France Attractiveness Scoreboard

Business France
in partnership with
The French Ministry for the Economy and Finance
The French Commission for Regional Equality (CGET)

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Where does France stand, as an economy and an attractive business destination, compared with its main rivals? What are its strengths and weaknesses? And how are these changing? These are just a number of questions to which there are no easy answers given the wide array of sometimes convoluted international rankings. The aim of this France Attractiveness Scoreboard is to provide readers with some bearings by contrasting France’s performances with those of 13 other major OECD countries. It does this by focusing on key investment attractiveness criteria and presenting a clear overview of core data, shining light through French windows onto an obscure mass of statistics. Two main lessons emerge from the eighth edition of this publication.

The first of these is that France continues to enjoy and consolidate a number of outstanding structural advantages. French infrastructure remains unrivalled, underpinned by high levels of state investment that in 2016 exceeded those in the United Kingdom and Germany. Examples include some of the cheapest and lowest-carbon electricity in Europe, and the prowess of Paris-Charles de Gaulle airport, ranked first for cargo and second by passenger numbers in Europe (Eurostat, 2016). Similarly, France’s location, at the heart of Europe and flanked by three long coastlines, makes it an increasingly popular export hub for foreign businesses, which already generate 30% of French exports.

Hourly labor productivity in France rose once again in 2016, particularly in the manufacturing sector, and at a faster rate than the average for the European Union. France still offers lower business costs1 than its main rivals, as shown once again by KPMG’s Competitive Alternatives report. Furthermore, cash lending to SMEs and micro-enterprises is also rising.

France is also a leading financial center. In the first eight months of 2017, the French venture capital market raised €2.7 billion in funding, nearly 20% more than in the United Kingdom. (Dealroom, September 2017)

The second lesson is that these firm foundations are being built upon with frequently underestimated creative and entrepreneurial zeal. The net annual increase in active enterprises is higher than the EU average, while France is becoming a preferred location for startup creation, due to simplified business formation procedures, and a dense nationwide network of incubators and accelerators. The world’s largest startup campus, Station F, opened this summer in Paris, while the French Tech ecosystem is now the focus of major international recognition, as France fully embraces the Third Industrial Revolution. While none of the ‘GAFAs’ (Google, Apple, Facebook, Amazon) may hail from these shores, France today is making the very most of the environment they have helped to create, filing more patents in ICT than in any other key sector.

Along with this entrepreneurial drive are increasing numbers of R&D investments. R&D intensity – the ratio between gross
France continues to enjoy and consolidate a number of outstanding structural advantages... these firm foundations are being built upon with creative and entrepreneurial zeal.

domestic expenditure on R&D and GDP – has been on the rise since 2007. Business enterprise R&D expenditure is growing, and the French authorities have also made bold commitments, with the new €10 billion phase of the “National Investment Program” focusing in particular on breakthrough innovation. The results are there to be seen: France outstripped all its European counterparts in the latest Deloitte Technology Fast 500 EMEA for the number of fast-growing technology companies in Europe, the Middle East and Africa. Similarly, France was ranked first in Europe and third in the world in the latest Clarivate Analytics “Top 100 Global Innovators”; 10 French organizations were among the world’s 100 leading innovators in 2016.

**France’s core strengths and thriving levels of enterprise are unsurprisingly reflected by its improving attractiveness as an investment location.** The number of foreign investment projects recorded by Business France in 2016 shot up by 16%. France remains Europe’s leading recipient of foreign investment in industry, and continues to be an attractive destination for foreign researchers and international students alike. Satisfaction levels among foreign investors have also risen significantly across a range of surveys conducted by AmCham-Bain, EY, and opinion pollsters Kantar Public.

However, we also examine some of France’s strengths that can still be improved upon, along with a number of remaining weaknesses, likewise highlighted by foreign investors, such as the regulatory environment, labor costs and taxation. These issues are all central to the first major reforms being pursued by the President of France, including an overhaul of French employment laws enacted by decree on September 22, 2017, and changes to taxation that are due to form part of the 2018 French Government Budget Act. By working to make life easier for companies and entrepreneurs, the program of reforms now underway promises to help transform France’s business image and enhance its investment attractiveness. You may have to wait for next year’s Scoreboard to check the results, but we hope you enjoy reading this year’s edition first!

1 Comprising labor costs, facility costs, transport, energy (electricity, gas), telecommunications, taxes on earnings.
INTRODUCTION
Economic attractiveness is defined as the capacity to attract new business and mobile factors of production—capital and skilled labor—to a specific location, whose attractiveness is therefore closely related to its competitiveness. However large a country or region may be, a failure to be competitive may lead inexorably to population decline, disinvestment and an exodus of businesses.

In just a few years, this concept of attractiveness has become a key factor in the economic performances of different countries, and their full participation in the global economy. The challenge is to attract job-creating foreign investments given the major role they play in industrialization and regional economic development.

Foreign direct investment is seen to drive economic growth through technology and knowledge transfers that underpin competitiveness and boost innovation in the host country. Attracting foreign talent (international students and personnel) is a way of tapping into global talent pools, enhancing teaching skills, and fostering the development of ecosystems for research and manufacturing in numerous countries.

This is why many governments around the world have policies to attract foreign talent and investment.

For the eighth consecutive year, the France Attractiveness Scoreboard—produced by Business France in conjunction with the Treasury Directorate at the French Ministry for the Economy and Finance, and the French Commission for Regional Equality (CGET)—brings an original approach to this discipline.

Economic attractiveness is the reflection of a wide range of macroeconomic criteria. By compiling a vast array of economic data without resorting to data-weighted aggregate indicators, we can provide objective analysis of France’s attractiveness as an investment location. Key indicators include market size, human capital, research and innovation, infrastructure, administrative and financial environments, investment and labor costs (including taxation, which plays a significant role), as well as quality of life.

Each subject is discussed with reference to specific indicators, and comparisons are made between France and 13 OECD countries: Austria, Belgium, Finland, France, Germany, Ireland, Italy, Japan, the Netherlands, Poland, Spain, Sweden, the United Kingdom and the United States.

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 recently joined the European Union. The relative performances of these 14 countries are also compared with the EU average, wherever possible, while for some key indicators a comparison is made with other countries from around the world.

The Scoreboard confirms France’s openness to the world: a nation at the heart of global trade, one of the three most attractive European economies in the eyes of job-creating foreign investors, Europe’s leading recipient of foreign investment in industry for the last 15 years, and the fourth most popular destination in the world for international students.

The France Attractiveness Scoreboard highlights that France can count on a number of key strengths, including its large domestic market and central location within Europe, its vibrant demographics, excellent tertiary education system, high labor productivity, excellent infrastructure, a dynamic entrepreneurial environment, and superb quality of life.

It also confirms that employment law and taxation are areas in which France must regain ground in today’s competitive environment.

An appendix analyzes FDI and the jobs it generates across France’s regions, with a particular focus on foreign investment in regional aid areas, where businesses receive a variety of tax relief, including exemptions on corporate tax and property taxes.
Outcome indicators

FOREIGN direct investment
INTERNATIONALIZATION and the opening up of economies
STRATEGIC activities
FOREIGN skills
Global foreign direct investment (FDI) flows declined by 2% in 2016 to US$1,746 billion. For the second year in a row, developed countries were the largest FDI recipients, attracting US$1 trillion or 59% of global inflows, a rise of 5%, while the leading destination was the United States (US$391 billion). Major mergers and acquisitions in the United Kingdom saw it become the world’s second largest FDI recipient in 2016, as inflows rose from US$33 billion in 2015 to US$254 billion in 2016. FDI inflows in France amounted to US$28 billion in 2016, in line with the average over the last 10 years.

UNCTAD data show that global FDI flows declined 2% in 2016 to US$1,746 billion.

Inflows in emerging economies fell 14% in 2016 to US$646 billion. For the second year in a row, developed countries were the largest FDI recipients, attracting US$1 trillion or 59% of global inflows, a rise of 5%, while inward investment received in Europe was up 6%.

Two contradictory trends stood out in Europe as part of this trend: major mergers and acquisitions on the one hand, and sharp falls in intra-group loans on the other. The total value of M&A deals in Europe hit US$377 billion, the highest figure since 2007.
Many of the largest targets of these M&A deals were based in the United Kingdom, where FDI inflows rose from US$33 billion in 2015 to US$254 billion in 2016, and where three of the four largest acquisitions in 2016 took place: brewing and beverage firm SABMiller was acquired by Anheuser-Busch InBev (Belgium), oil and gas company BG Group by Shell (Netherlands); and semi-conductor firm ARM by SoftBank (Japan).

France was ranked 14th among the world’s 20 largest FDI recipients, after a 40% fall in inflows from US$47 billion in 2015 to US$28 billion in 2016.

According to the Banque de France, inward investment in France totaled US$25.6 billion in 2016, somewhat less than in 2015 (US$42.4 billion), but nevertheless in line with the average over the last 10 years (of approximately €23 billion). The largest deals in 2016 included Nokia’s acquisition of Alcatel-Lucent and the privatization of Nice Côte d’Azur Airport. The data from UNCTAD remind us that France is a preferred destination for foreign investment.

As regards inward FDI stock, France is ranked 11th in the world (or 10th, if China and Hong Kong are combined) and fifth in Europe, having accumulated US$698 billion by 2016, preceded by the United States (US$6,391 billion), Hong Kong (US$1,591 billion), China (US$1,354 billion), the United Kingdom (US$1,196 billion), Singapore (US$1,096 billion), Canada (US$956 billion), Ireland (US$840 billion), the Netherlands (US$801 billion), Switzerland (US$793 billion) and Germany (US$771 billion).

