised a ratio to monitor the deployment of the protocol, which ranges from 0 (IPv6 not deployed) to 100. This ratio is a function of traffic, content and end users, and is calculated using the following formula:

$$\text{DeploymentRatio} = \frac{\% \text{TransitAS} + 3 \times \sqrt{\% \text{content} \times \% \text{user}}}{4}$$



## 2.5 ADMINISTRATIVE AND REGULATORY ENVIRONMENT

France's administrative and regulatory environment has become much more modern in recent years, following major reforms that are still ongoing. Thanks to its modern and efficient e-government services, the French government can now support private key players and individuals' projects more easily.

Proof of the impact of these reforms is that France's position is improving in international rankings concerning the administrative and regulatory environment. Despite its middle-ranking position among the major economies, France gained seven places for the regulatory affairs indicator in the Institute for Management Development (IMD) rankings on the competitiveness of economies, illustrating the strength of the reforms implemented over the last ten years.

The high number of new businesses reflects this new environment, whether in the economy as a whole or in manufacturing. France is ranked first in Europe for net business creation.

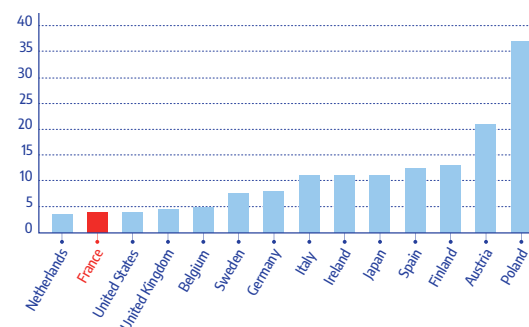
The IMD World Competitiveness Yearbook rankings assess the ability of 64 economies to maintain and boost business competitiveness. The report provides a detailed analysis of competitiveness across four pillars: economic performance, public sector efficiency, business efficiency and infrastructure.

In the 2021 edition, France was in 29th place (10th in our sample), up three places compared with the previous year. France moved up seven places for public sector efficiency, from 46th to 39th place, highlighting the impact of the measures put in place by the authorities in the last few years aiming to facilitate entrepreneurship in the country.

Furthermore, France is ranked 28th for the "regulatory affairs" indicator, with the United Kingdom in 14th position and Germany 24th. Within this indicator, France stands out in particular for the number of days needed to create a business (four days), which places France in second place among our sample countries for this category, ahead of the United Kingdom (4.5 days) and Germany (eight days).

FIG. 61

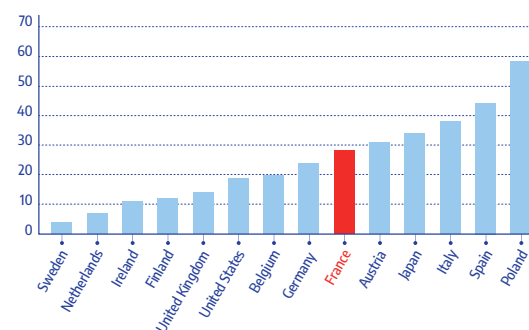
NUMBER OF DAYS NEEDED TO CREATE A BUSINESS (2019)



Source: IMD; World Competitiveness Yearbook, 2021

FIG. 62

RANKING FOR "REGULATORY AFFAIRS" (2019)



Source: IMD; World Competitiveness Yearbook, 2021

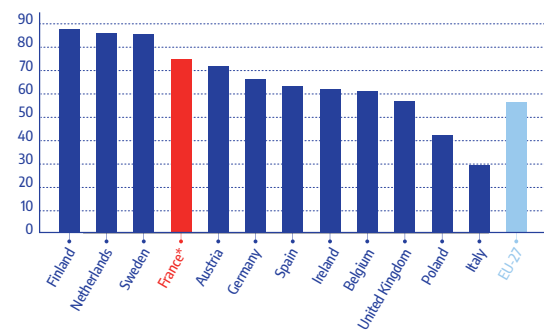
The modernity and effectiveness of the action taken by public administration plays an essential role in France's attractiveness and the economic development of each region. As such, the development of e-government (electronic or digital government) is another strength.

Numerous reforms have been undertaken in this direction since 2012, including the Corporate Simplification Act (2014), the Growth, Economic Activity and Equal Economic Opportunity Act (2015), the Reform of the Public Sector (2019) and the Acceleration and Simplification of Public Action Act (ASAP), which became law on December 7, 2020 (see boxes below). Finally, as part of the "Relaunch France" plan, up to €1.5 billion will be allocated to accelerating the digital transformation of administrations and local authorities.

The rate of online interactions between individuals and public authorities reveals the degree to which public services have been digitized. In 2019, 75% of individuals in France used the internet to interact with public authorities (compared with only 48% in 2008), one of the highest rates in our sample. France was ranked ahead of both the United Kingdom (57% in 2020) and Germany (66% in 2020), and above the EU-27 average (57% in 2020).

FIG. 63

INDIVIDUALS USING THE INTERNET TO INTERACT WITH PUBLIC AUTHORITIES (2020)  
%



\* Data for 2019  
Source: Eurostat, 2021

## Act of September 15, 2017, enabling the government to issue decrees to introduce measures enhancing social dialogue

The reform is based on three elements: safeguarding collective bargaining; simplifying and consolidating economic and social dialogue; and making working relations between employees and employers more secure.

**The decrees place an emphasis on collective bargaining, facilitating its development in micro-enterprises and SMEs** through specific measures (possibility of negotiating directly with an elected employee representative in companies with fewer than 50 personnel, or directly with employees in companies with fewer than 20 personnel; access to clear, digitized employment laws; a standardized form for dismissals; specific provisions for micro-enterprises and SMEs included in industry-wide agreements).

**Social dialogue has been simplified and rendered more operational by merging representative bodies into a single structure**, the Social and Economic Committee (*Comité social et économique* – CSE), for all companies with at least 11 employees. The agenda for collective bargaining (frequency, content, and level of consultations) can also be defined by the companies for up to three years.

To enhance their participation in the trade union, those involved in social dialogue now have further access

to vocational training and skills assessments to enable them to progress in their careers while being actively involved in the trade union.

In order to quickly adapt to changing market conditions, **businesses can now seek a majority agreement to make any necessary adjustments to working time, pay, and mobility to ensure their operational effectiveness and competitiveness.** If an employee refuses to comply with these adjustments, the employer can now resort to dismissal. This will not constitute dismissal on economic grounds, but will be a termination for cause. The employee will then receive a contribution of 100 hours to their personal training account from the employer.

To reflect more accurately the specificities of different industry sectors, **their branches have been assigned new powers.** The branches can now define the hiring and working conditions of employees as well as the guarantees that apply to them, in particular with regard to gender equality in the workplace. They can also specify the regulations governing fixed-term contracts, temporary contracts, and project-based contracts.

**Employment tribunal damages for unfair dismissal are now capped to**

provide greater security and visibility concerning the costs of potential litigation, while the period allowed for appeals has been reduced to one year. Moreover, **statutory compensation for dismissal has been increased by 25%.<sup>1</sup>**

Several measures also aim to make it easier to restructure companies and enhance France's attractiveness to foreign investors. **Recognized economic grounds for collective dismissals will now be defined at national level.** The presentation of redeployment offers has been simplified, thereby making redeployment procedures fairer and more transparent.

Finally, **collective contract termination agreements have been introduced**, allowing a common framework for voluntary redundancies to be defined through a collective company-wide agreement, thus avoiding the need to resort to job preservation plans and dismissals.

In order to take into account new working methods arising from new digital technologies, **it will now be possible to telework in a secure and flexible manner, promoting a better work-life balance.**

<sup>1</sup> Decree of September 25, 2017 on the re-evaluation of statutory severance pay.

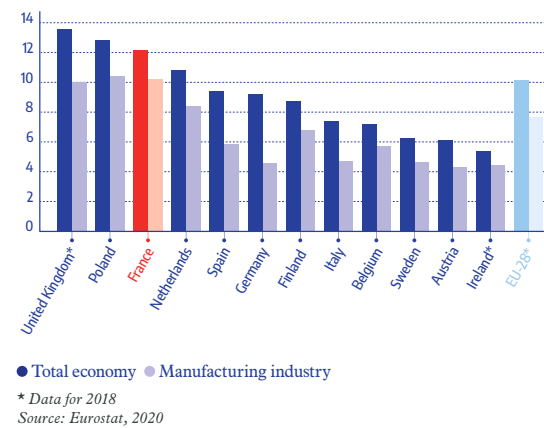
**Enterprise creation is buoyant in France. More than 500,000 businesses<sup>2</sup> were created in France in 2019, which is twice as many as in Germany (249,457 creations).**

The enterprise startup rate<sup>3</sup> across the whole of the French economy was 12%, and 10% in the manufacturing industry in 2019. Germany performed less well in this area, with a rate of 9.1% for the economy as a whole and 4.6% for the manufacturing industry.

**The total number of active enterprises in the economy as a whole increased sharply in France in 2019. The number of net enterprise creations<sup>4</sup> exceeded 270,000, or a net business growth rate of 6.8%. By way of comparison, this rate reaches 1.5% in Germany.**

In the manufacturing industry, the total number of active enterprises in France grew by 5.9% in 2019, or 16,168 net creations.

**FIG. 64**  
ENTERPRISE START-UP RATE (2019)  
%

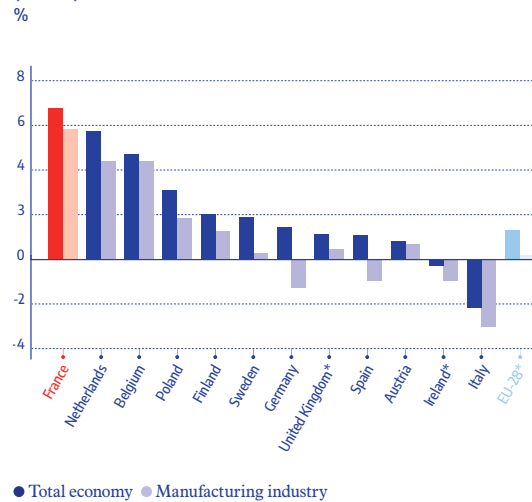


<sup>2</sup> INSEE announced 800,000 business creations in 2019, the difference in values coming from the fact that auto-entrepreneurs who hadn't started their activity were not included.

<sup>3</sup> This is the number of business creations during the reference period (t) divided by the number of businesses in t.

<sup>4</sup> Difference between the number of businesses created and failed businesses.

**FIG. 65**  
NET GROWTH IN ACTIVE ENTERPRISES  
(2019)  
%



Concerning the most recent data, the Banque de France noted in the October 2021 edition of its monthly business failure monitoring report that, despite the end of the support mechanisms, the default figures remain at a historically low level. Likewise, INSEE revealed that the number of enterprise creations year-on-year in October 2021 was up.

# The Act Enabling the State to Serve a Society of Trust

The Act Enabling the State to Serve a Society of Trust, passed on August 10, 2018, seeks to simplify relations between the administration and its users, boosting the latter's confidence.

This text is structured around two main principles; firstly, it creates a right to error for bona fide users in all of their dealings with the French administration. Thus, in the event

of a first breach of an obligation, the burden of proof is reversed: the onus is on the administration to demonstrate that the user acted in bad faith, and no longer up to the user to demonstrate their honest intentions.

The law also contains a series of measures intended to simplify administrative procedures and also allows for experiments. For example,

mediation was piloted at the URSSAF social security collection office in the Ile de France/Paris region, and following its success, has now been rolled out nationwide, thereby enabling its two million employers to quickly settle their difficulties amicably and avoid resorting to litigation.

Source: <https://www.modernisation.gouv.fr/home/loi-essoc-faire-le-pari-d'une-relation-apaisee-entre-les-usagers-et-leurs-administrations>

# Action Plan for Business Growth and Transformation (PACTE) Act

**The Action Plan for Business Growth and Transformation (PACTE) Act was definitively adopted by parliament on April 11, 2019 and was promulgated on May 22, 2019.** It aims to modernize companies' day-to-day operations, how they are funded and their role in society.

The ambition of this law for the government is to alleviate obstacles to growth of businesses at every stage of their development, from creation to transmission, passing by their financing. The PACTE Act modified statutory law – particularly the Civil Code and the Commercial Code – to introduce the right of corporate societal responsibility, notably through the integration of the notions of fundamental purpose and business with a purpose.

The main aims of the law are as follows:

- **To simplify the thresholds applicable to SMEs.**
- **To facilitate value-sharing incentive agreements** for businesses with fewer than 250 employees by eliminating the corporate contribution on voluntary and mandatory profit-sharing.
- **To rethink businesses' place in society.**
- **To set up a company 100% online** at less cost.
- **To facilitate judicial liquidation,** in terms of deadlines for and costs.

- **To bring public research closer to the business world** by renewing links between the public and private sectors.

- **To facilitate business transfers.**

- **To simplify and ensure the portability of pension savings products** throughout citizens' professional lives.

- **To support SMEs' export initiatives** through the creation of single regional windows.

- **To protect strategic national companies.**

Source: <https://www.economie.gouv.fr/plan-entreprises-pacte>

# Act to Transform Public Service

**The Act to Transform Public Service of August 6, 2019** aims to “build a 21st century public service, making it more agile, open and attractive, with more efficient public services operating closer to each region.”

**The main objectives of this text are:**

- To promote more strategic social dialogue in respect of guarantees of public agents.

- To develop managerial levers to make public action more reactive and more efficient.

- To simplify and guarantee transparency and equity in the management framework of public agents.

- To promote mobility and support professional transitions for public agents in public service and the private sector.

- To step up professional equality in public service.

The flagship measures adopted included merging the social dialogue bodies, creating a “project” fixed-term contract, recruiting by contract for permanent jobs (categories A, B and C) of the *Fonction Publique d'État* (FPE), and harmonizing working time to 35 hours per week.

Source: <https://www.fonction-publique.gouv.fr/loi-de-transformation-de-la-fonction-publique>

# The Act to Accelerate and Simplify Public Action (ASAP)

The ASAP Act, promulgated on December 7, 2020, aims to facilitate access to public services. It indicates concrete steps for several commitments made following the great national debate: it will bring the French administration and citizens closer together, facilitate the development of businesses and simplify the administrative procedures for individuals.