In terms of national wealth (FDI stock/GDP), France has received as much foreign investment over time as Germany, and more than Italy. The countries with the highest proportion of FDI stock are generally small economies, like Belgium, the Netherlands and Ireland, where a significant proportion of FDI received is associated with cross-border transactions involving holding companies or special purpose entities (cf. methodology hereafter).
According to data from the Banque de France, French FDI outflows amounted to US$51.8 billion in 2016, up nearly US$12 billion from the figure for 2015 (US$40 billion). Besides the French banking sector, a number of companies were behind this increase, including Air Liquide, which acquired US firm Airgas, and shipping company CMA CGM, which acquired Singapore-based Neptune Orient Lines.

Despite an 11% fall in FDI outflows from developed countries in 2016, FDI outflows from France rose 30%, making it the world’s seventh largest investor cumulatively, with an outward FDI stock of US$1,259 billion.
**FOREIGN DIRECT INVESTMENT FLOWS, BANQUE DE FRANCE**

Using the standard international method in the IMF’s Balance of Payments Manual (Sixth Edition), the Banque de France has recorded that FDI inflows to France in 2016 were US$25.6 billion, versus €42.4 billion in 2015, in line with the average over the last 10 years (of approximately €23 billion).

However, instead of drawing a simplistic conclusion from the total FDI inflows figure, we should rather distinguish and analyze the changes in various FDI components (cf. figure below):

- **Share capital investments (including real-estate investments)** remained at a high level of US$27.4 billion in 2016 in the wake of a number of major mergers and acquisitions. The largest of these included Nokia’s acquisition of Alcatel-Lucent, and the privatization of Nice Côte d’Azur Airport, which was sold off to a consortium of mainly Italian investors.

- **Reinvested earnings declined by 16% from €6.8 billion in 2015 to €5.7 billion in 2016.**

- **Intra-group loans (internal cash flows between subsidiaries belonging to the same parent company)** were €7.6 billion in 2016. This negative balance reflects an overall reduction in the amount of money on loan from foreign companies to affiliated French subsidiaries.

**FDI FLOWS FROM A BALANCE-OF-PAYMENTS PERSPECTIVE AND METHODOLOGICAL CONCERNS**

The Banque de France states that the increase in FDI flows observed in recent years is primarily the result of intra-group loans that partially reflect the growing role of special purpose entities (SPEs). These SPEs are set up in tax havens and their main activity is to hold equity securities in foreign companies on behalf of their parent company and to manage the cash flow between the group’s affiliates. This leads to an increase in FDI amounts and makes it difficult to interpret foreign direct investment statistics.

The Banque de France uses two methods to compile FDI statistics:

- Standard methodology, used by most countries and international organizations, which remains the only way to make international comparisons and compile FDI flow and stock rankings by country.

- The “extended directional principle” methodology, recommended by both the IMF (Sixth edition of the IMF Balance of Payments Manual) and the OECD, but yet to be adopted by many countries, which involves adjusting for intra-group loans to obtain a single net figure for each group.

The underlying role of share capital investments (new investments and equity acquisitions) in the 2015-16 figures underlines that annual FDI flows remain extremely volatile from one year to the next, and are often affected disproportionately by a small number of large-value transactions. It also highlights why FDI flows cannot be used as a benchmark for the relative attractiveness of an economy, since they largely comprise financial transactions arising from mergers and acquisitions driven by corporate strategies that bear no exclusive relation to the attractiveness of the country in which the head office of the acquisition target is located.

We can therefore conclude that the attractiveness of an economy cannot be ascertained solely on the basis of FDI flows, as their reflection of such wide-ranging realities makes them inherently volatile.

Consequently, we require data from individual firms. The analysis should look at data on job-creating foreign investment projects, as well as data concerning the contributions made by foreign subsidiaries to economies (employment, R&D, value added). This is the strategy adhered to by Business France in its annual report on job-creating investment in France.

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**Table 1 • FDI INFLOWS TO FRANCE • € BILLION**

<table>
<thead>
<tr>
<th>Category</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total FDI flows</td>
<td>0.2</td>
<td>42.3</td>
<td>25.6</td>
</tr>
<tr>
<td>Share capital</td>
<td>9.7</td>
<td>28.6</td>
<td>27.4</td>
</tr>
<tr>
<td>Reinvested earnings</td>
<td>5.3</td>
<td>6.8</td>
<td>5.7</td>
</tr>
<tr>
<td>Other transactions (intra-group loans)</td>
<td>-14.8</td>
<td>6.9</td>
<td>-1.6</td>
</tr>
</tbody>
</table>

Source: Banque de France

**Fig 5 • FDI INFLOWS TO FRANCE • € BILLION**

- Share capital, including real estate
- Reinvested earnings
- Intra-group loans and commercial loans
- Total

* Updated figures

Source: Banque de France, 2017
The “extended directional principle” involves categorizing loans between fellow enterprises of a multinational group (i.e. enterprises with no direct ties through share capital, or with equity participations in the fellow enterprise of less than 10%) as French direct investment abroad or foreign direct investment in France depending on the residence of the head of the group.

Transactions are recorded according to the directional principle on the basis of the “resident” or “non-resident” status in the reporting economy of the ultimate controlling parent company of the enterprises. The direction of influence or control, whether it be direct or indirect, varies depending on the “resident” or “non-resident” status of the ultimate controlling party. In such cases, it is no longer the immediate investor that matters but rather the ultimate investor.

Consequently, loans between fellow enterprises of the same international group may no longer be categorized according to the direction of the loan, but by the residence of the head of the group. This method, which involves offsetting bilateral flows and outstanding cross-border loans within each multinational group, leads to a substantial reduction in the revised total volume of FDI inflows and outflows.

Recategorizing intra-group loans according to the directional principle leads to revisions in the geographic breakdown and amounts of foreign direct investment. FDI flows for the years 1999-2009 have been revised downwards, with particular reference to the United Kingdom, the Netherlands, Belgium, Luxembourg, Germany and the United States, which together accounted for nearly 75% of all revisions. It should also be noted that the Netherlands, Belgium, Luxembourg and the United Kingdom are reputed to host a significant number of special purpose entities and other treasury centers. The new methodology became standard for presenting direct investment statistics throughout Europe in 2014.

LABOR MARKET REFORMS
helping businesses to adapt quicker to economic change and providing opportunities for jobseekers

- Reforming social dialogue and employment law. This comprises three main initiatives, the first of which involves changing the way company and sector-specific agreements relate to one another, thereby ensuring greater scope for safeguarded collective bargaining and for agreements to be concluded at a micro level. Secondly, simplifying and consolidating social dialogue, principally by merging different employee representative bodies and restructuring the way sectors are considered together as branches for collective negotiations. Thirdly, introducing clearer and more predictable rules to govern working relations, including new upper and lower limits for damages awarded by employment tribunals, reducing time limits for submitting claims to employment tribunals, encouraging mediation between employers and employees, redefining the scope for economic grounds to be invoked in dismissals, and making it easier for companies to carry out restructuring through new collective termination agreements.

- Reforming unemployment insurance benefit. The self-employed will now be eligible for benefits, as will employees upon resigning, in return for greater oversight of job-seekers. By underpinning transitions from one employment status to another, this reform will make it easier for people to make career changes towards better qualified jobs and will incentivize the risk-taking inherent in being an entrepreneur.

- Reforming professional development and apprenticeships through a government bill due to be presented in 2018.

TAX REFORMS
to underpin competitiveness, investment and employment

- Standard corporate tax rate to fall from 33.3% to 25% by 2022, starting in 2018.

- Replacing the wealth tax (impôt de solidarité sur la fortune – ISF) by a real estate tax (impôt sur la fortune immobilière – IFI), and introducing a standardized 30% flat tax (prélèvement forfaitaire unique – PFU) on capital gains.

- Transferring the tax burden from employee contributions onto the social security surcharge (contribution sociale généralisée – CSG) to lower payroll taxes and boost employment.

- Transforming the competitiveness and employment tax credit (crédit d’impôt pour la compétitivité et l’emploi – CICE) into a permanent reduction in employer social security contributions from 2019 to provide greater hiring incentives.

TRANSFORMING FRENCH MANUFACTURING AND LAYING THE FOUNDATIONS OF TOMORROW’S GROWTH

- Action plan to promote growth in companies. The plan, due to be unveiled in 2018, will comprise a number of initiatives, including: company formation, growing a business in line with statutory provisions and regulations, and transferring a business; equity/long-term debt/cash financing; corporate digitization and innovation; relations between business and the authorities; exploring new export markets.

- A major €57 billion five-year investment program to boost France’s growth potential, by fast-tracking ecological transition, building a knowledge society, driving competitiveness through innovation, and ushering in ‘government for the digital age’.

- A new €10 billion fund for industry and innovation, with a particular focus on breakthrough innovation.

GREATER SIMPLIFICATION OF THE BUSINESS ENVIRONMENT

- Introducing the right to amend an error for the benefit of entrepreneurs acting in good faith in their relations with the French authorities.

- Simplifying the regulatory framework through a ‘one in, two out’ rule and by prohibiting the practice of ‘gold-plating’ EU directives (government circular of July 26, 2017).

- Measures to help the self-employed: Abolishing the current French social security scheme for self-employed workers (Régime social des indépendants – RSI); exempting entrepreneurs founding or buying businesses with an annual turnover of less than €40,000 from having to pay social security contributions for one year (starting on January 1, 2019); increasing the taxation regime thresholds for micro-entrepreneurs in 2018 to €170,000 for retail activities and €70,000 for the provision of services and non-commercial activities, thereby opening eligibility for this simplified tax system to as many independent workers as possible.