It aims to do the following:

- **Reduce the number of advisory administrative commissions.**
- **Make certain administrative procedures easier** for citizens.
- **Simplify certain procedures applicable to industrial facilities** in order to boost operations and employment across France's regions.

Source: <https://www.vie-publique.fr/loi/273138-loi-asap-7-decembre-2020-acceleration-et-simplification-action-publique>

## 2.6 FINANCIAL ENVIRONMENT

France has efficient market and post-market infrastructures, with Euronext, the clearing house LCH SA and the French depository bank Euroclear France, which belongs to the Euroclear group, a leader in the European market.

Paris's success as a financial center, along with recognized French financial expertise and the large number of corporate issuers to businesses, constitute a major component of France's investment attractiveness within the financial services sector.

The Paris market is largely characterized by strong financial intermediation: banks, insurance and asset managers. In addition, France has internationally recognized private equity players, and its venture capital industry, which plays a fundamental part in creating new businesses in innovative technology sectors, is particularly strong.

The Paris marketplace has confirmed its attractiveness for financial services on the Brexit front. From the arrival of the

European Banking Authority in the city's La Défense business district in 2019, to the relocation of operations and highly qualified staff from some of the largest global banks (HSBC, JP Morgan, Goldman Sachs, Morgan Stanley, Bank of America, etc.), as well as asset management companies such as BlackRock.

**According to data from the Banque de France, business access to credit was at a very high level in the second quarter of 2021. This reflects the take up by businesses of public support mechanisms, in particular the implementation of loans guaranteed by the State, to deal with the Covid-19 crisis.**

## QUARTERLY CORPORATE BANK LENDING TO BUSINESSES SURVEY

### Second quarter 2021, Banque de France

The Banque de France surveys companies every three months about their access to bank finance; approximately 4,000 SMEs and 500 mid-size companies took part in the latest survey, as did 2,500 micro-enterprises, through a partnership with the French Accredited Business Management Center Federation (*Fédération des centres de gestion agréés* – FCGA).

**Access to cash loans by micro-enterprises amounted to 79% in Q2, 2021** (share of businesses having obtained all or most of the desired loans), a marked increase compared with the level seen before the crisis (67% in Q3, 2019), but down compared with the peak of last year (90% in Q2, 2020).

**Furthermore, the rate of access to cash loans for SMEs stood at 87%**, even if it is lower compared with the previous year, when it peaked at 94% in Q2, 2020, the highest level since 2012.

**The rates of access to investment loans are at levels similar to those seen last year** (96% of SMEs, and 85% of micro-enterprises).

**Finally, the take-up rate of mid-size companies requesting new cash loans reached 83%, compared with 91% a year ago.** However, only bank loans are considered here; mid-size companies also have access to the private securities market, which offers them additional sources of financing not featured in this survey.

Source: Banque de France, "Access to credit for businesses", second quarter 2021

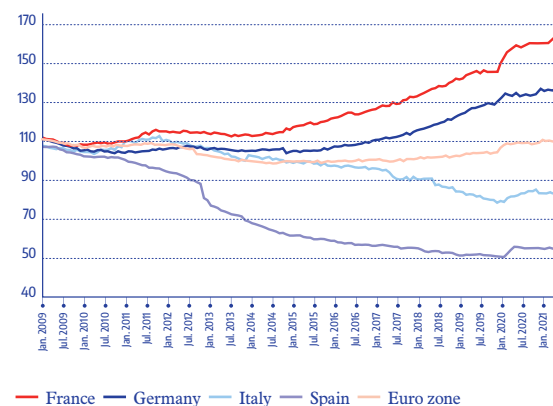


**Long-term data from the Banque de France confirm the good availability of bank credit for businesses in France:** loans held up well during the sovereign debt crisis in the euro zone and have been rising sharply since 2014. Conversely, the other main economies in the euro zone, apart from Germany, whose credit growth remains weaker than in France, experienced stagnation, or even a decline, in corporate lending.

Moreover, corporate financing benefits from very favorable conditions on the bond market, thanks to the persistence of a low interest rate environment. The introduction in April 2020 of loans guaranteed by the State immediately significantly lowered the average interest rate on loans to non-financial corporations with capital less than or equal to €1 million to 0.8%, versus 1.6% in March 2020. Average rates stabilized around 1.3% from August 2020, considerably lower than the euro zone average of around 1.8%.

FIG. 66

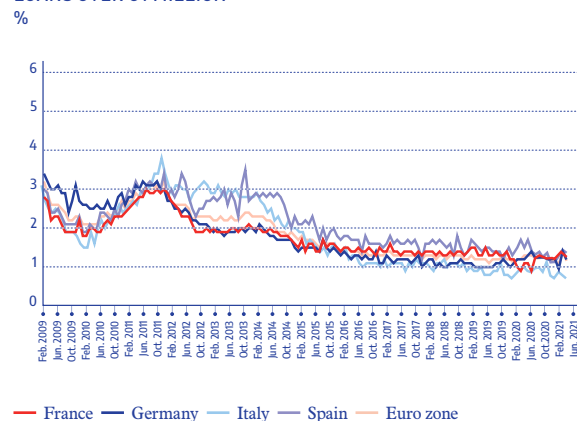
CHANGE IN LENDING TO NON-FINANCIAL COMPANIES IN THE EURO ZONE (2009-2021)  
INDEX 100 = DECEMBER 2007



Source: Banque de France, 2021; Business France calculations

FIG. 67

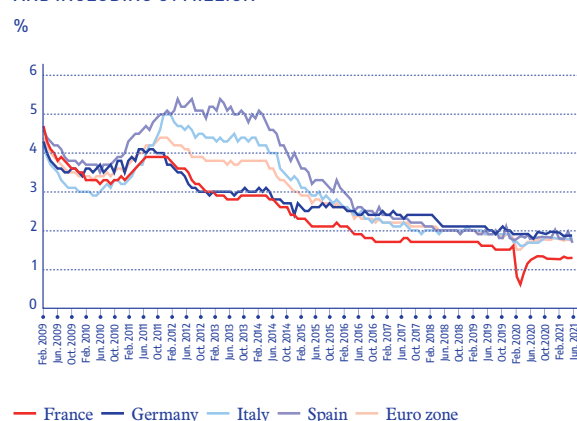
INTEREST RATES FOR LENDING TO NON-FINANCIAL COMPANIES (2009-2021)  
LOANS OVER €1 MILLION



Source: European Central Bank, 2021

FIG. 68

CHANGE IN ACCESS CONDITIONS TO BOND ISSUES AND BANK FINANCE (2009-2021)  
INTEREST RATES FOR LENDING UP TO AND INCLUDING €1 MILLION

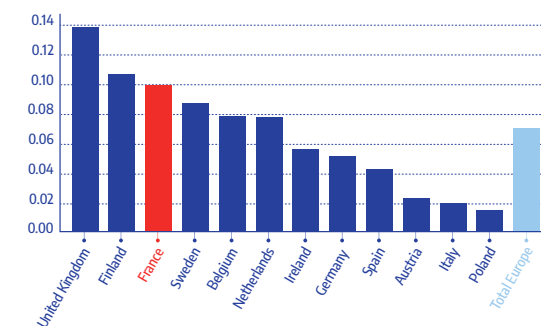


Source: European Central Bank, 2021

Furthermore, venture capital is a key strength for France, ranked third among the countries in our sample: venture capital investment amounted to 0.10% of GDP in 2020, a little less than in the United Kingdom (0.14%), but more than in the majority of the countries in the sample, including Germany (0.05%).

FIG. 69

VENTURE CAPITAL INVESTMENT (2020)  
% OF GDP



Source: European Private Equity Activity, 2020, Invest Europe (ex-European Venture Capital Association EVCA); Data based on Industry Statistics

Concerning financial markets, Euronext, which operates the marketplaces in Paris, Amsterdam, Brussels, Lisbon, Dublin and Oslo, continued its growth by buying the Milan Stock Exchange in April 2021. In December 2020, before the takeover, the stock market operator was already the sixth largest in the world and the largest in Europe by market capitalization, amounting to US\$5.4 billion, an increase of 15.8% year-on-year.

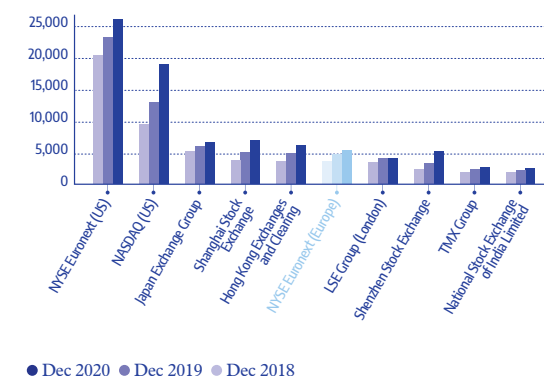
Asset management plays a major role in financing the economy, benefiting both growth and innovation. An economy with a developed asset management sector will ensure the strength and diversity of funding sources for its economy and its key players.

France is one of the leading countries in Europe for asset management. According to Willis Towers Watson, France concentrates 6.05% of the total of assets managed by the 500 largest investment funds in the world, and is ranked third in the world, after the United States (54.6%) and the United Kingdom (6.95%).

Moreover, according to data from the European Fund and Asset Management Association (EFAMA), France was ranked fourth in Europe in 2019 for net assets managed by investment funds domiciled in Europe (after Luxembourg, Ireland and Germany), with a market share of 11% (ranked third among countries in the sample).

FIG. 70

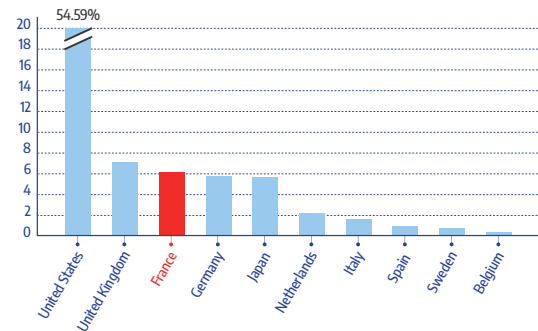
MARKET CAPITALIZATION OF THE 10 LEADING STOCK EXCHANGES  
US\$ BILLION



Source: World Federation of Exchanges (WFE), 2021

FIG. 71

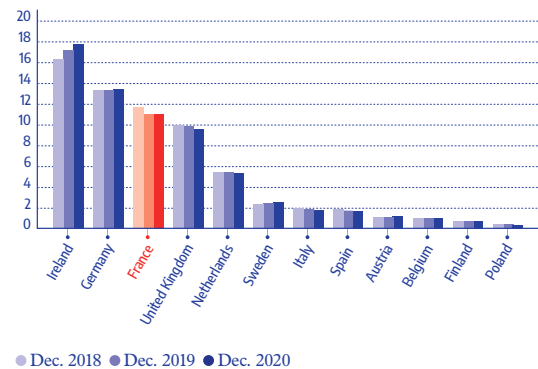
SHARE OF ASSETS UNDER MANAGEMENT (2019)  
COUNTRY OF DOMICILIATION OF INVESTMENT FUNDS  
% OF TOTAL ASSETS UNDER MANAGEMENT BY THE 500 LARGEST INVESTMENT FUNDS



\* Ireland, Austria, Finland and Poland all less than 0.1%, exact data unavailable  
Source: The World's 500 Largest Asset Managers, Willis Towers Watson

FIG. 72

MARKET SHARE IN EUROPEAN INVESTMENT FUNDS  
BY COUNTRY OF DOMICILE  
% OF ALL NET ASSETS MANAGED BY FUNDS DOMICILED IN EUROPE



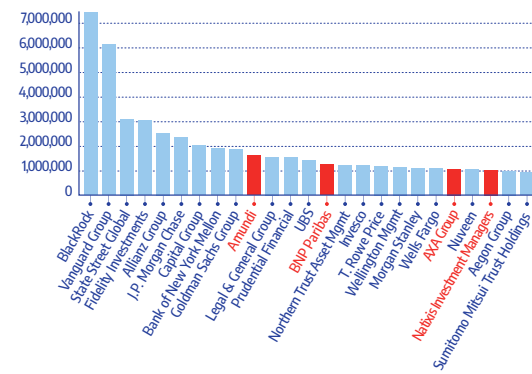
Source: European Fund and Asset Management Association (EFAMA), 2021

In 2019, France had four asset managers in the global top 25 (AXA Group, Amundi, BNP Paribas and Natixis). In addition to these are the dozens of “specialty shops”, whose investment thesis centers on innovative topics, such as socially responsible investment.

<sup>1</sup> According to Top Global Banks 2021, S&P Global Market Intelligence.

FIG. 73

WORLD RANKINGS OF ASSET MANAGEMENT COMPANIES (2019)  
TOTAL ASSETS BEING MANAGED (US\$ BILLION) – TOP 25

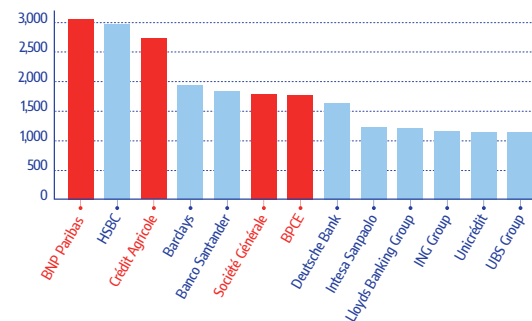


Source: The World's 500 Largest Asset Managers, Willis Towers Watson

Furthermore, the French model of universal banking, bringing together a wide range of jobs within the same institution, has proven its worth. France is home to four of the 10 largest players in Europe<sup>1</sup> (BNP Paribas, Crédit Agricole, Société Générale and BPCE), including two in the top three.

FIG. 74

EUROPEAN BANKING GROUPS  
TOTAL ASSETS (€ BILLION)  
DECEMBER 2020



Source: Top Global Banks 2020, S&P Global Market Intelligence

# Recent laws and government measures facilitating venture capital and lending to businesses

Several legislative measures have been passed in recent years to facilitate and support venture capital investment in France, and investment in SMEs in particular.

The 2015 Amended French Government Budget Act, which was revised in 2018, extended the “Madelin” incentive, which offers income tax relief following equity investment in non-listed SMEs: subject to certain conditions, the law provides for a reduction in income tax equivalent to 18% of the amounts invested (25% for investments made between May 9 and December 31, 2021 – an extension to 2022 is to be confirmed), up to €50,000 a year for a single person (or €100,000 a year for a couple); however, if the investment is made in an SME via a proximity or innovation mutual fund (FIP or FCPI), a single person can invest no more than €12,000 a year (or €24,000 for a couple). These tax breaks also count towards the overall cap on tax exemptions.

The 2014 Crowdfunding Act defined a simplified legal framework for crowdfunding. The main measures included the introduction of a crowdfunding investment advisor status (*conseil en investissement participatif* – CIP) for two types of existing operators (lenders and equity investors), loans from individuals limited to €2,000, no threshold for equity investments, and regulatory disclosures concerning the investors.

The 2016 Corporate Venture Investment Amendments enabled companies investing in innovative SMEs, or in mutual funds mostly invested in innovative SMEs, to write off their investments as tax over five years, subject to certain asset limits, by acquiring an equity stake of up to 20% in the SME.

The Action Plan for Business Growth and Transformation (PACTE) Act, promulgated in 2019, seeks to modernize the euro-croissance fund in order to strengthen the contribution of life insurance towards financing the economy and to offer broader investment possibilities. The reform facilitates the payment of life insurance contracts in securities or shares of venture capital funds, which will promote the development of these investments by insurers. It has also increased the list of funds eligible for life insurance, including professional private equity funds (FPCI), as well as the opportunities for investment in venture capital investment funds (FCPR).

In addition, investment management for retirement savings deposits will make it possible to direct them towards companies’ equity while ensuring a higher return for the saver. As a reminder, investment management consists of taking into account the investor’s investment time horizon. When retirement is a long way off, savings are heavily invested in equities, then gradually invested in guaranteed vehicles (funds in euros and euro-growth funds of insurance companies) or bond or monetary instruments.

Beyond these legislative changes, the “Relaunch France” plan, drawn up in response to the economic consequences related to the health crisis, has led to the creation of a “Relaunch” label, granted to investment funds participating in the recapitalization of French businesses, in particular SMEs and mid-size companies. This label should allow for savings to be directed towards equity investment, particularly towards private equity vehicles.

In November 2021, 205 investment funds, issued from more than 110 management companies, hosted this label. To incite savers to invest in these funds, “Relaunch France” also aims to significantly strengthen Bpifrance’s guarantee capacity that eligible private equity funds will be able to draw upon to finance non-quoted French SME stock. As such, if a company becomes bankrupt, the guaranteed funds invested shall be reimbursed for between 50% and 70% of the investment. This guarantee should cover €1.2 billion in investments.

## 2.7 COST OF LABOR AND TAXATION

The level of the cost of labor, the prevailing taxation regime on businesses, as well as the productivity of the workforce all have a strong impact on the competitiveness of an economy and its attractiveness.

Labor costs in France, while higher than the average across our sample, nevertheless correspond to one of the world's highest productivity levels (10th in OECD countries and sixth in our sample).

Furthermore, France has significantly improved its cost competitiveness since 2013 and growth in unit labor costs has been firmly under control, notably in industry, thanks to the introduction of the competitiveness and employment tax credit (CICE) and the Responsibility and Solidarity Pact.

The fall in labor costs was more pronounced thanks to the transformation of the CICE on January 1, 2019 into a permanent reduction of employer contributions, supplemented on October 1, 2019 by further lowering of contributions at the level of the minimum wage. Together, they allow France today

to display a very subdued cost of labor at minimum wage levels in an international comparison.

France is noteworthy for its relatively high level of compulsory social security contributions, which fund the country's system of public services. Lastly, France offers businesses the world's most beneficial tax treatment for research and development expenditure, thanks to the research tax credit.

### Labor costs

**Labor costs are one of the determinants of an economy's attractiveness for international investment. This cost is part of a set of factors, including labor productivity, which makes up an economy's productive capacity, as determined by the workforce used.** Changes in labor cost indicators over time is of paramount importance in international competition.

**Labor costs in France in 2020 were relatively higher than in the other countries in our sample:** on a national average, hourly labor costs reached €37.50 in France, compared with €36.60 in Germany and €28.50 in the EU-27.

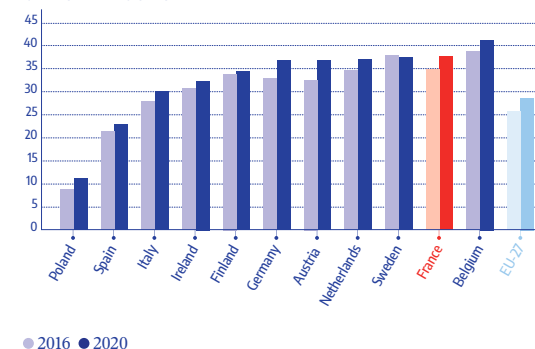
In industry, hourly labor costs were less expensive in France (€40.20) than in Germany (€41.80), while staying higher than the European average (€28.80). Within our sample, France was ranked in 10th place for labor costs in the economy as a whole and eighth in industry.

Short-time working in response to the health crisis has resulted in a rise in hourly labor costs in the euro zone. This rise has come about, firstly, from the part of short-time working benefit not covered by public administrations, integrated into the cost of labor while the number of hours worked falls.

Secondly, it comes from a composition effect. As employees most affected by short-time working are for a large part workers and employees whose hourly wages are among the lowest, the fall in the number of hours they have worked has led to a greater weighting of the highest wages. Comparisons with partner countries in 2020 are more a matter of the methodical differences in short-time working (eligibility conditions, range, duration, replacement rate) than structural changes.<sup>1</sup>

FIG. 75

### HOURLY LABOR COSTS € – TOTAL ECONOMY

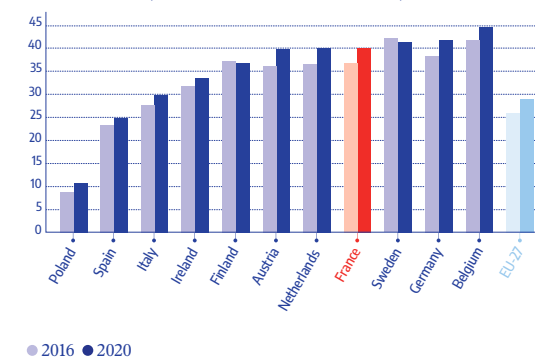


Source: Eurostat, 2021; historical data revised by Eurostat

<sup>1</sup> Nevertheless, changes in hourly labor costs in 2020 only slightly modified the rankings observed in 2019 and the rises in hourly costs remained limited in most economies.

FIG. 76

### HOURLY LABOR COSTS € – INDUSTRY (EXCLUDING CONSTRUCTION)

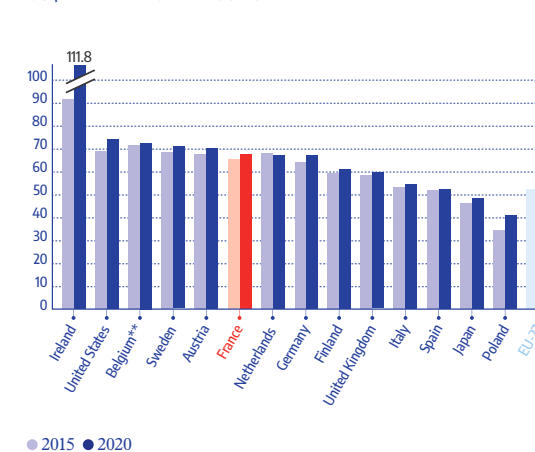


Source: Eurostat, 2021; historical data revised by Eurostat

**Nonetheless, labor costs must be appreciated in relation with hourly labor productivity, which is very high in France.** In 2020, it was €67.60, compared with €66.90 for Germany and €54.60 for the EU-27. France is thus ranked sixth in our sample (cf. Chapter 2.2 Education and human capital).

FIG. 77

### HOURLY LABOR PRODUCTIVITY\* US\$ AT PPP – TOTAL ECONOMY



Source: OECD, 2021

# METHODOLOGY

## UNIT LABOR COSTS AND COMPETITIVENESS INDICATORS

Cost competitiveness compares unit labor costs between different countries. **Unit labor costs** correspond to the cost of labor weighted by productivity. Unit labor costs are a measure of labor costs per unit of value added produced.

Changes in unit labor costs are determined by fluctuations in both workers' compensation, an increase in which causes unit labor costs to rise, and productivity, an increase in which causes unit labor costs to fall. If productivity increases more quickly than workers' compensation, unit labor costs decrease.

**Cost competitiveness** is defined as the relationship between unit labor costs in competing economies and those in France. The costs are measured in the economy as a whole, covering both sectors that export the most and sectors that are less open to international trade.

**Export price competitiveness** is defined as the ratio between export prices for foreign goods or services and that of French goods or services exports.

In these two cases, data from competing countries are aggregated using a weighting that is based on the importance of the market to France (proportion of total French exports) and the share held by the competitor country in this market.

**French price competitiveness** improves when French prices rise more slowly than foreign prices expressed in a common currency, which therefore includes the effect of the exchange rate. Besides currency, the difference between changes in cost competitiveness and price competitiveness lies in the changes in company profit margins. Taking advantage of lower costs, businesses can rebuild their margins before translating it into lower prices.

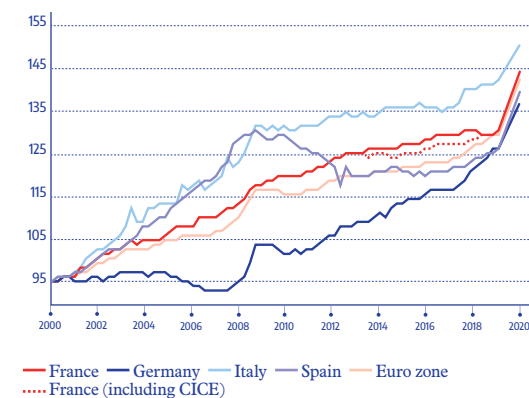
Two sets of competing countries are considered, on the one hand our main competitors in the OECD, and on the other hand, in a more targeted way, our main competitors within the euro area.

Unit labor costs (the cost of labor weighted by productivity) increased less quickly in France (+1% per year on average) than in Spain (+1.2%) and especially so in Germany (+2.4%) and the United Kingdom (+3.7%), where their growth was particularly strong between 2013 and 2020.

**In manufacturing industry, France recorded a slight rise in unit labor costs of +0.8% on average per year between 2013 and 2020.** By comparison, unit labor costs in manufacturing industry increased over the same period on average by +1.6% in Germany, +3.6% in the United Kingdom and +0.7% in the euro zone.

FIG. 78

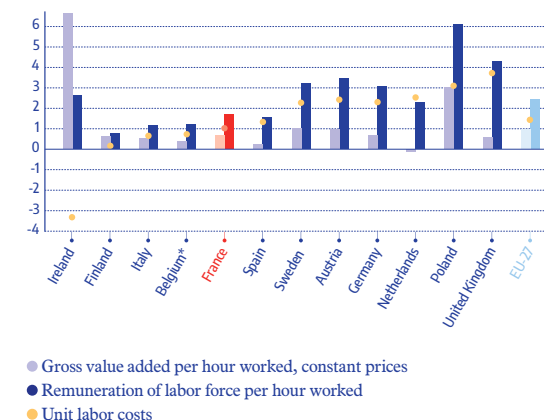
COMPARISON OF UNIT LABOR COSTS  
TOTAL ECONOMY  
100 = Q1, 2000



Source: Eurostat, 2021; DG Trésor calculations

FIG. 79

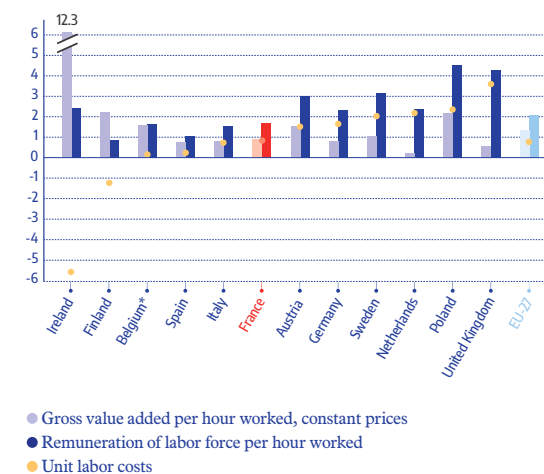
BREAKDOWN OF TRENDS IN UNIT LABOR COSTS  
COMPOUND ANNUAL GROWTH RATE (2013-2020)  
TOTAL ECONOMY



\* Data for 2020 not available  
Source: OECD, 2021

FIG. 80

BREAKDOWN OF TRENDS IN UNIT LABOR COSTS  
COMPOUND ANNUAL GROWTH RATE (2013-2020) - INDUSTRY



\* Data for 2020 not available  
Source: OECD, 2021



This restraint in rising labor costs since 2013 (cf. methodology above) has enabled France to improve its competitiveness.

As such, France's cost-competitiveness, measured as the relative change in unit labor costs in France versus competing countries, has improved compared with the rest of the euro zone since the end of 2013 (-5.9% in France, compared with +1.1% in the euro zone until the end of 2020<sup>2</sup>), helped in particular by the labor cost reduction measures introduced from 2013 onwards (see methodology above). It is the third best progression in our sample over the period, after Ireland and Sweden.