- A new agenda for Paris’ attractiveness as a financial center post-Brexit to enhance France’s financial ecosystem: Abolishing the tax on intra-day transactions along with the fourth (and previous highest) bracket of the payroll tax (taxe sur les salaires) from 2018; opening new international high schools and setting up new bilingual classes to help high-skilled employees and their families settle in to life in Paris.

1 Any new regulatory standard must be compensated for by the removal or simplification of at least two existing regulations in the same area.
The attractiveness of an economy can also be assessed by the number of job-creating foreign investment projects (new production facilities or service centers) and business expansions. These physical investments from foreign sources have remained buoyant since the onset of the global economic crisis: along with the United Kingdom and Germany, France is one of the most attractive countries for job-creating foreign investment projects in Europe.

The number of investment decisions made by multinational firms remained buoyant in 2016. The United States was the leading investor in Europe, accounting for 29% of investments recorded, ahead of Germany with 13% of projects. France was the joint third largest investor in Europe along with the United Kingdom (7% of projects each).

The United Kingdom was the leading European recipient of job-creating investment projects in 2016, while France attracted 16% of all foreign job-creating investments recorded in Europe.

In 2016, foreign investment projects in Europe focused primarily on three business activities: decision-making centers (29%), production/manufacturing (26%) and business services (24%).

Among Europe’s 10 leading host countries for foreign investment, France is the only Western European country in which industrial sectors attracted more than 50% of foreign investments.

RESTRICTIONS ON FOREIGN INVESTMENT

France is open to foreign investment. Article L.151-1 of the French Monetary and Financial Code establishes the principle of freedom: “France is free to conduct financial relations with other countries.”

Like other nations however, France reserves the option of applying limited restrictions to this principle of openness. Many European countries (including Germany, the United Kingdom, Italy) and elsewhere in the world (such as the United States, Canada, Australia) use legislation to restrict foreign investment in sectors deemed to be strategic.

The provisions of articles L.151-3 and R.153-1 and following of the Monetary and Financial Code establish a set of restrictions for “sensitive” investments, which can be summarized as follows:

- The restrictions distinguish between investments from European Union or European Economic Area Member States and those from third-party countries, in order to comply with France’s obligations under European Union treaties.
- The list of business activities subject to prior authorization is defined in a number of separate areas relating to public order, public security and national defense.

The Decree 2014-674 of May 14, 2014 concerning foreign investments subject to prior authorization (published in the Official Journal of the French Republic on May 15, 2014) updates the sectors for which authorization must be obtained prior to investment, and encompasses business activities deemed crucial to France’s national interests relating to public order, public security and national defense in six sectors: transport, water, energy, electronic communications, public healthcare, and vital operations defined as such by the French Defense Code.

The aim of these regulatory changes is to ensure that legitimate public order concerns are addressed by foreign investors, whether they be from other European Union Member States or non-EU countries. If required, the French government can seek specific commitments or impose conditions upon the completion of investments in these areas.

The conditions of such commitments are provided for by law and must be proportionate to France’s national interests in national defense, public order and public security, on a case-by-case basis.

By virtue of article R.153-7 of the French Monetary and Financial Code, foreign investors may obtain written confirmation prior to their investment from the minister responsible for the economy to clarify whether or not the investment must obtain prior authorization.
Fig 6 - DISTRIBUTION OF JOB-CREATING FOREIGN INVESTMENT PROJECTS IN EUROPE (2016)

Source: Business France Europe Observatory
Every year since 1993, the Annual Report, produced by Business France (and historically by the Invest in France Agency) in association with France’s regional economic development agencies, has recorded the number of job-creating investment projects in France initiated by foreign companies. It includes a census of the jobs created in the first three years of each project, as well as detailed statistics categorized by business sector, investment type, business activity, source country and host region.

Types of job-creating investment recorded:

- Creations, which reflect the number of jobs created at a new site.
- Expansions, which generate new jobs at an existing site.
- Takeovers, which include jobs saved when a foreign company acquires an ailing company.
- Expansions through takeovers, where the jobs counted are those created after a foreign investor acquires a non-ailing French company.
- Expansions following buyouts, which include jobs saved when a foreign company acquires a company with no financial difficulties.

Data gathering

The data in the Business France Annual Report are compiled from three sources:

- Investment projects identified and supported by Business France.
- Projects directly monitored by Business France’s regional partners in France.
- The Business France “France Observatory”, which monitors the international financial press to identify foreign companies that may wish to make an investment in France. Every year, over 700 foreign investment projects are added to this observatory.

Since 2007, this Observatory has tracked job-creating foreign investment projects in Europe that have received media coverage. Sources include press releases, newspapers and the specialized press, trade publications and company websites. Every investment decision is attributed to the investing company’s parent company. Two types of investments are recorded: new sites and expansions of existing sites. The Observatory does not cover mergers and acquisitions, equity interests or strategic alliances.

The EIM database includes all publicly announced job-creating foreign direct investment projects which are either new site creations or expansions such as production facilities, logistics platforms, back office centers, shared service centers, headquarters, R&D centers, sales and marketing offices, etc.

Since 2003, the Crossborder Investment Monitor database, generated by fDi Markets using the same techniques as observatories, has been providing data on the investment projects of foreign firms around the world. Only “greenfield” projects (site creations) and expansions are counted, while mergers and acquisitions, capital interests and strategic alliances are excluded.

The observatories only reveal a sub-section of the investment decisions that Business France and its regional partners verify and record every year to compile the Annual Report. Despite their data-gathering limitations, the observatories are used to assess the relative positions of countries in Europe.
Foreign-owned companies (as measured by Foreign Affiliates Trade Statistics – FATS) make a meaningful contribution to different economies, and the following indicators illustrate the degree of internationalization in each. In 2014, these companies were well represented in the manufacturing sectors of all leading developed countries: in many European Union countries, they were responsible for more than 25% of the value added in the sector.

In France, the contribution of foreign subsidiaries to value added was 16% in 2014 for the economy as a whole, and was more pronounced in the manufacturing sector, where foreign subsidiaries accounted for 25%.

The contribution of these subsidiaries to employment varies by country, and is also more significant in the manufacturing sector. In Ireland, half of all manufacturing jobs are with foreign firms, while in France, 21% of employment in the manufacturing sector is provided by foreign-owned companies.

The internationalization of different economies can also be measured by comparing the contribution made by foreign subsidiaries to domestic business enterprise R&D expenditure. These subsidiaries play a leading role in R&D operations in Belgium, Ireland, Austria and the United Kingdom. In France, foreign subsidiaries account for 21% of business enterprise R&D expenditure.

The large share of foreign investors in the market capitalization of French companies is further proof of the internationalization and attractiveness of France’s economy.

According to the Banque de France, non-resident equity holdings in CAC 40 companies amounted to 45% on December 31, 2015, or US$517 billion, a lower proportion than at the end of the previous year (45.3%), but higher than the low of 41.2% in 2007.

Fourteen (39%) of the 36 French companies listed on the CAC 40 were owned by non-residents as of December 31, 2015.

Forty-five percent of CAC 40 shares were held by non-residents at the end of 2015, including 19.9% by investors from the euro zone, 15.9% by American investors, and 3.5% by British investors.

(1) Banque de France Bulletin no. 207, September-October 2016.
THE OPEN NATURE OF THE FRENCH ECONOMY

According to the French National Institute for Statistics and Economic Studies (INSEE), foreign subsidiaries:

- Employ one-fifth of the manufacturing sector workforce in France.
- Generate 25% of all French manufacturing turnover.
- Generate 30% of all French manufacturing exports.

- Account for 21% of business enterprise R&D expenditure in France.
  (French Ministry for Higher Education and Research, 2017)

Twenty-nine of the world’s top 500 companies are French, while 20 are German, and 20 are British (Fortune Global 500, 2017).
France is one of the leading destinations in Europe for foreign R&D projects. France was the leading recipient in 2016 of R&D investments, with 17% of all foreign R&D projects recorded in Europe.

The United Kingdom was by far the leading destination for foreign company headquarters, attracting 28% of all new headquarters in Europe.

As in previous years, France was Europe’s leading recipient of foreign investment in industry, attracting 17% of all production/manufacturing investments in Europe. Nearly half of all projects involving industrial operations like these in France occurred in four sectors: agri-food (15% of projects), chemicals/plastics (12%), the automotive industry (11%), and machinery/mechanical equipment (10%).

The presence of R&D centers and headquarters or registered offices of multinational groups has a domino effect on the rest of the economy through knowledge and technology transfers. Investment projects like these deserve to be recognized as strategic, and while they may not create the most jobs they do contribute to France’s investment attractiveness and the growth potential of the French economy.

In 2016, France was the leading recipient in Europe of new R&D investments by foreign companies.
FOREIGN COMPANY INVESTMENT DECISIONS (2016)

Fig 11: EUROPEAN MARKET SHARE + %

- Headquarters
- R&D, engineering
- Production / Manufacturing
- Logistics
- Chemical / Plastics
- Pharmaceuticals / Biotechnologies
- Electronic components
- Software / IT services

Source: Business France Europe Observatory
The ability to train foreign-born talent enhances as much as it determines a country’s international reputation and attractiveness. With nearly 240,000 international students enrolled in tertiary education in 2015, France was the fourth most popular destination in the world after the United States, the United Kingdom and Australia. France plays a key role in international education, which has a positive bearing on the French tertiary education ecosystem. A high proportion of foreign students are enrolled in advanced research programs in France, accounting for 40% of PhD students.

In 2015, there were 3.3 million international students in tertiary education at institutions in OECD countries. International student numbers are very concentrated in various countries, with historic trends exerting a strong influence on destination choices.