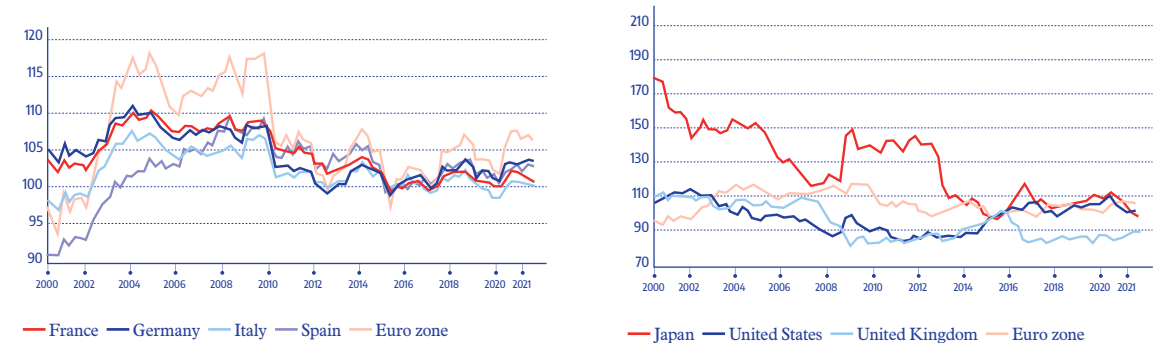
In the recent period, since the Covid-19 crisis, France was still benefiting from this upward trend. Indeed, since 2018 and until the end of the first half-year of

2021, among the large countries of the euro zone, cost competitiveness has increased the most in France (-3.6%), more so than in Italy (-2.4%), while it fell in Germany (+3.7%), Spain (+3.8%) and the United Kingdom (+10.7%). France has recorded the third largest increase in this period among our sample countries after Ireland and Poland.

France's price-competitiveness has also grown stronger with respect to its OECD partners due to the work by export businesses to rebuild their profit margins, following the significant advances made since 2000 (-1.4% in France, compared with +1.1% in the euro zone and +0.5% for Germany between the end of 2013 and the end of 2020).

FIG. 82

TRENDS IN PRICE COMPETITIVENESS (2005-2020)  
INDICES (BASE 100 = 2015)

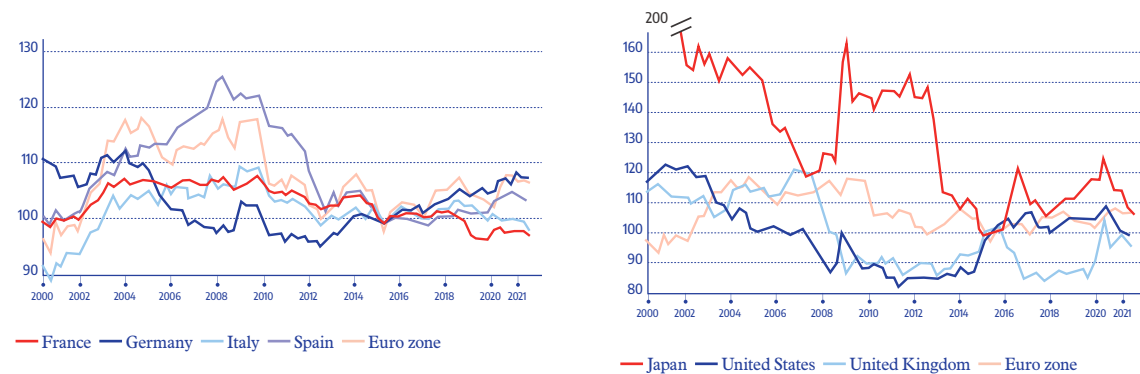


Source: OECD, 2021

NB: Increases in the indices represent declining cost competitiveness

FIG. 81

TRENDS IN COST COMPETITIVENESS (2005-2020)  
INDICES (BASE 100 = 2015)



Source: OECD, 2021

NB: Increases in the indices represent declining cost competitiveness

<sup>2</sup> A positive reading indicates declining cost-competitiveness and a negative reading indicates an improvement.



# Labor costs: Competitiveness and employment tax credit and responsibility pact

**The competitiveness and employment tax credit** (*crédit d'impôt pour la compétitivité et l'emploi*—CICE), introduced by Supplementary Budget Act No. III for 2012 and effective from January 2013, is a deferrable tax credit deductible against corporate income tax.

With effect from January 1, 2019, the competitiveness and employment tax credit was abolished and replaced by a 6% reduction in social security contributions for salaries below 2.5 times the statutory

minimum wage. To emphasize the lower cost of work for the less well paid, this transformation was accompanied by a further four-point reduction at the statutory minimum wage starting on October 1, 2019, on a declining basis up to 1.6 times the minimum wage.

**The responsibility and solidarity pact**, introduced in 2015<sup>3</sup>, includes a range of measures aimed at reducing the cost of labor and the tax burden on businesses. Under the cost of labor component, an initial tranche

was introduced in January 2015 targeting low salaries below 1.6 times the statutory national minimum wage, followed by a second tranche from April 2016 targeting salaries between 1.6 and 3.5 times the statutory national minimum wage. This component of the pact also included a reduction in self-employed social security contributions from 2015.

**The rise in French hourly labor costs** has slowed significantly since 2013 relative to the euro zone, thanks to the introduction of the competitiveness

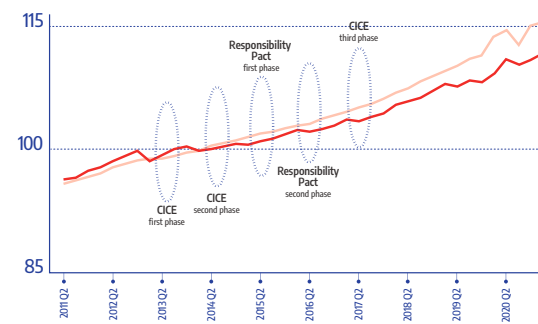
and employment tax credit and the responsibility pact. Between the fourth quarter of 2012 and the second quarter of 2021, the increase in labor costs in France was below the average increase for the euro zone as a whole, coming in at 11.5% in France, compared with 16.2% for the euro zone.

With regard to the minimum wage, the rate of employer contributions in France is among the lowest by international standards. Reductions in employer contributions have been stepped up in France in recent years, particularly for low-wage earners. In 2015, the Responsibility and Solidarity Pact (PRS), and then in 2019 the transformation of the competitiveness and employment tax credit (CICE) into a permanent reduction of employer contributions, supplemented on October 1, 2019 by further lowering of contributions, have resulted in significant reductions in the cost of labor, in particular at the minimum wage level.

These measures put France in an unusual position in international comparisons for labor costs: for median wages, France does indeed have one of the highest employer contribution rates, but this is not the case for low-wage earners, who benefit from these tax relief measures.

FIG. 83

LABOR COST INDEX  
INDUSTRY, CONSTRUCTION, SERVICES  
BASE 100 = Q1, 2014



— France — Euro zone (19 countries)  
Source: Eurostat, 2021; Business France calculations

FIG. 84

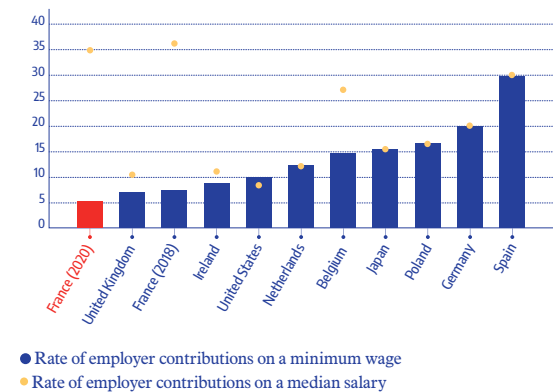
HOURLY LABOR COSTS  
MANUFACTURING SECTOR (EXCLUDING CONSTRUCTION)  
€

	2004	2008	2012	2016	2017	2018	2019	2020
Germany	30.3	32.5	35.2	38.4	39.5	40.4	41.4	41.8
France	29.5	33.1	36.4	36.8	37.4	38.4	39.1	40.2
Italy	22.3	24.2	27.2	27.5	27.7	28	28.8	29.7
Spain	17.9	20.8	23	23.2	23.3	23.4	23.9	24.9
Euro zone (19 countries)	24.3	26.9	30.5	31.9	32.6	33.3	34.1	34.8

Source: Eurostat, 2021

FIG. 85

RATE OF EMPLOYER CONTRIBUTIONS AT MINIMUM WAGE AND MEDIAN SALARY LEVELS (2020)  
% OF GROSS SALARY



● Rate of employer contributions on a minimum wage  
● Rate of employer contributions on a median salary  
Source: OECD, for the experts group on the statutory national minimum wage.  
NB: The situation for France in 2020 is after the general relief was further simplified (October 1, 2019).

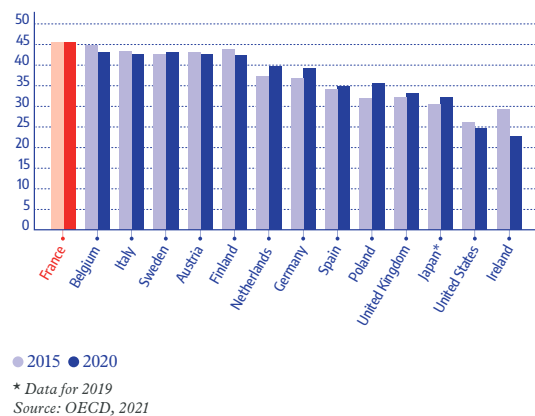
<sup>3</sup> Provision included in the 2015 Social Security Funding Act.

Taxation

The French tax system stands apart from other countries for the significant burden of social security contributions in compulsory deductions, reflecting the generous French public services model that they help to finance (see chapter 2.8 “Quality of life”).

Tax receipts amounted to 45.4% of GDP in France in 2020, according to the OECD publication *Revenue Statistics*, compared with 38.3% in Germany and 32.8% in the United Kingdom. However, the wide range of benefits funded by these taxes – infrastructure (transport, energy, telecommunications), healthcare, education, welfare benefits, culture, etc. – should be factored in when assessing these receipts (see chapter 2.4 “Infrastructures”, 2.8 “Quality of life” and 2.9 “Energy and green growth”).

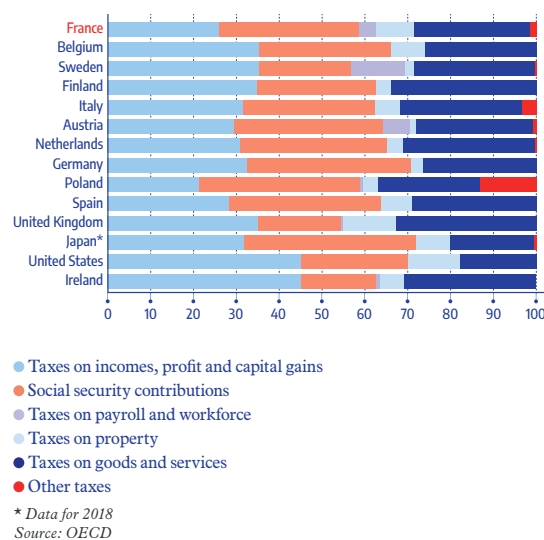
FIG. 86  
TAX RECEIPTS  
% OF GDP



In terms of the structure of tax receipts, social security contributions accounted for the largest share (32.8%) of the sources of French tax revenue in 2019.

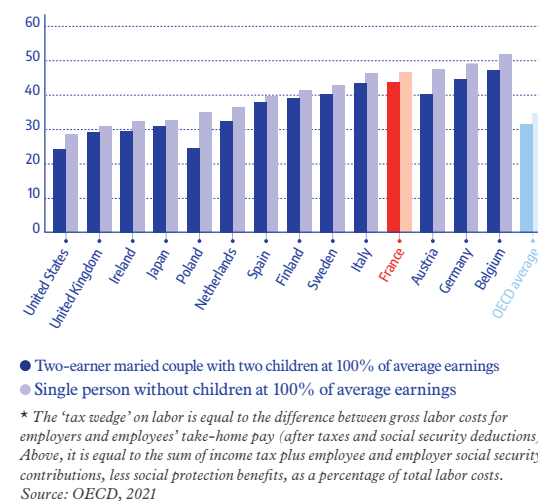
In terms of income tax, taxes on profits and capital gains (for individuals and companies), France offers the second lowest rates of imposition in the sample countries: 26.1% of total receipts in 2019. According to Eurostat, compulsory deductions without contributions imputed in France changed little in 2020, reaching 45.6% of GDP, second among European countries, just after Denmark (47.4%), compared with 40.6% on average in the euro zone.

FIG. 87  
STRUCTURE OF TAX RECEIPTS (2019)  
% OF TOTAL RECEIPTS



Concerning taxation of labor, Germany, Belgium and Austria imposed a higher tax burden than France on a single person without children earning 100% of average earnings in 2020. For a two-earner married couple with two children both at 100% of average earnings, Germany and Belgium both imposed a higher tax burden than France.

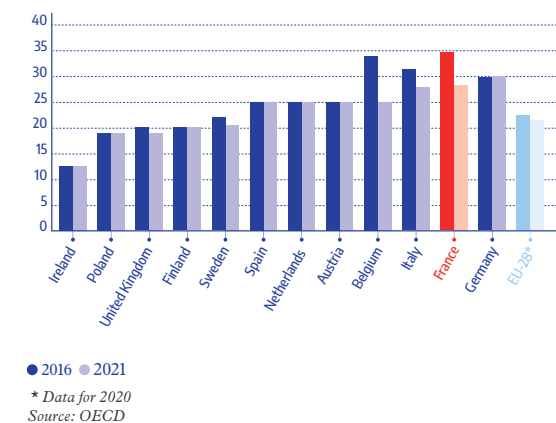
FIG. 88  
AVERAGE TAX WEDGE\* (2020)  
% OF LABOR COSTS



While the statutory highest marginal rates of corporate tax place France in a high position in 2021 (28.4%, or 27.5% excluding social security contributions), it is now lower than that in Germany. In recent years, corporate tax rates have fallen and a target of 25% (excluding social security contributions) has been set for 2022, meaning that France will then present a similar tax rate to Belgium, Austria, Spain and the Netherlands.

Moreover, led by the OECD, 136 countries have agreed to implement a worldwide tax of 15% on the profits of multinational businesses from 2023, as well as the introduction of a system to reallocate excessive profits made by multinational large businesses, in support of the countries where their activities are really carried out.