The number of international students continues to rise, and may exceed 7.5 million by 2025. The resulting highly educated workforces can be seen to improve each country’s innovation potential.
Home to nearly 240,000 international students, France is the third leading destination among our sample countries (and the fourth leading destination in the world), after the United States and the United Kingdom. As such, France can be seen to play a key role in international education.1

In 2014, foreign students accounted for nearly 10% of all students enrolled in tertiary education in France, compared with 18% in the United Kingdom and 7% in Germany.

France stands out for its very high proportion of international students in advanced research programs: 40% of PhD students are from overseas.2

At doctoral level, many international students tend to specialize in science, technology, engineering and mathematics: 25% of international PhD students at institutions in OECD countries follow an advanced research program in engineering, manufacturing or construction, while 28% study natural sciences, mathematics or statistics.

In 2015, the countries with the highest proportion of international PhD students in natural sciences, mathematics and computing were the United States (33.7%) and France (30%).

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.

Consequently, the highest proportion of international students at institutions in France are from African countries (41%), while in Germany a similar proportion (42%) are from other countries in Europe. Asia is the second leading source region of international students in both France (23%) and Germany (35%).

Conversely, smaller European countries tend to attract students from within Europe. More than half the international students at institutions in Austria, the Netherlands and Poland hail from other European countries.

Economic migration increased in more than half of OECD countries in 2015, including an 8% increase in France, and a particularly noticeable increase in researchers (up by a record 14%).

1 According to the French Ministry for Primary, Secondary and Higher Education and Research, France welcomed 310,000 foreign students in 2014-2015.
2 Advanced research program = degree equivalent to a doctorate.
Attractiveness criteria

MARKET SIZE and strength

EDUCATION and human capital

RESEARCH and innovation

INFRASTRUCTURE

ADMINISTRATIVE and regulatory environment

FINANCIAL environment

COSTS and taxation

QUALITY OF LIFE

GREEN GROWTH
**MARKET SIZE and strength**

The size and strength of the host country’s market (measured inter alia by nominal and per capita GDP) are often decisive criteria for multinational firms deciding where to locate. In 2016, with a GDP of US$2,463 billion at current prices, France was the world’s sixth largest economy after the United States, China, Japan, Germany and the United Kingdom.

Europe was the world’s second largest market in 2016. EU-28 GDP was estimated to be US$16,408 billion at current prices, compared with US$18,569 billion in the United States.

With a GDP of US$2,463 billion at current prices, France was the world’s sixth leading economy in 2016, after the United States, China, Japan, Germany and the United Kingdom.

In terms of per capita GDP in 2016, France trailed Germany, the United States, and the United Kingdom, but was ahead of Japan.

After three years of subdued growth (annual average of 0.6% in 2012-14, before correction for working days), the French economy has enjoyed renewed momentum since late 2014. Growth in France was 1.1% in 2015 and 1.2% in 2016, compared with 2.9% and 1.5% in the United States, 2.2% and 1.8% in the United Kingdom, and 1.7% and 1.9% in Germany.

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**Graph 1 - GDP PER CAPITA**

*US$ at current PPP*

- **2016**
- **2010**

Source: IMF, World Economic Outlook Database, 2017
Fig 2 - DISTRIBUTION OF GLOBAL WEALTH (2016)
• CURRENT GDP • US$ BILLION

CURRENT GDP (US$ BILLION)

20,100 17,700 12,100

5,000 2,900 900

Source: IMF, WEO, 2017
Forecasts for 2017 confirm faster growth in France: the French National Institute for Statistics and Economic Studies (INSEE) predicts growth of 1.8% in 2017, while the OECD anticipates growth of 1.7%. A recovery is also being seen in the euro zone.

**France’s location and the size of its domestic market make it a springboard into other European markets.** A foreign company will be minded to set up in a country where domestic demand is high and where it can enjoy easy access to other European markets. According to this “access to EU-27 markets” criterion, France was ranked third in 2016, ahead of Germany and the United Kingdom.

1 Economic Briefing, October 2017.

**ACCESS TO EXTERNAL MARKETS**

**Methodology**

The access to external markets variable is based on a broader concept than GDP. It is similar to the concept of trade potential and takes a country’s external demand into consideration.

This indicator is calculated for EU-27 markets. A country’s trade potential is defined as the sum of the GDP of its neighboring countries weighted by the distance between them.
The French economy is well supported by final consumption expenditure, which accounted for 79% of GDP in 2016. This is slightly less than in the United Kingdom (84% of GDP), but more than in Germany (73%) and Ireland (45%).

France also enjoys a vibrant demographic profile, and has Europe’s highest fertility rate, with nearly two children per woman (1.96) in 2015.

Forecasts looking ahead to 2080 emphasize that France’s high fertility rate will enable it to replace its active population, while other countries are due to see falls.

Companies tap into foreign demand by exporting or by basing their operations overseas. Their performances in this respect have a direct bearing on the competitiveness of countries and, in turn, on the attractiveness of economies.

With 3.1% of global goods exports in 2016, France was the seventh largest goods exporter in the world, and the third largest in Europe, preceded by China (13.2%), the United States (9.1%), Germany (8.4%), Japan (4.0%), the Netherlands (3.6%), and Hong Kong (3.2%).

France was also the world’s fourth largest services exporter, with 4.9% of the total, after the United States (15.4%), the United Kingdom (6.7%), and Germany (5.6%).

Sales revenues (in US$) from global goods and services exports declined 2.0% in 2016, after a large fall (down 11.4%) in 2015. However, exports from most countries in our sample rose in 2016, with the largest increases being seen in Belgium (up 5.7%), Poland (up 3.6%), Japan (up 3.0%) and Spain (up 3.0%). The largest falls were in the United Kingdom (down 6.3%), the United States (down 2.2%) and Finland (down 2.2%), while exports from the European Union rose slightly (up 0.5%).
Amid a sharp slowdown in global trade, and dented by a number of one-off events (very poor harvests in particular), French export sales revenues declined 0.5% to €453 billion in 2016, after having risen 4.3% in 2015. Service exports amounted to €212.8 billion, down 1.7% from 2015.

French exports are forecast to improve in 2017, driven by rising world demand for French goods and services.

The flattening out of France’s share of world trade revenues observed since 2012 continued into 2016 (latest year available). French exports accounted for 3.2% of global goods exports (IMF figures) and 3.5% of global goods and services exports (OECD figures).

France is one of the world’s leading investing countries and plays a full role in the globalized economy. In 2016, France was the world’s seventh largest economy by outward FDI stocks (4.8% of global stocks), after the United States (24.4%), Hong Kong (5.8%), the United Kingdom (5.5%), Japan (5.4%), Germany (5.2%) and China (4.9%).
France has a well qualified and highly productive workforce, and continues to invest in tertiary education to maintain its competitive advantages and consolidate its scientific skill base. Training, tertiary education and research all act as spurs to competitiveness and investment attractiveness. Tertiary education provision enables students to acquire a wide variety of knowledge, skills and attitudes to build tomorrow’s society.

With an education budget of a little over 5% of GDP in 2014, France is in line with the average for OECD countries.

If all levels of education are combined (from primary to tertiary), France spends an average of US$11,184 (PPP) per pupil/student, less than in Germany (US$12,063), the United Kingdom (US$13,906) and the United States (US$16,268).

In tertiary education, annual expenditure per student (US$16,422 ) is lower than in the United States (US$29,328) and the United Kingdom (US$24,542).
With the exception of the United States, Japan and the United Kingdom, education expenditure is mostly government-funded (more than 80%). In 2014, public expenditure accounted for nearly 87.4% of France’s total spend in the education sector, higher than in Germany (86.8%) and the United Kingdom (71.2%), but lower than in Finland (98.4%), Sweden (96.7%) and Austria (95.1%).

The OECD PISA survey, which assesses the scientific literacy of 15-year-old pupils, gives France an average ranking: 8% of pupils attained the two highest levels in 2015, a similar level to Austria (7.7%), Sweden (8.5%) and the United States (8.5%), but lower than in Germany (10.6%), the United Kingdom (10.9%) Finland (14.3%) and Japan (15.3%).

The proportion of 25- to 64-year-old graduates in France (34.6%) is lower than in the United States (45.7%), the United Kingdom (46.0%) and Japan (50.5%), but higher than in Germany (28.3%). The origin of this disparity dates back to when France was initially slow to open up access to tertiary education, before moving to make up lost ground.

Consequently, the 25- to 34-year-old age group in France is particularly well qualified: 44% of this age group held a tertiary qualification in 2016, a similar level to that recorded in Belgium (44.3%) and the Netherlands (45.2%), but lower than in the United Kingdom (52.0%) and Japan (60.1%), and higher than in Germany (30.5%) and Italy (25.6%).
Human resources in science and technology (HRST) are regarded as one of the main drivers of knowledge-based economies. In addition to tertiary education graduates, HRST include people employed in scientific or technological occupations that require advanced qualifications.

In France, HRST accounted for 50.5% of the active population in 2016. The proportion of human resources employed in science and technology throughout the country is substantial, as in a number of other countries. France is ranked lower than the United Kingdom (56.9%), but ahead of Germany (48.4%).

Researchers are also well represented. With 9.4 researchers per 1,000 members of the labor force in 2015, France was ranked seventh among OECD countries, ahead of Germany (9.2) and the United Kingdom (8.8). This highly qualified workforce, capable of adapting to and mastering new tools, means that companies in France can continue to invest in new technologies, an essential requirement for productivity growth.

In France, as in many developed countries, growth in hourly labor productivity has gradually slowed since the 1990s: whereas back then it hovered between 1.5% and 2%, it dipped between 2007 and 2009, and has been growing at an annual average of 1% since 2010. Labor productivity nevertheless remains high in France, on both a per-employee and hourly basis.
Between 2014 and 2016, hourly labor productivity growth remained weak: up 1% in Germany, up 0.9% in France, up 0.5% in the United Kingdom, and down 0.5% in Italy.