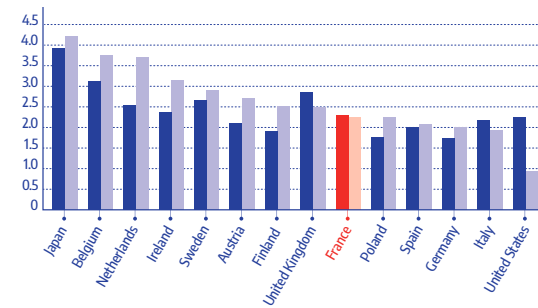
FIG. 89  
HIGHEST MARGINAL RATE  
OF CORPORATE TAX  
INCLUDING EXCEPTIONAL SURCHARGES  
%



The statutory highest marginal rates also need to be put into perspective when considering revenues related to corporate tax. **In 2019, corporate tax receipts accounted for only 2.2% of GDP in France**, similar to the level seen in Poland and slightly below that of the United Kingdom (2.5%).

This is partially a result of special treatment for SMEs<sup>4</sup> in France, which receive **reduced tax rates of 15% and 28% according to the amount of profits** (from €0 to €38,120, and from €38,120 to €500,000)<sup>5</sup>. France is renowned for having a high rate of corporate tax on large groups, but a narrow base, reduced by waivers and exemptions.

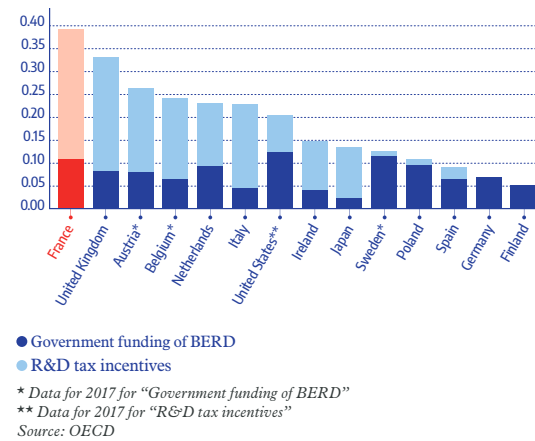
**FIG. 90**  
CORPORATE TAX RECEIPTS  
% OF GDP



● 2014 ● 2019  
Source: OECD

**Since reforming its research tax credit in 2008, France has offered businesses the most generous R&D tax treatment**, leading the way among OECD members for government funding of business enterprise R&D expenditure and R&D tax incentives, contributing an amount equivalent to 0.39% of GDP in 2018.

**FIG. 91**  
GOVERNMENT FUNDING OF BUSINESS  
ENTERPRISE R&D EXPENDITURE AND R&D  
TAX INCENTIVES (2018)  
% OF GDP

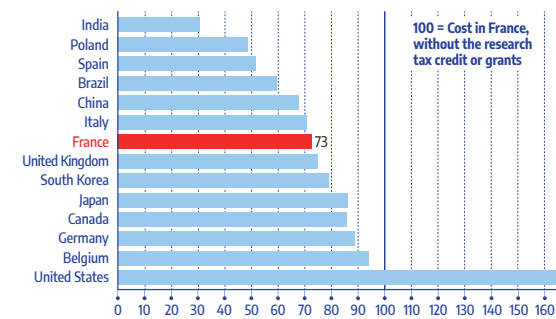


● Government funding of BERD  
● R&D tax incentives  
\* Data for 2017 for "Government funding of BERD"  
\*\* Data for 2017 for "R&D tax incentives"  
Source: OECD

**Thanks to the research tax credit, the average cost of employing a researcher is lower in France than in the United States, the United Kingdom, Germany, Australia, Canada and Japan**, according to the French National Research and Technology Association (ANRT).

Based on the companies examined, these estimates suggest that the research tax credit and associated grants reduced the cost of employing a researcher in France by 27% in 2019. According to the EY Attractiveness Survey 2021,<sup>6</sup> France is ranked first for the second year in a row for receiving international investments in R&D sites in Europe.

**FIG. 92**  
AVERAGE COST OF EMPLOYING  
A RESEARCHER AFTER INCENTIVES  
(2019)



Source: International comparison of the cost of a researcher – French National Research and Technology Association (ANRT), 2020

<sup>4</sup> Concerning SMEs, pre-tax revenues should be lower than €7.63 million and capital gains should be entirely distributed and held on at least 75% by private individuals (or by a company fulfilling this criteria). (Service-public.fr)

<sup>5</sup> Businesses recording revenues of at least €250 million benefit from a rate of 28% up to €500,000 and 31% above this sum. (Service-public.fr)

<sup>6</sup> EY Attractiveness Survey 2021, June 2021.

# Reform of France's research tax credit makes it the most effective R&D tax incentive in OECD countries

**The research tax credit (*crédit d'impôt recherche* – CIR) is France's flagship tax measure to encourage companies to expand their R&D operations.** All businesses with R&D operations located in France, regardless of their size or business sector, are eligible. **The French Government Budget Act for 2008 enhanced the research tax credit, transforming it into a very generous incentive and simplifying its administration.**

- The research tax credit is calculated solely on the basis of total R&D spending (after the abolition of the “increase-based” component, previously determined on the basis of the increase in a company's R&D spending).

- The research tax credit rate is set at 30% of eligible R&D expenditure up to €100 million, and 5% above this threshold.

- The amount of research tax credit awarded to companies rose from €1.8 billion in 2007 to €8 billion in 2019.

**In 2013, the innovation tax credit extended eligibility for the research tax credit to encompass innovation spending by SMEs.**

- For expenditure incurred after January 1, 2013, SMEs (as per the European Union definition) spending on innovation to fund projects to design prototypes, create new products or install pilot equipment are eligible for an

innovation tax credit of 20%.

- Eligible innovation expenditure is capped at €400,000 annually. Accordingly, the maximum tax credit a company can receive is €80,000 per year (400,000 x 20%).

It has also been made easier to obtain tacit approval: an advance ruling procedure (*rescrit*) can be initiated once R&D operations have begun but must be submitted at least six months before the research tax credit declaration is made.

## MEASURES TO IMPROVE BUSINESSES' COMPETITIVENESS IN THE “RELAUNCH FRANCE” PLAN

**A significant and lasting reduction in production taxes, which weigh on the competitiveness of our businesses (3.5% of GDP in 2019, compared with 1.7% on average in the EU), particularly in industry, has been implemented as part of the “Relaunch France” plan.**

*Aim: To specifically target the competitiveness of our industrial businesses and to facilitate growth and investment in our SMEs and mid-size companies, which create jobs across France's regions.*

The reduction in production taxes is based on three measures **(€10 billion per year, or €20 billion over the period 2021-2022):**

1. Business value-added contribution – **reduction by half for all businesses liable for this tax (€7.5 billion).**
2. Property taxes on completed properties (TFPB) and corporate property contribution (CFE) – **reduction by half of the property taxes for industrial establishments: -€2.0 billion in TFPB and -€1.8 billion in CFE.**
3. Local economic contribution (CET) – **lowering of the cap rate depending on value added, which would be reduced from 3% to 2%.**

**Strengthen the balance sheet of micro-enterprises, SMEs, and mid-size companies by using financial savings (€3 billion).**

*Aim: To restore the investment capacity of micro-enterprises, SMEs, and mid-size companies seeking to modernize French productive capacity.*

1. **A public guarantee may be granted to financial investments which will receive a “Relaunch France” label. This will select the most relevant funds for a sustainable recovery of the economy,** allowing everyone to direct their savings towards long-term financing, useful for SMEs and mid-size companies.

2. **A State guarantee will also be granted for €10 to €20 billion in equity loans for micro-enterprises, SMEs, and mid-size companies.** The banking networks will be able to grant equity loans, i.e. long-term loans, which will be subordinated and similar to quasi-equity finance.

3. **At the same time, Bpifrance will step up its corporate financing and the State will add to the investment funds set up by France's regional authorities.**

## Develop industrial production in France's regions

*Aim: To support investments that will allow France to maintain its economic and technological independence.*

**The “Relaunch France” plan will provide €1 billion to support investments by industrial businesses:** €600 million to support investment and promote relocation in five strategic sectors (healthcare, critical inputs for industry, electronics, food industry and industrial uses of 5G), and €400 million to promote the development of industrial projects across France in conjunction with the regional authorities.

## Invest in the technologies of the future

*Aim: The fourth National Investment Program aims to support significant investment in future technologies and will benefit from €11 billion by 2022*

1. **Fund special investments in a few industrial sectors or technologies of the future:** digital technologies, medical research and healthcare industries, low-carbon energies, responsible agriculture and food sovereignty, sustainable transport and mobility, cities of tomorrow, digital education, as well as cultural and creative industries.

2. **Guarantee long-lasting and predictable structural funding for higher education, research and innovation ecosystems,** to make France the best place in Europe for researchers and entrepreneurs.

3. The fourth National Investment Program will also intervene in equity, to support the structuring and growth of the business financing market for innovative companies through investment funds.

## ALL FRENCH PEOPLE SHOULD BENEFIT FROM THE “RELAUNCH FRANCE” PLAN, ESPECIALLY MICRO-ENTERPRISES AND SMES

Since micro-enterprises and SMEs account for one-third of all French businesses' revenues, the revival of our economy will depend on them having a sustainable economic recovery. Micro-enterprises and SMEs will thus directly benefit from certain measures, such as energy renovation, digitization of micro-enterprises and SMEs, creation of real estate to revitalize downtown businesses, and reductions in production taxes. These businesses will therefore directly benefit from important measures, including the thermal renovation of buildings, jobs for young people, etc. In all, more than €25 billion will benefit SMEs.

**ONE YEAR AFTER THE “RELAUNCH FRANCE” PLAN WAS LAUNCHED, €47.4 BILLION HAVE ALREADY BEEN ALLOCATED.**

# 2.8 QUALITY OF LIFE

Quality of life is a decisive factor when businesses are deciding where to establish themselves. It is essential for attracting skilled workers who are increasingly mobile between regions.

A few key indicators enable quality of life to be understood, such as life expectancy, access to healthcare, safety of people, and the availability of cultural activities. The level of spending in public services (education, healthcare, housing, transport, culture, etc.), and their quality and accessibility, is also telling.

In France, the public system offers a range of free, high-quality services, particularly in education and healthcare, while supporting household living standards. This means that France is one of the world's best countries in terms of access to healthcare, leisure time and personal time.

**Health and access to healthcare are among the primary determinants of quality of life. According to OECD data, life expectancy in France is among the highest in the world.** In 2019, France boasted life expectancy at birth of 83 years, ahead of the United Kingdom (81.4) and Germany (81.4). In addition, life expectancy at age 60 for women in France (28.2 years) is the third-longest of any country in our sample and that for men (23.6 years) the fourth-longest.

Healthy life expectancy becomes even more important as the average lifespan lengthens. France is ranked fifth in our sample for healthy life expectancy at age 65.

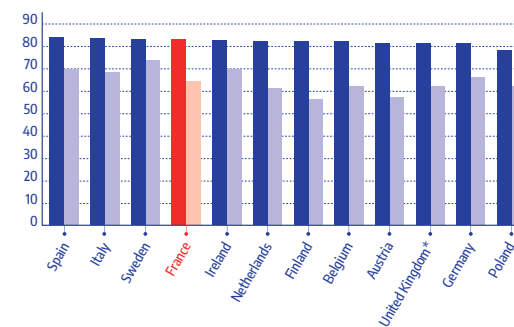
The quality of a health system will also largely depend on its affordability. This accessibility can be measured by the number of direct payments from households for health services. **This amount is particularly low in France, which is ranked second in our sample.**

In addition, a low level of out-of-pocket expenses reveals the level of financial support provided by the authorities for national health objectives and represents a major factor in residents' quality of life. A poorly accessible system will delay the decision to consult a health professional, which may have harmful health consequences, as well as financial consequences, due to late hospitalizations.

This very moderate level of out-of-pocket expenses for health services in France is explained by the high level of financial commitment by the public sector. **In 2019, public healthcare expenditure in France equated to 9.3% of GDP, i.e. 84.6% of total healthcare expenditure, with France boasting the third best public healthcare expenditure in our sample, after Sweden and Germany.**

FIG. 93

LIFE EXPECTANCY AND HEALTHY LIFE EXPECTANCY (2019)  
YEARS

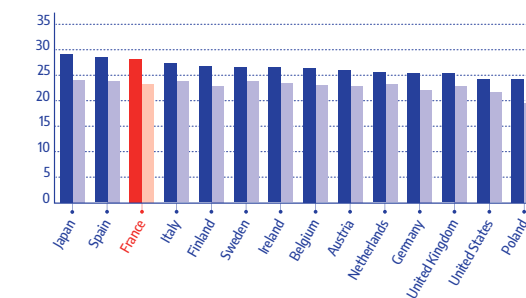


● Life expectancy ● Healthy life expectancy

\*Data for 2018  
Source: Eurostat

FIG. 94

LIFE EXPECTANCY AT 60 YEARS OLD (2019)  
YEARS

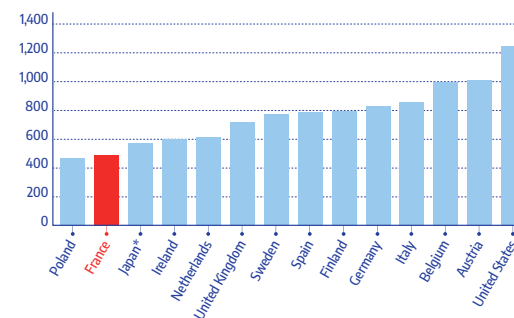


● Women ● Men

Source: OECD

FIG. 95

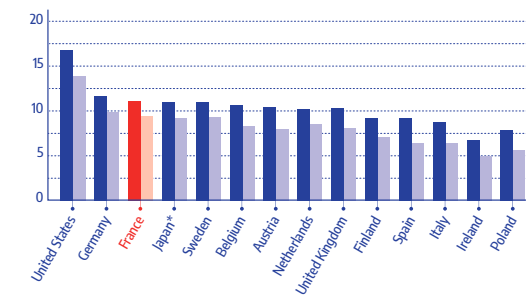
ACCESS TO HEALTHCARE (2019)  
PRIVATE OUT-OF-POCKET PAYMENTS PER CAPITA  
US\$ PPP



\* Data for 2018  
Source: OECD

FIG. 96

HEALTH SPENDING (2019)  
% OF GDP



● Total expenditure on health ● Public expenditure on health

\* Data for 2018  
Source: OECD



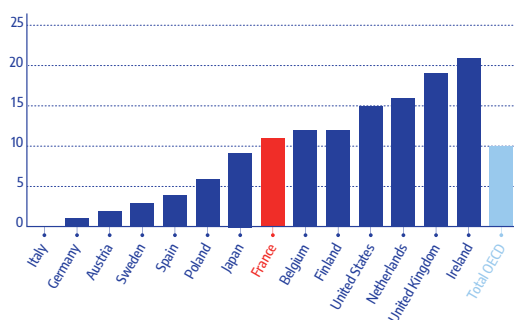
**Education and collective childcare provision are other fundamental aspects of the quality of life that a country offers.** Childcare services are affordable in France and allow parents to invest in their professional life. In 2019, 471,000 collective reception centers (crèches, kindergartens and daycare centers) were offered in France, including 10,900 places created since 2018, essentially micro-crèches in the private sector.<sup>1</sup>

In 2020, net expenditure for a household consisting of a couple and two children<sup>2</sup> who use childcare services reached 11% of the net household income in France, after Germany (1%), but ahead of the United States (15%) and the United Kingdom (19%).