In 2016, hourly labor productivity in France grew 1.2%, a similar figure to Germany (up 1.2%) and higher than in the United States, Japan and the United Kingdom (all up 0.4%). Only in Italy (down 0.8%) did productivity decline.

Productivity trends in manufacturing can be estimated using a productivity indicator based on gross value added per hour worked (see sub-chapter II.7, Costs and taxation). Productivity per hour worked in the manufacturing sector rose 2.8% in France in 2016, compared with 0.5% for the EU-28 as a whole.

A similar trend can be seen in productivity per person employed, which increased by 2.5% in the French manufacturing sector in 2016.
RESEARCH and innovation

Dynamic research and innovation operations and investment in digital and information technology are yielding growth and productivity gains. They are also key factors in attracting internationally mobile technology- and knowledge-intensive investment projects.

France’s R&D intensity has been on the rise since 2007. France also displays specialisms in the most promising technological fields, such as biotechnology and environment-related technologies.

To ensure that these advantages stand the test of time, the government is redoubling its efforts to promote innovation in France.

With gross domestic expenditure on research and development (GERD) of US$60.8 billion (PPP) in 2015, France was ranked sixth in the world, after the United States, China, Japan, Germany and South Korea.

In 2015, gross domestic expenditure on R&D (at constant prices) in France grew 0.4%, less than in Germany (3.3%) and the United Kingdom (3.5%).

Among the other sample countries, expenditure increased sharply in 2015 in Poland (up 10.9%) and Sweden (up 8.5%), but fell significantly in Finland (down 8.3%).

In 2015, business enterprise R&D expenditure (BERD) increased in France (up 0.6%) but less quickly than in Germany (up 4.9%) and the United Kingdom (up 4.4%). The strongest growth was in Sweden (up 12.8%) and Poland (up 10.8%), while the largest decline was recorded in Finland (down 9.7%).
R&D intensity (GERD/GDP ratio) in 2015 was 2.22% in France, higher than in the EU-28 as a whole (1.96%). It was lower than in Japan (3.29%), Sweden (3.28%), Austria (3.12%), and Germany (2.93%), but higher than in the United Kingdom (1.70%). France’s position can be explained by its industrial base, which is smaller than in countries with higher R&D intensity, and its different industrial specializations. This ratio was in decline from 2002 to 2007 (falling from 2.17% to 2.02%), but has rebounded ever since.

In 2016, the French government spent more than US$17 billion on research and development, less than the United States (US$149 billion), Germany (US$35.4 billion) and Japan (US$33.9 billion), but more than the United Kingdom (US$14.7 billion in 2015).
Business enterprise R&D expenditure in France has been on the rise since 2009, accounting for 65.1% of GERD in 2015 – compared with 78.5% in Japan, 71.9% in Belgium, 71.5% in the United States and 68.7% in Germany. A positive correlation can be seen between the R&D intensity of the countries and the proportion of R&D activities conducted by businesses. Consequently, the countries with the most vibrant R&D ecosystems are those where companies place the greatest emphasis on R&D operations. SMEs have a lower capacity for innovation than large corporates in all the sample countries. France is ranked in the middle of the sample, with 55.1% of SMEs and 84.1% of large corporates reporting innovations in 2014.

ICT investment (acquisition of equipment and software) provides an indication of how much effort each country is putting into technological development. In 2013, France was the fourth leading sample country for such investment (3% of GDP), ahead of the United Kingdom (2.1%) and Germany (1.7%), while for investment in software alone, it was ranked top.
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. Eligibility for the research tax credit was extended in 2013 to encompass innovation spending by SMEs (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, and complete exemption from certain employer social security contributions) to SMEs that are less than eight years old and devote at least 15% of their total spending to R&D. These tax breaks, some of which had been scaled back in 2011 (the exemption from social security contributions used to decrease gradually as of the fourth year), were restored in 2014. 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 2030 Innovation Commission, chaired by Anne Lauvergeon, the former head of French nuclear giant Areva, has identified a finite number of major opportunities with great potential for the French economy. Eight key sectors for the future have been selected: energy storage, recycling of metals, development of marine resources, plant proteins and plant chemistry, personalized medicine, big data, the silver economy, as well as public security and protection against threats.

“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 fab labs and attract foreign talent, entrepreneurs and investors.

A third phase of the “National Investment Program” has also been launched, supported by additional funds of €10 billion, focusing in particular on breakthrough innovation, which will receive €300 million per year.
PATENTS, TRADEMARKS, MODELS AND INDUSTRIAL DESIGNS AS INDICATORS OF INNOVATION ACTIVITY

Methodology

A patent is an intellectual property title which confers on its holder an exclusive right of use to the patented invention, for a limited period (normally 20 years) and in a specified 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 an application to the European Patent Office). A patent may also be filed under the Patent Cooperation Treaty (PCT procedure). By filing one international patent application under the PCT, “applicants can simultaneously seek protection for an invention in a very large number of countries”. Since March 2017, 152 member states have ratified the treaty, placing the PCT at the heart of international cooperation on intellectual property. Another advantage of this procedure is that it improves international comparability.

According to the INPI (French Patent and Trademark Office): “As intellectual property is defined, a trademark is a ‘sign’ used to accurately distinguish the products or services of a company from its competitors’ products or services.” Filing a trademark gives the holder exclusive rights of use in the form of intellectual property protection. It is used as a sign that something is new (innovations in products, marketing and services) 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 so as 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.

Patent indicators are often used to discern a country’s performance in technological innovation. One important indicator is the number of patent applications filed under the PCT international patent procedure. In 2015, France filed 7,961 PCT applications, placing it after the United States (51,409), Japan (41,690), and Germany (17,315), but ahead of the United Kingdom (6,308).

Trademark applications are used to measure marketing innovations. In 2015, France registered 5,398 trademarks per million inhabitants, after Germany (8,840) and the United Kingdom (6,685), but ahead of the United States (2,925) and Japan (1,768).

Registrations of models and industrial designs are a third intellectual property indicator. In 2015, 964 models and industrial designs per million inhabitants, were registered by French nationals. The countries whose citizens filed the most registrations were Sweden (1,876), Finland (1,706), Austria (1,554), while the United States only saw 350 registrations per million inhabitants.
Another indicator can be used to measure a country’s technological specialization by counting the number of patents filed in the most promising technological fields. This is the revealed technological advantage (RTA) index (see methodology hereafter).

France held a technological advantage in biotechnology and environment-related technologies in 2014, as the proportion of patents filed in France in each of these sectors was higher than France’s share of all patents filed in the world. France can therefore be seen to specialize in these two sectors.

The French ICT sector is particularly buoyant, as well as being the leading field for registered patents (according to the OECD sector classification). In 2014, ICT patents accounted for 28.3% of the total number filed in France (see methodology hereafter).

**Methodology**

The revealed technological advantage (RTA) index measures the relative performance of the various technological fields covered by patents filed in a country. It provides an indication of the degree of technological specialization within an economy by calculating the global market share of the patents filed in a country within the field in question, with respect to that country’s global market share of patents filed in all fields. This indicator of technological specialization of a country i, in a technological field j, is defined by the following ratio:

$$RTA_{ij} = \frac{\text{Market share of a country } i \text{ in patent applications in a given field } j}{\text{Market share of a country } i \text{ in total patent applications in all fields}}$$

If $ATR_{ij} > 1$, country i is relatively specialized in technological field j (its market share in field j) is greater than its global market share. The calculation for this indicator is based on patent applications filed under the Patent Community Treaty (PCT – signed by 152 countries, including France), which covers “international” patent applications requesting that protection be filed in several countries at once.

The four fields selected for this analysis – nanotechnology, biotechnology, ICT, and environment-related technologies – accounted for 42.4% of all patents filed in France in 2014 (48.1% in 2010-2013).
However, France’s contribution to ICT patents (2.8%) is lower than its overall contribution to patents worldwide (3.9%), which reflects its lower relative specialization in this key sector.

France’s position in environment-related technologies improved sharply in 2014, when 5.3% of patents filed in this sector were French in origin, compared with 4.4% in 2013. This increase was the result of a large fall in the number of patents filed worldwide (down 34%).

In 2014, the nine key sectors defined by the OECD accounted for 74.5% of all patents filed in France.

The leading sectors for patents filed were ICT, electricity, environment-related technologies, biotechnology, medical technology, pharmaceuticals, and medical preparations.

France enjoyed a revealed technological advantage in 2014 in environment-related technologies (5.3% of patents in the sector were of French origin), medical preparations (5.1%), and biotechnology (4.6%), as France’s contribution to patents in these sectors was greater than its contribution to all patents worldwide (3.9%).
International rankings confirm the momentum of innovative French firms

France outstripped all its European counterparts in the latest Deloitte Technology Fast 500 EMEA for the number of fast-growing technology companies in Europe, the Middle East and Africa. The top 10 French companies in the 2016 Technology Fast 500 EMEA were: Horizontal Software, Chauffeur Privé, Disposable-Lab, Valneva, Crosscall, Adyoulike, OSE Immunotherapeutics, Interactiv Group, Adxperience, SlimPay.

Similarly, France was ranked first in Europe and third in the world in the latest Clarivate Analytics “Top 100 Global Innovators”. Ten French organizations were among the 100 leading global innovators in 2016: three R&D centers (CNRS, CEA, and IFP Energies Nouvelles) and seven companies (Alstom, Arkema, Safran, Saint-Gobain, Thales, Total and Valeo).

Outstanding international recognition of the French tech ecosystem

Following in the footsteps of Facebook, Microsoft recently announced a partnership with Station F in the field of artificial intelligence. The incubator, opened in summer 2017, is now home to around 1,000 startups in the heart of Paris and offers a number of development programs, supported by digital giants such as Vente-privee.com, Zendesk, Numa, Amazon and Airbnb.

Paris is a mature ecosystem for fledgling businesses, supported by an effective financing system and renowned research institutions, and is ranked fifth among the 60 cities offering the best environment for startups. The French capital also emerges as one of the cities to have introduced the most effective policy initiatives to catalyze entrepreneurship and innovation (infrastructure to host startups, connectivity and digital integration), alongside San Francisco, New York and London.

Paris-based start-uppers have built up a sound reputation in industry, the sharing economy and artificial intelligence. “Paris is the ‘techiest’ hub in Europe, with a lot of Internet of Things, Big Data and Artificial Intelligence companies being created each year.” Rand Hindi, CEO of Snips. (The Global Startup Ecosystem Ranking 2015)

France’s innovation capacity has been in full view in the last two years at the Consumer Electronics Show (CES) in Las Vegas, the largest of its kind in the world. In 2017, the French delegation was the third largest in the world, with the second most startups after the United States: around 260 French companies took part, including 188 startups, 36 of whom took home 33 innovation awards.
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. This component in its investment attractiveness is a key advantage for the geographical distribution of manufacturing activities. Businesses operating in France also gain from first-class communication infrastructure, an extensive broadband network, and electricity at very competitive and stable rates.

France has high levels of state investment (3.4% of GDP in 2016), higher than in the United States (3.2% in 2015), the United Kingdom (2.6% in 2016) and Germany (2.1%). The ratio of gross fixed capital formation to GDP in public services has fallen in France since 2009 (down 0.8 percentage points), as it has in nearly all the sample countries, including the United Kingdom (down 0.7 pts), Germany (down 0.2 pts) and the United States (down 1 pt).

Investments in transport infrastructure in 2014 were equivalent to 1% of France’s GDP, ahead of Germany (0.6%), the United States (0.6%) and the United Kingdom (all 0.7%).
France has an extremely dense domestic transport network, with Europe’s largest road network – more than a million km (620,000 miles) of roads, including over 12,000 km (nearly 7,000 miles) of motorways – as well as a rail network of 30,000 km (over 18,000 miles) and 5,000 km (2,700 nautical miles/3,100 miles) of navigable waterways.

The volume of road freight in France is considerable. With 160,000 million tonne-km in 2016, France was ranked fifth among the European countries in the sample, after Germany, Poland, Spain, and the United Kingdom.

Rail freight is also very extensive. With over 34,000 million tonne-km transported in 2015, France was ranked third among the European countries in the sample, after Germany and Poland.
RAIL REFORM AND THE DEVELOPMENT OF MULTIMODAL TRANSPORT IN FRANCE

The Rail Reform Act of August 4, 2014 reorganized the sector by setting up an integrated public industrial group encompassing both the rail operator and the infrastructure administrator. This new group now comprises a state-owned parent company (SNCF) and two state-owned subsidiaries: the infrastructure administrator (SNCF Réseau) and the rail operator (SNCF Mobilités). The reform has served to bring the administration of the country’s rail infrastructure, previously shared between RFF and SNCF, under a single entity, SNCF Réseau. This pooling of skills and functions is expected to lead to productivity gains and improved network management, while also bringing corporate debt under tighter control. Furthermore, a “golden rule” has been introduced to ensure that infrastructure development projects will no longer be funded by SNCF Réseau before it has reduced its debts.

France also boasts a number of advantages in maritime transport, being flanked by Europe’s three large coastlines (the Atlantic, the Mediterranean, and the English Channel/North Sea) and enjoying access to four oceans. In 2015, freight loaded or unloaded in French mainland ports and at ports in France’s overseas départements and regions totaled 300 million tonnes, ranking France fifth among the European countries in the sample.

These land and maritime transport networks are supplemented by excellent airport infrastructure. France has 43 airports that each record more than 100,000 passenger movements per year.

In 2016, two of Paris’ airports were ranked in the top 15 airports in the EU-28: Paris-Charles de Gaulle was ranked first for cargo and second by passengers carried after London Heathrow, while Paris Orly was ranked 10th for passenger numbers.
As in all the sample countries, the broadband penetration rate has risen sharply in France in recent years. With 41 land-based broadband subscribers per 100 inhabitants in 2016, France was ranked second among the sample countries, ahead of Germany (39 subscribers) and the United Kingdom (38). The disparities among countries were more pronounced for wireless broadband connections, with 152 subscribers per 100 inhabitants in Japan, 147 in Finland, 126 in the United States, and 122 in Sweden, compared with 90 in the United Kingdom, 80 in France and 77 in Germany.

The European countries in the sample offered similar monthly rates for broadband internet access in 2014, with the exception of Spain (US$49). In France, the average monthly price of broadband access was US$35, much lower than in the United States (US$70).

**HIGH-SPEED BROADBAND INTERNET ACCESS**

The High-Speed Broadband France Plan (France Très Haut Débit) is an investment strategy to bring high-speed broadband (over 30Mbit/s) to the entire country by 2022, with an intermediate target to reach 50% of the population by 2017. 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.
In 2014, the average download speed in France was 110 Mbit/s, placing it fourth in the sample after Sweden (240 Mbit/s), Japan (167 Mbit/s) and the Netherlands (136 Mbit/s), but ahead of the United Kingdom (57 Mbit/s) and Germany (45 Mbit/s).

In 2016, fixed broadband subscriptions greater than or equal to 10 Mbps amounted to 96% of all subscriptions in France, higher than the EU-28 average (82%), the United Kingdom (93%) and Germany (76%).

France is making good progress rolling out IPv6 technology. According to Cisco, its IPv6 deployment ratio was 42% in September 2017, which places France sixth among the sample countries.

**IPV6**

**Methodology**

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 readsies countries ahead of the upcoming 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:

\[
\text{Deployment Ratio} = \frac{\%\text{TransitAS} \times 3 + \%\text{Content} \times \%\text{User}}{4}
\]
Electricity rates are especially attractive for companies operating in France, and are among the most competitive in Europe due to France’s energy mix and careful management of electricity generation and the national grid.

The variability of electricity rates in France remains low.

The French corporate real estate market remains buoyant. Paris is ahead of Europe’s other major capitals, with four other French cities also in the standings (Lyon, Lille, Marseille and Toulouse).

![Electricity Rates Graph](image)

![Variability of Electricity Rates Graph](image)

**Table 1 - Indicators for Leading European Office Property Markets**

<table>
<thead>
<tr>
<th>Transactions (sq. m.)</th>
<th>Vacancy rate (%)</th>
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<td>2016</td>
<td>2015</td>
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<tr>
<td>Central Paris</td>
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<td>Central London</td>
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<td>Helsinki</td>
<td>155.2</td>
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<tr>
<td>Rome</td>
<td>117.2</td>
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<td>Manchester</td>
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<td>Marseille</td>
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<td>Edinburgh</td>
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<td>Birmingham</td>
<td>64.2</td>
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<td>Glasgow</td>
<td>64.2</td>
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</table>

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

Source: BNP Paribas Real Estate, European Office Market, 2017

Source: Eurostat; Business France calculations
France’s administrative and regulatory environment often provokes criticism in opinion surveys. Labor market regulation in particular is considered to be complex. According to the criteria used by the World Bank to analyze business environments, France only holds a middle-ranking position, but receives good scores in a number of important categories (trading across borders, enforcing contracts, starting a business, getting electricity, protecting minority interests, and resolving insolvency).

Yet a number of other aspects of the administrative and regulatory environment highlight some of France’s key strengths: access to public tenders and e-government development are among the criteria that make France an attractive country for foreign investors. The French economy also stands out for net enterprise creation.

The World Bank’s Doing Business report measures the ease of doing business in 190 economies. France was ranked 29th in the 2017 report (10th among our Scoreboard sample countries). The ranking is based on analysis of regulations in 10 categories: starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, and resolving insolvency.

However, in seeking above all to measure transaction costs, the report does not provide an accurate picture of France’s attractiveness insofar as it fails to consider all the benefits received, for example through the provision of high-quality public services. It should also be noted that changes were made to the methodology in 2015 and 2016.

France’s best performances are in enforcing contracts (index based on the number of procedures, time they take in days, and the cost as a percentage of the claim) and starting a business (index based on the number of procedures, time they take in days, their cost, and the minimum paid-in-capital requirement as a percentage of per capita income).
France receives a low score from the World Bank for registering property (index based on the number of procedures, the time they take in days, and their cost as a percentage of asset value).

E-government is another of France’s strengths. According to the United Nations E-government Survey 2016, France is ranked 10th globally and fifth among our sample countries for e-government development.

Since 2012, the French government has been engaged in a wide-reaching administrative simplification program, whose recommendations have become law through the Corporate Simplification Act (December 2014) and the Growth, Economic Activity and Equal Economic Opportunity Act (August 2015).

Moreover, the introduction in 2015-2016 of a single social security contributions statement will have saved businesses €1.6 billion.

In terms of using the internet to interact with public authorities, France is among the best-performing EU-28 countries: 66% of French individuals had used the internet to contact public authorities during the previous 12 months in 2016, compared with an EU-28 average of just 48%, ahead of Germany (55%) and the United Kingdom (53%).
FRANCE’S POOR RANKINGS AT ODDS WITH ECONOMIC REALITY

The best known rankings studying competitiveness are the World Economic Forum’s Global Competitiveness Index, the IMD Business School’s World Competitiveness Yearbook, and the World Bank’s Doing Business, all of which combine statistical indicators with the results of opinion surveys. France’s performances vary from 21st place (WEF) to 31st place (IMD) and 29th place in the World Bank’s report.