**In 2018, 58% of children aged from zero to two were enrolled in formal or pre-school childcare.** This rate is among the highest in European OECD countries and on a level with the Netherlands (58%), but ahead of Sweden (46%), the United Kingdom (45%) and Germany (38%). For children aged three to five, pre-primary education from the age of three became compulsory in France in 2019, signaling a desire to fight inequalities from an early age. **One hundred percent of children aged three to five are enrolled in pre-primary or primary school in France,** which is at the same level as the United Kingdom and ahead of Germany (94%).

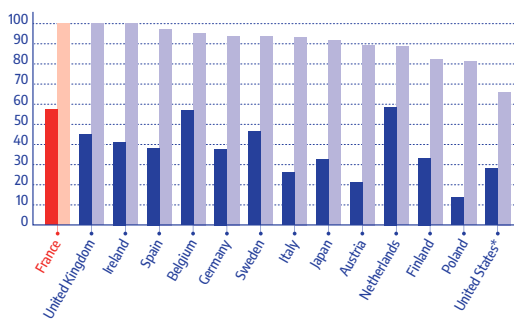
France's public sector commitment to education is substantial. **In 2018, 5.2% of French GDP was dedicated to education (including higher education, cf. Chapter 2.2),** with 88% of this amount publicly funded. Domestic expenditure on education came to US\$11,201 per student on average in primary and post-secondary levels (excluding higher education), which is higher than the OECD average of US\$10,661 per student. The average for a university student in France is US\$17,420.

**FIG. 97**  
NET CHILDCARE COST FOR PARENTS USING CHILDCARE (2020)  
FOR A COUPLE WITH TWO CHILDREN WITH AN INCOME EQUAL TO THE AVERAGE WAGE  
% OF NET HOUSEHOLD INCOME



Source: OECD

**FIG. 98**  
SCHOOL AND PRE-SCHOOL FOR CHILDREN AGED 0-5 (2018)  
% OF THE TOTAL OF EACH AGE CATEGORY



- Proportion of children aged 0-2 enrolled in formal childcare and pre-school
- Proportion of children aged 3-5 enrolled in pre-primary education or primary school

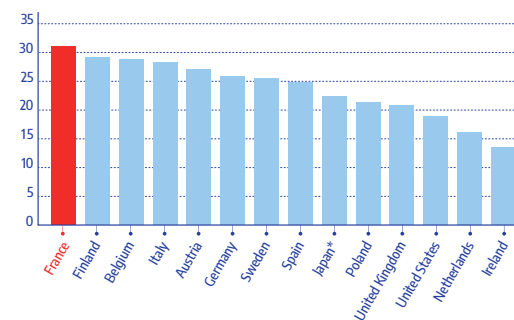
\* 2011 latest year available  
Source: OECD

**The social protection a country offers its residents takes a variety of forms: family allowances, paid leave, housing aid, unemployment benefits, etc.**

**Public spending on social protection** covers several categories of expenditure: family, housing, social exclusion, unemployment, old age and healthcare. They amount to 31% of GDP in France. This figure reflects the **high level of social protection enjoyed by French residents and places France in first place** in our sample for public spending on social protection, ahead of Germany (26%), the United Kingdom (21%) and the United States (19%).

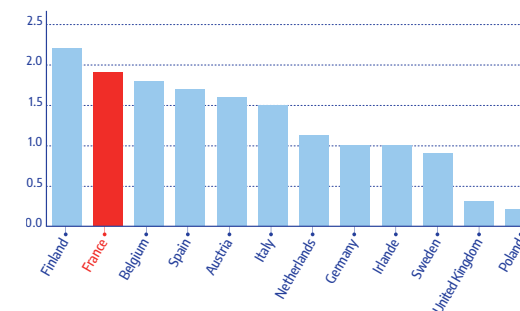
When it comes to public spending on social protection, France fares particularly well. It is ranked second in Europe for the share of GDP dedicated to unemployment benefits and active labor market policies (1.9% in 2018). Active employment policies financed more than 1.6 million assisted jobs in 2019 (in mainland France), for work-study students, professionals in training or resumption of studies, business creators, etc. It is also third for housing assistance (0.7% of GDP), as well as illness protection and healthcare (9.1% of GDP).

**FIG. 99**  
PUBLIC SPENDING ON SOCIAL PROTECTION (2019)  
% OF GDP



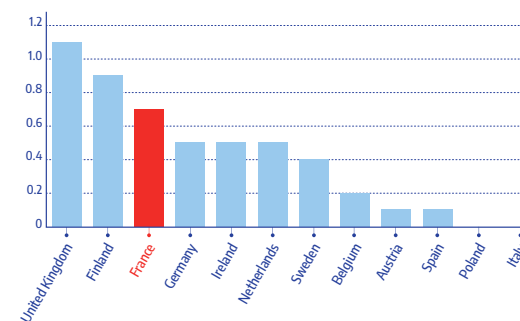
\* Data for 2017  
Source: OECD

**FIG. 100**  
PUBLIC SPENDING ON SOCIAL PROTECTION (2018)  
UNEMPLOYMENT AND ACTIVE LABOR MARKET POLICY  
% OF GDP



Source: Eurostat

**FIG. 101**  
PUBLIC SPENDING ON SOCIAL PROTECTION (2018)  
HOUSING ASSISTANCE  
% OF GDP



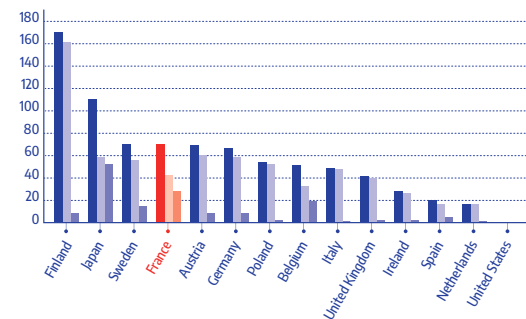
Source: Eurostat

<sup>1</sup> Report evaluating social security policy – Family, Bill to finance social security, 2022  
<sup>2</sup> For a couple comprising two adults receiving average earnings. (OECD data).

Another indicator which reflects the level of state support available to a country's families is the amount of paid maternity, paternity and parental leave for mothers and fathers. Cumulatively for mothers and fathers, this leave totaled 70 weeks in France in 2018, putting the country third in our sample, ahead of Germany (66.7), the United Kingdom (41) and the United States (no paid leave at federal level).

France is working for greater equality between women and men in terms of parental leave and has extended this from 14 days previously to 28 days for fathers (including three days payable by the employer) since July 1, 2021. France is therefore a pioneer compared with Germany (0 days of paternity leave) and the United Kingdom (one to two weeks in 2019).

**FIG. 102**  
PAID MATERNITY, PATERNITY AND PARENTAL LEAVE (2018)  
DAYS



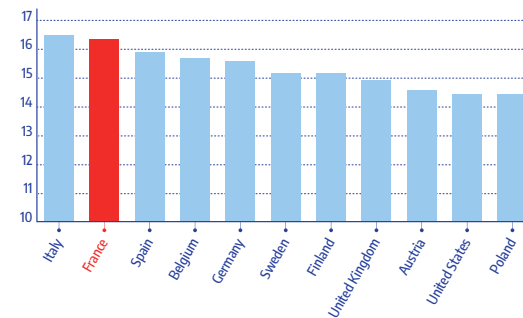
- Combined length of paid maternity, paternity and parental leave for mothers and fathers
- Length of paid maternity and parental leave for mothers
- Length of paid paternity and parental leave for fathers

Source: OECD; Business France calculations

**Leisure and culture are key elements in assessing a country's quality of life.** In 2019, the French spent more than 16 hours a day on leisure and on themselves, putting the country in second place in our sample after Italy. France came out ahead of Germany (15 hours 37 minutes), the United Kingdom (14 hours 55 minutes) and the United States (14 hours 26 minutes).

Finally, the level of public spending for culture and leisure confirms the steadfast commitment of citizens to quality of life in France, with France spending the equivalent of 1.4% of GDP on culture and leisure activities in 2019. It is ranked top in our sample for this indicator, far above Germany (0.9%) and the United Kingdom (0.6%).

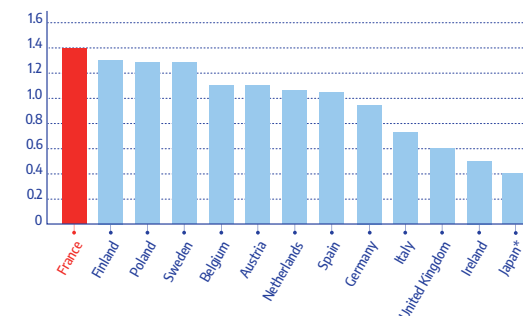
**FIG. 103**  
TIME DEVOTED TO LEISURE AND PERSONAL CARE (2019)  
HOURS PER DAY



Source: OECD, Better Life Index, 2019

The data for the Better Life Index 2019 are not comparable with previous editions. The data for the Netherlands, Japan and Ireland, only available for 2018, are therefore not offered for comparison.

**FIG. 104**  
PUBLIC SPENDING FOR CULTURE AND LEISURE (EXCLUDING R&D)  
(2019)  
% OF GDP



\* Data for 2018  
Source: OECD

**France offers its inhabitants an excellent quality of life, with easy access to healthcare, social protection, an effective education system and cultural activities.** This living environment is mainly funded through public spending, without penalizing residents' income or standard of living.

**As well as providing a social protection system that is solidarity based and accessible to all, France ensures residents have a high level of adjusted net income.** This indicator measures the maximum amount that a household can spend without getting into debt or reducing its wealth: it is all the income a household has before deductions (earnings, property income, etc.), adding social transfers in cash (social minima, family allowance, retirement pensions, unemployment benefit, etc.), and deducting direct taxes (tax on income and assets, social security contributions, etc.).

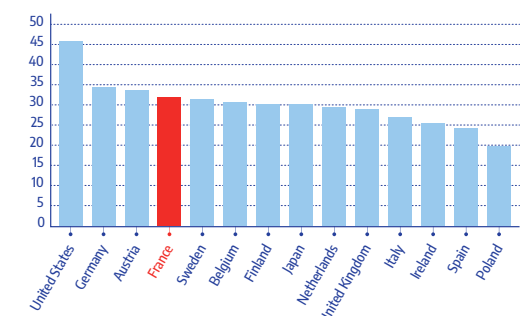
In 2019, France's average adjusted net disposable income came in at US\$31,304, after the United States (US\$45,284), Germany (US\$34,294), but ahead of Sweden (US\$31,287) and the United Kingdom (US\$28,715).

**In addition to the level of average disposable income per capita, it is important to assess how this income is distributed among households and to measure distribution inequalities.** Through a system of deductions and state aid, the French authorities actively participate in reducing inequalities to promote living together.

The Gini coefficient, which measures these inequalities (see methodology hereafter), was established in France at a level of 0.29 in 2019 after redistribution, i.e. a better level than the United Kingdom (0.34) and equivalent to that of Germany (0.30). The interdecile ratio of living standards (D8/D2), which is a measure of income distribution (see methodology hereafter) also places France (4.3) at a better level than Germany (4.9) and the United Kingdom (5.6).

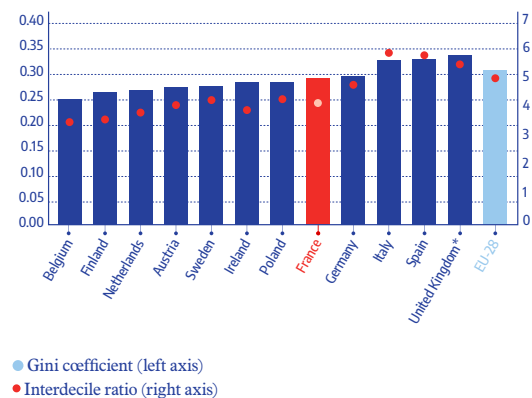
Lastly, the OECD calculates a monthly indicator of comparative price levels in member countries: based on a representative basket of goods and services, it can be used to obtain comparative price levels relative to a baseline country. According to this indicator, prices in Ireland, the United States, the United Kingdom and Finland are higher than in France, while prices are lower in Poland, Spain, Italy and Germany.

**FIG. 105**  
NET ADJUSTED HOUSEHOLD DISPOSABLE INCOME (2019)  
US\$ '000



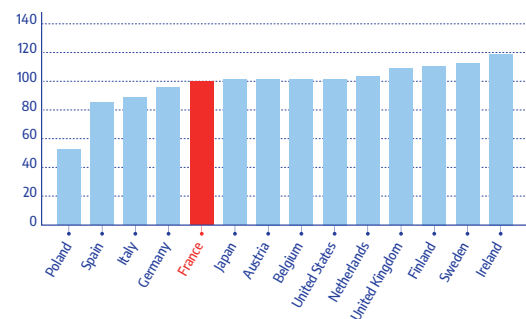
Source: OECD

FIG. 106  
INCOME INEQUALITY (2019)



\* Data for 2018  
Source: Eurostat

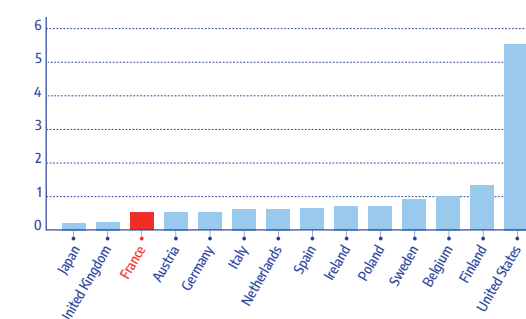
FIG. 107  
COMPARATIVE PRICE LEVELS (MAY 2021)  
€ PPP, FRANCE = 100



Source: OECD

The level of security of individuals in a society is also an important indicator to attract workers and their families. France is one of the safest countries in our sample and had one of the lowest homicide rates of any country in our sample in 2018.