More than half the criteria used to calculate the composite index in the IMD World Competitiveness Yearbook are derived from surveys. Aside from the inherent difficulty of measuring competitiveness through a single composite indicator, the overwhelming reliance on opinion poll data means that its results should be treated with extreme caution. Received wisdom has long since been prejudicial to a France perceived as overly bureaucratic and reluctant to embrace globalization, despite being entirely open to foreign investment as the world’s 10th largest recipient of inward FDI stock, the world’s seventh largest investor, and Europe’s leading destination for foreign investment in industry.

In the 2016-17 WEF Global Competitiveness Index, France was ranked 53rd under the indicator reflecting perceptions of “pay and productivity”, despite being the seventh leading country in the world for hourly labor productivity.

These rankings look kindly upon the common law found in English-speaking countries and only provide limited insight into the various aspects underpinning a country’s competitiveness. The business environment cannot be assessed by examining only administrative procedures and regulations, and the World Bank’s Doing Business fails in this regard to examine competitiveness components such as security, economic stability, corruption, infrastructure quality, and workforce qualifications. Furthermore, it fails to consider the robustness and regulation of the financial system, despite the fact that these are two important factors in understanding the causes of the financial crisis that also have an impact on the business environment.

All these rankings should therefore be treated with some degree of caution, due to their manifest methodological shortcomings.

LABOR, SOCIAL DIALOGUE MODERNIZATION AND CAREER SECURITY ACT OF AUGUST 8, 2016

This Labor Act is a reform of French employment laws, modernizing the labor market in three ways: through better social dialogue, greater flexibility and visibility for companies, and greater safeguards protection for employees, especially those who lack job security.

The Act strengthens the role of employee representatives in defining organization and working time regulations, and recognizes the primacy of company-wide agreements over industry-wide agreements in all aspects of working hours. It gives the responsibility for defining organization and working time regulations to employee representatives at company level. Companies can therefore now adapt more easily to peaks in the business cycle through exemptions to statutory legal provisions.

This approach is based on making social dialogue more efficient via three major reforms:

• Significantly reducing the number of professional sectors (‘branches’ for collective bargaining), with a target of 200 within three years.
• Enhancing the legitimacy of company-wide agreements by generalizing majority-backed agreements, i.e. those signed by trade unions that have garnered at least 50% of the votes cast for union representatives.
• Making social dialogue more effective by encouraging employee representatives to agree on a negotiating method, and by empowering these stakeholders.

By providing companies with greater visibility, the Act reduces barriers to permanent employment, notably clarifying what constitutes economic grounds for dismissal. The aim is to make sure that the criteria determining whether or not the economic grounds provide sufficient justification can be understood readily and universally, including by SMEs without legal advisors or human resources departments.

The Act also introduces new safeguards for both employed and self-employed workers. It creates a personal employment account (compte personnel d’activité – CPA) which aims to provide career security, facilitate career transitions, and give everyone a better understanding of their statutory rights. All employees now have better access to lifelong professional development, enabling them to adapt and improve their qualifications, thereby increasing productivity.

With regard to young people under 26 who lack job security and are neither employed nor in training, a “Youth Guarantee” was introduced nationwide in 2017, providing them with customized support and financial assistance to help them find work.

The Act also establishes corporate social responsibility for digital platforms and a right to disconnect for employees, and paves the way for further dialogue on the development of teleworking with employee and employer representatives.
The French government has chosen to issue decrees, a procedure provided for by France’s Constitution, in order to pursue reforms to employment laws. Upon authorization from Parliament, and for a limited time period, this procedure allows the government to use decrees to adopt measures normally subject to statutory law as a way of ensuring the rapid implementation of its program. Five decrees, developed in close consultation with employee and employer representatives, were issued by the Council of Ministers on September 22, 2017, and published in the Official Journal on September 23, 2017.

The reform is based on three elements: safeguarding collective bargaining; simplifying and consolidating economic and social dialogue by empowering its stakeholders; 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 a 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, companies 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%.

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.

1 Decree of September 25, 2017 on the re-evaluation of statutory severance pay.
The European Commission report Public Procurement Indicators 2015 shows that France was the leading country in the EU-28 for competitive tendering at EU level: France published more than 41,000 contract notices under the open tendering procedure in 2015, accounting for 23.9% of EU-28 invitations to tender.

Furthermore, France was the second leading country for the value of these tenders, just after the United Kingdom, awarding contracts worth a total of €65.5 billion through open tendering in 2015.

Enterprise creation is buoyant in France. In 2015, the enterprise start-up rate across the whole French economy was 9.4%, ahead of Germany (7.1%) but after the United Kingdom (14.3% in 2014). In manufacturing, this rate was 7.1% for France in 2015, the fourth highest after Poland (9.8%), the United Kingdom (9.8% in 2014), and the Netherlands (7.5%), but ahead of Germany (3.7%).

The total number of active enterprises in France grew by 2.3% in 2015, through a net increase of 77,438 across the entire economy. The average 2015 growth figure for the EU-28 as a whole was only 1.7%.

In the manufacturing sector, net enterprise creation was 0.6% in 2015, slightly higher than across the EU-28 (0.3%), while this rate fell in Germany (down 0.2%) and the United Kingdom (down 0.7% in 2014).

France also boasted the sample’s third lowest enterprise death rate (5.3%) in 2015, after Ireland (2%) and Belgium (3%), but ahead of Germany (7.7%). In the manufacturing sector, the rate was 4.4% for France, compared with 5% for Germany.
The Growth, Economic Activity and Equal Economic Opportunity Act (aka the ‘Macron Law’) became law on August 6, 2015. Founded on three major principles – liberalization, investment, and labor market reform – its aims were to foster growth, investment and employment through key measures including:

• Simplified Sunday trading rules, coupled with statutory rights for employees
• New international tourist areas (Zones touristiques internationales – ZTIs)
• Liberalization of the intercity coach travel sector
• Overhaul of regulated professions by easing set-up conditions and revising fees to reflect real costs
• Reformed employee savings schemes to promote lending in the economy, especially to SMEs and micro-enterprises
• Support for physical investments through a supplementary depreciation allowance
• Greater oversight over collective dismissal procedures
• Reform to employment tribunals
• Fully extensive nationwide mobile phone coverage, with all remaining ‘black spots’ to be resolved by late 2016
Paris’ success as a financial center and the increasing variety of finance solutions available constitute another component of France’s investment attractiveness, underpinned by a strong position in asset management. Overall, France is well placed in the various financial services sectors, from private equity to listed shares, the bond market and bank lending. The venture capital industry is assuming a growing and vital role in helping to create new businesses in innovative technology sectors.

According to the World Economic Forum Global Competitiveness Report compiled from opinion survey data, France is well placed among the sample countries for access to bank loans. It is not ranked as high as Sweden, the United States and Germany, but is broadly on a par with the United Kingdom.

Data from the Banque de France confirm the availability of bank credit. Corporate lending in France has on the whole remained buoyant, with a solid rise in early 2014 gathering momentum since 2015. This trend can also be seen in Germany, Finland and Belgium. Conversely, corporate lending has remained flat, or in some cases declining, in other leading euro zone countries (particularly Ireland, Spain, Italy, the Netherlands and Austria).
According to the Banque de France’s quarterly corporate bank lending survey for the second quarter of 2017, bank lending to SMEs and micro-enterprises has been improving (cf. inset hereafter).

Furthermore, there has been a sharp upward trend in corporate lending from banks and the bond markets. This can be seen by today’s extremely low yields in the corporate bond markets, particularly in France and Germany, which are prompting bond issues to rise, as are diminished opportunities for trading.

As of late 2016, the market capitalization of NYSE Euronext Europe – combining the Paris, Amsterdam, Brussels and Lisbon stock exchanges – had risen significantly (up 4.8%) since late 2015. Meanwhile, NYSE Euronext US (up 10%), the Nasdaq (up 6.8%) and the Japan Exchange Group (up 3.4%) have all grown in similar fashion.

NEW LAWS TO FACILITATE VENTURE CAPITAL INVESTMENTS AND LENDING TO SMES

Since 2007, a number of laws have been passed to facilitate and support venture capital investment in France, and investment in SMEs in particular:

• The 2015 Amended French Government Budget Act 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, 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 FCP), 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 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.
France is ranked fourth in Europe for asset management – after Luxembourg, Ireland and Germany – with a market share of 12.6% for net assets managed by investment funds domiciled in Europe, and third among the Scoreboard sample countries.

France was ranked third among the sample countries in 2015 for venture capital investment, which amounted to 0.034% of French GDP, spread evenly between the launch (0.017%) and expansion (0.017%) phases.

Paris led the way among European cities for fundraising in the startup phase in 2015. With nearly €2 billion raised, France reaffirmed its clout in the European venture capital market, holding onto second spot by transaction numbers after the United Kingdom, before taking top spot in the first half of 2017.
One of France’s strengths lies in the low business costs it offers companies. According to KPMG’s Competitive Alternatives 2016 survey, the total sum of these costs (labor, facility, transport, taxes and duties, equipment and energy, etc.) is 9.5% lower in France than in the United States. Among the countries in KPMG’s sample, France is ranked third after the Netherlands and Italy. The United States, which serves as the baseline for the report, is ranked seventh.

France’s cost advantage over the United States has improved significantly from KPMG’s 2014 and 2012 surveys in all the report sectors, especially in the R&D services sector, where costs are 22.4% lower. France is also more competitive than the United States in the corporate services, manufacturing, and digital services sectors.

Labor costs and taxation are presented as weaknesses for France in opinion surveys. However, France has succeeded in significantly improving its cost competitiveness since 2009 and in controlling labor costs, particularly in industry. Over the last three years, unit labor costs in France have risen by less than in the euro zone as a whole due to high productivity gains in the manufacturing sector, accentuating the impact of falling labor costs.