FIG. 108  
HOMICIDE RATE (2018)  
RATIO PER 100,000 INHABITANTS



Source: OECD, Better Life Index 2019

## METHODOLOGY

### MEASURING LIVING STANDARDS DISTRIBUTION INEQUALITY

The Gini coefficient is used to measure the degree of overall living standards<sup>3</sup> inequality within a country. It ranges from zero to one, with zero indicating perfect equality, where each household receives the same income, and one indicating complete inequality, where all the income goes to a single household.

**The living standards interdecile ratio (P80/P20),** calculated as the threshold income of the highest 20% of living standards at the 80th percentile (P80) and the threshold income of the lowest 20% of living standards at the 20th percentile (P20). It measures inequality in that **the higher the income interdecile ratio is, the higher are income differences, and the more unequal incomes are distributed in society.**

<sup>3</sup> Living standards are equal to available income of a household divided by the number of consumption units (CU). Living standards are therefore the same for all individuals in a same household. CUs are generally calculated according to a modified OECD equivalence scale, which attributes one CU to the first adult of the household, 0.5 CUs to the other people more than 14 years old and 0.3 CUs to children aged less than 14 years old.

# Report by the Commission on the measurement of economic performance and social progress

Statistical indicators are important when it comes to designing and assessing policies seeking to ensure progress in society. However, disparities exist between the statistical measurement of socio-economic realities and the way that citizens perceive them.

In 2009, a commission chaired by Nobel prize laureate Joseph Stiglitz reported back to the President of France on possible avenues to improve the measurement of economic growth and correct the shortcomings of the long-criticized benchmark indicator, gross domestic product (GDP).

One of the distinctions the report made was between assessing present satisfaction and sustainable well-being. Present satisfaction is contingent not only upon financial resources, such as income, but also non-financial dimensions, including subjective perception and natural environment.

Although the full list of these aspects inevitably depends largely on value judgments, there is consensus that quality of life depends on health and education, conditions of everyday life (including the right to decent employment and housing),

participation in the political process, people's social and natural environment, and factors that define personal and financial security.

The commission also recommended establishing a series of indicators to give the measurement of well-being more importance in economic statistics.

In this context, and in recognition of its 50th anniversary, the OECD chose the theme "Better policies for better lives" and launched the "Your Better Life" initiative.

This is a new interactive index that enables each country to measure and compare its own quality of life by stepping outside the conventional GDP-based statistical framework. The index has 11 dimensions: housing, income, jobs, community, education, environment, governance, health, life satisfaction, safety and work-life balance – which can all be given their own weight in accordance with user preferences.

France obtains good results against numerous satisfaction indicators compared with most other countries.

**France is above the OECD average for the areas of housing, health, civic engagement, social links, work-life balance and safety.** It is at the OECD average level for more subjective satisfaction areas, such as the quality of the environment and education/skills, and below the OECD average for employment and salaries.

Among the leading variables are:

- In terms of health, life expectancy at birth in France is approximately 83 years, more than two years higher than the OECD average. Life expectancy with women was 86 years, against 79 years for men.
- In terms of the public sphere, the feeling of belonging and the degree of participation of citizens were high in France.
- Voter turnout – a measure of citizens' participation in the political process – was 75% during the most recent Presidential elections, higher than the OECD average of 68%. In France, voter turnout is estimated at 78% for the 20% most wealthy, against 70% for the 20% least wealthy. This difference is less big than the average gap within the OECD of 13 percentage points.

# UNDP Human Development Index

Every year since 1990, the UNDP Human Development Report has published the Human Development Index (HDI), an alternative to conventional development measures, focusing uniquely on income levels and economic growth rates. The HDI reflects a desire for a broader definition of well-being.

Drawing inspiration from research on the economy of well-being by the economist Amartya Sen, the HDI index was created to bring attention to the fact that the ideal measure of a country's development lies in the ability of people to act, not simply economic growth. The HDI can also be used to evaluate domestic policy decisions, by studying how two countries with the same per capita gross national income can produce such disparate levels of human development.

The HDI is a summary composite index that gauges a country's average achievements in three fundamental aspects of human development: a long healthy life (health), access to knowledge (education) and a decent standard of living (income).

In 2019, France's index score was 0.901, placing it among countries with a very high level of human development. France was ranked 26th in the world, after Germany (sixth place, with an HDI score of 0.947), the United Kingdom (13th place, with an HDI score of 0.932), and Spain (25th place, with an HDI score of 0.904), but ahead of Italy (29th place, with an HDI score of 0.892).

# “Ma Santé 2022”: A strategy to transform the healthcare system

The strategy to transform France’s healthcare system, dubbed “Ma Santé 2022”, was unveiled on September 18, 2018, by the French government and adopted by parliament on July 16, 2019.

The strategy aims to remedy the existing system’s lack of flexibility amid growing financial strain, with a focus on three key themes: putting patients and quality of care back at the heart of the system; responding to local care needs (by joining up non-hospital medicine, medico-social care and hospital medicine); and rethinking training and career paths for healthcare professionals.

Key measures included in this reform are as follows:

- **Putting in place fixed-price funding for hospital treatment of chronic pathologies**, including for example the hospital component of treatment for diabetes and chronic kidney failure.

- **Creating 1,000 local professional healthcare communities** (*Communautés professionnelles territoriales de santé* or CPTS), intended to cover the whole country by 2022 and to facilitate local coordination between healthcare professionals.

- **Developing medical assistants** working with independent medical practitioners, including conditional financial support, with the aim of freeing up medical time and enabling doctors to focus on delivering care.

- **Introducing a “local hospital” designation from 2020** to ensure local provision of hospital services, with a target of 500-600 designated hospitals.

- **Reforming the rules governing authorization of healthcare activities** organized at regional and local level, based on a graduated scale of care costs. This phased reform will result in new standards for certain activities with effect from 2020.

- **Creating a single “hospital practitioner” status** and scrapping the competitive examination for hospital practitioners.

- **Restoring the “collective” role of the health service** in organizing healthcare services and managing care personnel.

- **Increasing doctors’ involvement in running hospitals.**

- **Scrapping the numerus clausus system and overhauling the first stage of medical studies curricula** to open them up to a more diverse range of students and to create gateways between healthcare careers.

- **Reforming the second stage of medical studies curricula and scrapping national ranking examinations**, adopting an approach based on students’ skills, ability and career goals.

Source: French Ministry for Solidarity and Health.

# Poverty prevention and reduction strategy

The national strategy for preventing and combating poverty, unveiled by the French President on September 13, 2018, aims to “build a 21st century welfare state” that can combat inequalities of birth and provide real equality of opportunity. A total of €8.5 billion will be spent on this five-year strategy, to which many contributions have been added through the “Relaunch France” plan.

A second progress report on the implementation of this plan was published in October 2021, enabling us to view the progress made in implementing the strategy, despite delays due to the Covid-19 health crisis.

This strategy of poverty prevention and reduction has several aims:

- **Strengthening equality of opportunity from early childhood onward.** The aim is to offer all children a framework for socialization, encourage social diversity and improve the educational quality of care for young children, with a particular emphasis on vulnerable areas. Nearly 9,000 crèche places have been created since 2018, including 17% in priority areas. A one-off support payment was also made during the health crisis to more than four million low-income families.

- **Guaranteeing children’s fundamental rights.** A balanced diet for all is targeted thanks, among other things, to the distribution of breakfasts in schools in disadvantaged areas and the establishment of more affordable canteen prices. At the start of the 2021 school year, 1,000 municipalities had signed up to this initiative in nearly 3,000 schools, with a target of making 300,000 pupils immediately benefit. Specific programs have also been developed to ensure decent accommodation for all children, as well as to get those involved in begging off the streets.

- **Supporting young people and insuring them a guaranteed educational pathway.** The goal is to invest significantly in education and training for young people and support those at risk of dropping out of the education system. The minimum age at which a child can leave full-time education will therefore be raised to 18. During the Covid-19 lockdowns, priority neighborhoods also received additional equipment to fight against school dropout rates. Some €9 billion have been allocated to the “One Young Person One Solution” initiative, which is part of the “Relaunch France” plan, to support young people whose entry into working life has been impacted by the health crisis.

- **Healthcare coverage has been extended**, with the “100% santé” reform as well as the complementary health programs.

- **Bringing a monetary solution to the least well-off by proposing the creation of a guaranteed income for all.** This involves turning the basic welfare payments into a single allowance, to make the system more efficient, fairer and simpler.

- **Helping everyone to gain employment with the creation of a public integration and employment service (SPIE) is another of the government’s aims.** From January 2022, there will be 80 *départements* involved in the deployment of this service. A “job for all” initiative must therefore combine enhanced social support and integration into employment for 300,000 people per year, with 100,000 additional employees benefiting from integration through economic activity geared towards the most vulnerable people. In addition, many successful experiments have been extended, including the “Zero long-term unemployment zone” program.

Source: [https://solidarites-sante.gouv.fr/IMG/pdf/bilan\\_national\\_-\\_3\\_ans\\_pauvrete-\\_oct21-v5\\_1110.pdf](https://solidarites-sante.gouv.fr/IMG/pdf/bilan_national_-_3_ans_pauvrete-_oct21-v5_1110.pdf)



## 2.9 ENERGY AND GREEN GROWTH

Environmental protection and green energy production have become essential challenges for all types of industry. The capacity to secure reliable and cheap energy sources, as well as the development of renewable energies, are all key elements of economic attractiveness.

Beyond the environmental issue, green growth also represents a strong economic interest because it brings many opportunities for technological development and jobs.

France guarantees a stable and attractive price for electricity to businesses, while increasingly developing green energy sources that do not emit CO<sub>2</sub>.

### Competitive and stable electricity prices

**The attractiveness of a country depends partially on its capacity to provide businesses with access to reliable sources of energy that are competitive in the long run.**

**In France, electricity rates are particularly attractive for businesses<sup>1</sup> and are among the most competitive in Europe, after the Nordic countries.** The differences in the rates paid by French businesses that consume a lot of energy and those of other European countries can be explained notably by advantageous taxation that applies in France, as well as low network costs.

Moreover, French consumers benefit from access to some of the nuclear energy generated at capped rates (Regulated Access to Historic Nuclear Energy – ARENH),<sup>2</sup> which limits the effect of rising electricity rates on the cost of supply to French businesses. The variability of electricity rates in France is also very low.

In the European Union, France stands out for the original nature of its energy mix. The predominance of nuclear energy, which accounted for 66% of the electricity produced in 2020, has enabled France to have competitive, low-carbon electricity and insured the country's energy independence.<sup>3</sup>

France is also conspicuous in Europe for having particularly low electricity rates. It is ranked second, after Finland, for the cost of electricity for non-residential customers for consumption between 70,000 MWh and 150,000 MWh, also showing it is very competitive for other levels of consumption.

Moreover, electricity rates in France are stable, with very limited variability for all levels of consumption, particularly the highest.

FIG. 109

**ELECTRICITY RATES (H2, 2020)  
NON-RESIDENTIAL CONSUMERS, BY LEVEL OF CONSUMPTION  
RATE INC. VAT (€/KWH)**

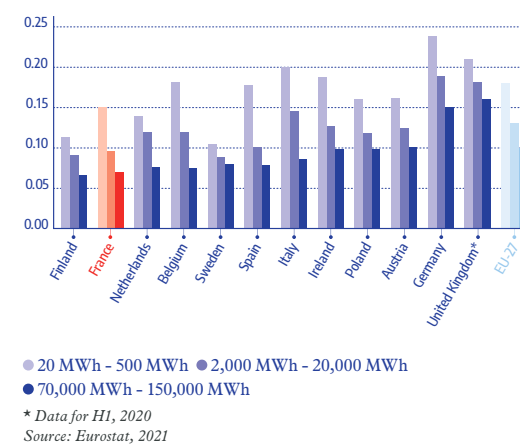
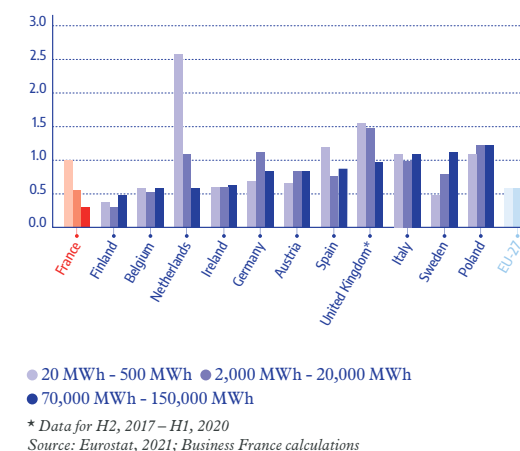


FIG. 110

**VARIABILITY OF ELECTRICITY RATES  
(H2, 2017 – H2, 2020)  
NON-RESIDENTIAL CUSTOMERS, BY LEVEL OF CONSUMPTION  
STANDARD DEVIATION (%) OF RATES INC. VAT**



<sup>1</sup> In 2019, according to the Ministry for the Ecological Transition (Key Energy Figures – 2020), electricity was the leading energy form consumed in industry (39% of energy consumed in this sector), the residential sector (34%) and the tertiary sector (49%).

<sup>2</sup> Regulated Access to Historic Nuclear Energy (ARENH), introduced by the New Organization of the Electricity Market (NOME) Act in 2012, enables electricity suppliers to provide themselves with nuclear electricity through Électricité de France (EDF) at the price of €42/MWh, up to a limit of 100 TWh.

<sup>3</sup> International Energy Agency.

### Carbon-free French energy

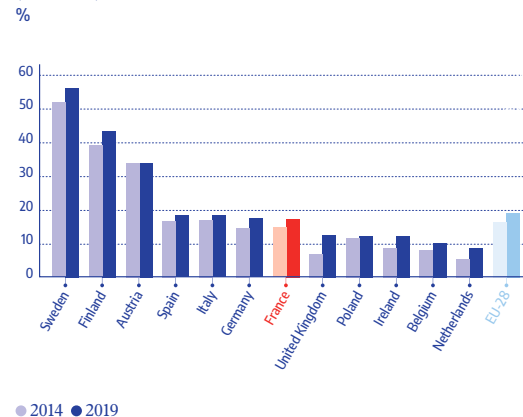
In order to limit greenhouse gas emissions, countries are all engaged in a process of replacing carbon sources with renewable energies.

In EU-28 countries, the share of renewable energies in gross final energy consumption reached 18.9% in 2019 (more than 2.5 percentage points higher in five years).

Sweden stood out from other countries, with renewable energy accounting for a very high proportion of its gross final energy consumption (56.4% in 2019). In France, this contribution amounted to 17.2% in 2019, similar to that of Germany (17.4%), but higher than that of the United Kingdom (12.3%).

FIG. 111

#### SHARE OF RENEWABLE ENERGIES IN GROSS FINAL ENERGY CONSUMPTION (EU-28)



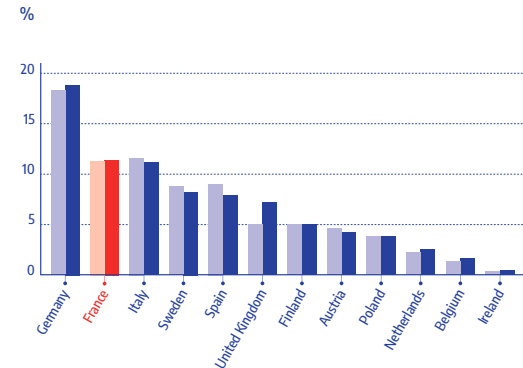
● 2014 ● 2019

Source: Eurostat, 2021

In 2019, France was Europe's second largest producer of primary energy drawn from renewable sources, representing 11.4% of the EU-28 total. It is preceded by Germany, which contributed 18.9% to renewable energy production in the European Union.

FIG. 112

#### PRIMARY ENERGY GENERATION FROM RENEWABLE SOURCES SHARE OF EU-28 TOTAL



● 2014 ● 2019

Source: Eurostat; Business France calculations

## European Union Climate Action / European Green Deal

The European Union has made several commitments to successfully transition to a low-carbon economy. These commitments are particularly focused around two key dates, 2030 and 2050,<sup>4</sup> with a target of making the EU the leading continent to be neutral for the climate by 2050.

In 2018, the European Union definitively adopted a series of legislative texts offering a framework for climate and energy by 2030, which applies from 2021. This strategy sets out three main objectives to be accomplished by 2030: (i) Reducing greenhouse gas emissions by 40% (compared with 1990 levels), a target set out on the one hand via

the European carbon market for the industrial and energy sectors and, on the other hand, by sharing the effort for the other sectors; (ii) Increasing the share of energy produced from renewable sources to 32%; (iii) Improving energy efficiency by at least 32.5%. There has already been agreement to go even further than the initial aims.

As part of the European Green Deal, the target of reducing net greenhouse gas emissions has been raised to 55% by 2030 and has been written in European law through the European Climate Act of June 30, 2021. Furthermore, the share of renewable energies in the energy mix by 2030 has

been increased to 40%.

These aims are all part of the European Commission's roadmap for "A low-carbon economy by 2050", with the following targets: (i) A reduction in greenhouse gases of between 80% and 95% (compared with 1990 levels); (ii) A contribution from all economic sectors; (iii) An affordable and achievable transition to a low-carbon economy.

<sup>4</sup> European Union Climate Action: [https://ec.europa.eu/clima/eu-action/climate-strategies-targets\\_en](https://ec.europa.eu/clima/eu-action/climate-strategies-targets_en)

## The Paris Climate Agreement (COP 21)

Faced with the challenges posed by climate change, the 195 State Parties to the COP 21 negotiations committed to sign a universal, legally binding agreement in Paris in December 2015. This agreement aims to limit the average temperature rise "to well below 2 °C [...] and pursuing efforts to limit the temperature increase to 1.5 °C."

The Agreement recognizes that states have shared but differentiated responsibility for global warming. National contributions to the effort to combat global warming are freely determined by each state, so as to flexibly take into account this principle of differentiated responsibility. Furthermore, developed states jointly committed in Copenhagen in 2009 to make available US\$100 billion a year of public and private sector funding

with effect from 2020 to help finance developing countries' climate change prevention actions.<sup>5</sup>

The Paris Climate Agreement entered into force in 2016 and its implementation rules were adopted at the 24th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP24) in December 2018.

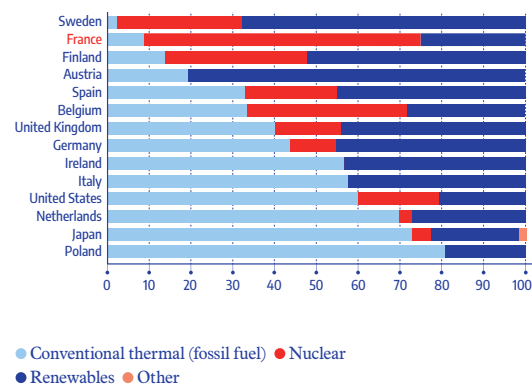
<sup>5</sup> This annual amount will be increased from 2025. Negotiations on the new agreements have not yet begun.

The structure of electricity production by country reveals the specificity of each country's energy mix, as well as their dependence on fossil fuels.

France, like Sweden, has very low-carbon electricity production due to the very low share of thermal production in its electricity mix. Only 8.8% of France's electricity production comes from carbon-based means of production. This French peculiarity is explained by the predominance of nuclear energy that does not emit greenhouse gases.

Although significant efforts have been made in terms of the development of renewable energies, the electricity production from the large economies in our sample remained highly dependent on fossil fuels in 2020. This is notably the case for the United Kingdom (40%), Germany (44%), Italy (57%), the United States (60%), Japan (73%) and Poland (81%).

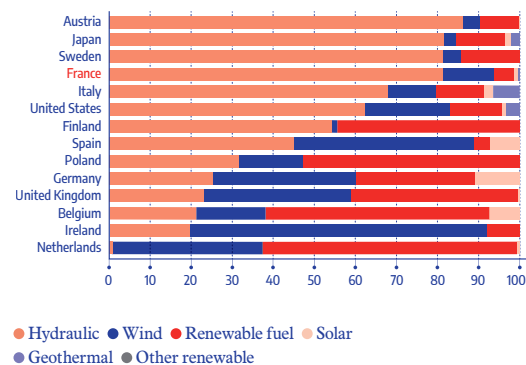
FIG. 113  
ELECTRICITY GENERATION BREAKDOWN (2020)  
%



Source: International Energy Agency, 2021; Business France calculations

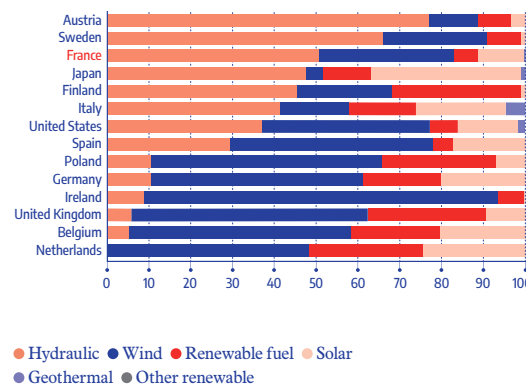
Hydraulic power is the leading renewable source of electricity production in France, accounting for 51% of renewable electricity production in 2020, as it is in Austria (77%), Sweden (65%) and Japan (47%).

FIG. 114  
RENEWABLE ELECTRICITY GENERATION BREAKDOWN (2010)  
%



Source: International Energy Agency, 2021; Business France calculations

FIG. 115  
RENEWABLE ELECTRICITY GENERATION BREAKDOWN (2020)  
%



Source: International Energy Agency, 2021; Business France calculations

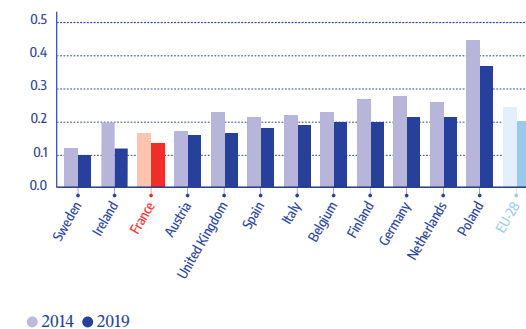
In 10 years, the structure of renewable electricity production has evolved towards a sharp increase in the share of wind and solar power. In 2010, 12% of renewable energy produced in France came from wind power, compared with 32% in 2020. The same is true for solar energy, the share of which has increased from 1% to 11% in ten years.

The environmental quality of the production process and the functioning of the economy in general play a decisive role in the development of green and sustainable growth.

This environmental quality can be measured by the greenhouse gas emissions in each economy, relative to its size. Thus, carbon intensity measures greenhouse gas emissions due to energy consumption, expressed in units of GDP. This indicator shows relatively low levels for the main European economies. France's very low carbon intensity can in part be explained by the nature of its energy mix, which favors nuclear energy rather than fossil fuels.

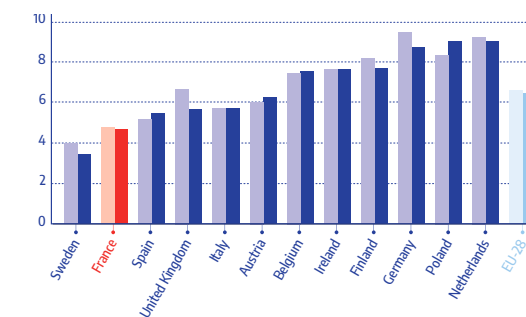
Just as France's carbon intensity is low, greenhouse gas emissions (per thousand inhabitants) place France very favorably in second place in our sample, after Sweden.

FIG. 116  
CARBON INTENSITY  
THOUSAND TONNES GREENHOUSE GAS EMISSIONS\* / GDP MILLION AT PPP



Source: Eurostat; Business France calculations

FIG. 117  
GREENHOUSE GAS EMISSIONS\*  
THOUSAND TONNES PER 1,000 INHABITANTS



Source: Eurostat; Business France calculations

**Green growth is also a lever for economic development, bringing opportunities and providing jobs, particularly in green energy. The most advanced countries in these sectors of the future are attracting international investors keen to position themselves in these fields.**

According to EurObserv'ER, **France was the third largest employer in renewable energy in Europe in 2018**, with 151,600 jobs (0.5% of its working population). The leading country in this area is Germany with 263,700 jobs (0.7% of its working population), followed by Spain with 167,100 jobs (0.7%). The United Kingdom and Italy have 131,400 and 121,400 jobs respectively (0.4% and 0.5% of their respective working populations).

## Government Climate Plan

**On July 6, 2017, the Minister for the Ecological and Inclusive Transition unveiled the Government Climate Plan**, calling on all ministries to speed up the energy and climate transition and implement the Paris Agreement over the course of the president's five-year term of office.

The main focuses of this national strategy are as follows:

**To make the Paris Agreement irreversible** by advancing environmental law and mobilizing French society.

**To improve day-to-day life for French people** by developing clean mobility, which is accessible to all, eradicating energy insecurity, promoting responsible consumption and strengthening the circular economy.

**Commit to carbon neutrality in 2050 by producing carbon-free electricity**, halting fossil fuel extraction, increasing carbon prices, and eliminating the sale of vehicles that use fossil fuels by 2040.

**Making France the number one green economy** by designing

forward-thinking solutions through research and making Paris the capital of green finance.

**Harnessing the potential of ecosystems and agriculture** to combat climate change, adapting to its consequences and putting a stop to imports of products that contribute to deforestation.

**Strengthening international mobilization** by supporting non-government bodies committed to climate action and helping developing countries combat climate change.

Source: <https://www.gouvernement.fr/action/plan-climat>

## Ecology at the heart of the "Relaunch France" plan

Backed by €100 billion, the "Relaunch France" plan is making ecological transition a strategic target, devoting €30 billion (€11 billion for transport, €9 billion for industry-energy, €7.5 billion for building and housing, plus €1.2 billion for agriculture) to green investments.

Each part of the recovery plan must contribute in some way to the ecological transition. Everything set up in the framework of the "Relaunch France" plan must meet the ambition

of making France the leading carbon-free economy in Europe, meeting carbon neutrality by 2050. It will promote sustainable and fair growth through:

- The thermal renovation of buildings.

- Aid for industry to become carbon-free.

- An environmental bonus.

- A one-off payment for purchasing an electric vehicle.

- Transformation of the agricultural sector.

This plan reflects France's desire to make the choice of sustainable and fair growth, with growth that uses natural resources, emits less CO<sub>2</sub> and protects biodiversity. The "Relaunch France" plan also supports research and innovation for the development of green technology.

# Climate and Resilience Bill

In August 2021, the Climate and Resilience Bill was passed in France, marking a turning point for a society fully committed to the fight against climate change and the overconsumption of resources.

The new law sets out a series of targets:

- In the short term, these include the limiting the circulation of polluting vehicles in certain zones,

ending advertising for fossil fuels and offering vegetarian meals in canteens.

- In the medium and long term, these include the sale of excessively polluting vehicles will be prohibited, as will the rental of poorly insulated housing. The State is already supporting and encouraging owners of poorly insulated housing to carry out renovations, in particular thanks to the “MaPrimeRénov”

(“MyRenovationBonus”) scheme, whose budget was increased by €2 billion as part of the “Relaunch France” plan. In September 2021, more than 500,000 individual projects had already benefited from this bonus. Given the success of the initiative, the target for the number of requests has been revised upwards, to 900,000 by the end of 2022.

Source: <https://www.ecologie.gouv.fr/loi-climat-resilience>

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