Although nominal rates of taxation in France are relatively high, these are also a reflection of the French social model.

Since deciding in 2008 to reform the research tax credit underpinning innovation and R&D operations, France has offered more generous R&D tax treatment than any other country.

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According to the French National Research and Technology Association (ANRT), it costs less to employ a researcher in France than in the United States, the United Kingdom, Germany, Australia, Canada, and Japan, with France’s research tax credit lowering what companies spend on research personnel. These estimates, based on the companies examined, suggest that the research tax credit and associated grants reduce the cost of employing a researcher by 29%, while the component of the research tax credit incentivizing the employment of junior final-year doctoral and post-doctoral research personnel (“jeunes docteurs”) leads to 1,300 new hires every year (ANRT, 2016).
This survey compares the cost competitiveness of 111 cities in 10 countries: Canada, United States, Mexico, France, Germany, Italy, the Netherlands, the United Kingdom, Australia, and Japan. It covers 19 business operations grouped into four major sectors: manufacturing, digital services, R&D services, and corporate services. Each representative business project is defined, modeled, and analyzed in detail.

International business costs are estimated for a series of 26 significant cost components specific to planning investment projects: labor costs, facility costs, transport, energy, cost of capital, as well as taxes.

The report also analyzes other non-cost-related factors that may nonetheless influence the attractiveness of a business location. These include labor availability and skills, economic conditions and access to markets, innovation level, quality of infrastructure, the regulatory environment, and also the cost of living and quality of life.
In 2016, France was below average among the sample countries for employee income levels (around US$40,718 at constant prices), significantly lower than in the United States (around US$60,154 at constant prices) and Ireland (around US$56,787 at constant prices), but also preceded by the United Kingdom (around US$46,252 at constant prices) and Germany (around US$42,369 at constant prices).

In 2016, labor compensation per employee in France increased across the board by 1.3%, at a similar rate to Germany (1.3%) and the United Kingdom (1.3%). This increase was higher than the one recorded between 2012 and 2014 (0.6%), but slightly lower than that recorded between 2014 and 2016 (1.4%).

France’s successful control of hourly labor costs since 2013 stands out with respect to its leading European rivals.

France’s hourly labor costs across the whole economy increased slightly in 2016 by 1.4%, while slightly greater increases were recorded in EU-28 countries as a whole (1.6%), as well as Germany (2.5%). The United Kingdom saw a 10.1% fall in 2016 after two previous years of rises (up 7.1% in 2014 and 15.1% in 2015). This fall in the United Kingdom arose from an exchange rate effect due to the sharp depreciation of the pound sterling from November 2015 onwards.

In 2014-2016, hourly labor costs in French industry only increased 1.6%, a similar level to the EU-28 (up 1.5%), compared with rises of 2.3% in Germany and 1.0% in the United Kingdom.

In 2016, the annual increase in hourly labor costs in French industry (up 1.6%) was similar to the figure for the EU-28 (up 1.5%), but lower than in Germany (up 2.4%).
In 2016, unit labor costs1 for the whole economy were up in most of the sample countries. The slight increase in France (0.4%) was similar to that in 2014-2016, and stands out from the fall seen across the EU-28 (down 1.1%) and the rises in Germany (up 1.6%) and the United Kingdom (up 2.5%).

Manufacturing sector unit labor costs also fell by 1.1% on average across the EU-28 in 2016. However, large rises were seen in Ireland (up 4.6%) and the United Kingdom (up 3.4%), along with a very small rise in Germany (up 0.3%).

In France, meanwhile, manufacturing sector unit labor costs declined by 1.1% in 2016, after a similar fall in 2014-2016.

This trend can be confirmed by a productivity measurement based on gross value added per hour worked. Across the economy as a whole, productivity per hour worked grew 0.9% in France in 2016 (compared with 0.7% for the EU-28). In the manufacturing sector, productivity per hour worked increased by 2.8% in France in 2016 (compared with 0.5% for the EU-28).

Similar rises were observed in productivity per person employed (0.4% for the whole French economy in 2016, and 2.5% in manufacturing).

1 Unit labor costs are the cost of labor per unit of value added generated, i.e. productivity weighted labor costs. Unit labor cost changes in 2012-2014 and 2014-2016 have been estimated using indices (base 100 in 2010) produced by the OECD.
Cost competitiveness economy-wide declined slightly in the euro zone in 2016, according to estimates, after improving in 2015. However, this general shift obscures diverging trends of various magnitudes from country to country, with falling cost competitiveness in all sample countries.

The slight fall in cost competitiveness in 2013 and 2014 was mainly due to weaker productivity growth. In 2015, France’s cost competitiveness improved markedly, notably due to the cost savings passed on to businesses from the new competitiveness and employment tax credit (CICE), although this preceded a slight decrease in 2016.

Compared with the euro zone, the United States, which had previously stood out from the other sample countries for steadily and sustainably improving its cost competitiveness, has also been confronted by a quickening erosion of these gains since 2012, particularly so in 2015 and 2016. Similarly, Japan’s cost competitiveness increased dramatically between 2012 and 2015, before falling significantly in 2016, while the sharp depreciation in the pound sterling the same year led to a marked improvement in the United Kingdom’s cost competitiveness. The main reasons for these changes have been variations in the strength of the yen and the dollar against other currencies.
In 2016, hourly labor costs in the French manufacturing sector (€38.30) remained relatively high compared with the euro zone average (€32.60) and costs in Italy (€27.80) or Spain (€23.30), but remained lower than in Germany (€38.80).

The competitiveness and employment tax credit (CICE), introduced on January 1, 2013, provides for tax relief equating to 7% of gross payroll (excluding all salaries exceeding 2.5 times the statutory national minimum wage) in 2017.

Furthermore, hourly labor costs in France have clearly dipped since 2013 compared with the euro zone following the introduction of the CICE tax credit and the Responsibility and Solidarity Pact.

As such, between the fourth quarter of 2012 and the second quarter of 2017, labor costs grew less sharply in France than the euro zone average, not only in manufacturing, construction and services (+4.6% in France, versus +6.7% in the euro zone), but also in manufacturing once construction is excluded (+5.5% in France, versus +8.0% in the euro zone).
The French tax system is noteworthy for the burden of social security contributions (37.1% of total revenue in 2015) and, conversely, for the low share of taxes on income, profits and capital gains (23.5% in 2015). Total tax revenues make up a large share of France’s GDP (45.5% in 2015, versus 36.9% in Germany, 32.5% in the United Kingdom, and 26.4% in the United States. However, the wide range of benefits funded by social security contributions should be factored in when assessing this rate (see sub-chapter II.8, Quality of Life).

The tax burden on labor remains relatively high in France. However, in 2016, Germany, and Belgium both imposed a higher tax burden than France on a single person without children earning 100% of average earnings. For a one-earner married couple with two children at 100% of average earnings, France imposed the largest tax burden, just higher than Finland, Italy and Belgium.

Despite one of the highest nominal rates of tax on profits, corporate tax receipts only account for a small share of GDP in France (2.1% in 2015, compared with 2.2% in the United States and 2.5% in the United Kingdom). France’s tax system is noticeable for a high rate of corporate tax, but a relatively narrow tax base, reduced by a number of waivers and exemptions. Corporate tax revenues are therefore quite low compared with the OECD average (2.8% of GDP).
France was ranked poorly in 2016 for the highest marginal rate of corporate tax, which is mostly due to the additional social contribution on earnings of 3.3% payable by very large companies. However, the French government is committed to lowering the corporate tax rate to 25% by 2022 (falling in stages to 31% in 2019, 28% in 2020 and 25% in 2022).

Since reforming its research tax credit in 2008, France has offered businesses more generous R&D tax treatment than any other country, and leads the way among OECD members for government funding of business enterprise R&D expenditure (BERD) and R&D tax incentives, contributing an amount equivalent to 0.39% of GDP.

1 More taxes are included in this calculation than those used to calculate the rate of compulsory deductions.

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**Fig 80 - HIGHEST MARGINAL RATE OF CORPORATE TAX (2017)**

* Includes the additional social contribution on earnings of 3.3% payable by very large companies; furthermore, all companies are eligible for a tax credit amounting to 6% of payroll covering most employees.

Source: Eurostat, Taxation Trends in the European Union

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**Fig 81 - GOVERNMENT FUNDING OF BUSINESS ENTERPRISE R&D EXPENDITURE (BERD) AND R&D TAX INCENTIVES (2014)**

* Data for 2011 ** Data for 2012 ***No data on tax incentives

Source: OECD

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**REFORM OF FRANCE’S RESEARCH TAX CREDIT MAKES IT THE MOST EFFECTIVE R&D TAX INCENTIVE IN OECD COUNTRIES**

The research tax credit is France’s flagship tax measure to encourage companies to expand their R&D operations. All companies with R&D operations in France, regardless of their size or business sector, are eligible.

In 2008, the research tax credit was enhanced, 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 fell from €12 billion in 2008 to €5.9 billion in 2014.

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.
Quality of life and work-life balance contribute to the attractiveness of an economy. The contribution made by government authorities to the provision of collective and individual services (education, healthcare, housing, transport, culture, etc.) has a direct influence on quality of life for households and companies alike. The relationship between the public and private sector in the provision of individual services varies greatly from one country to the next. The public-sector dominated setup in France provides access to a wide array of free high-quality services, particularly in education and healthcare. France is the leading OECD country for out-of-pocket healthcare payments, with remaining costs to individuals significantly below the OECD average.

According to OECD data, France was ranked first among the sample countries for access to healthcare in 2015, ahead of the United Kingdom, Germany and the United States.

Access to healthcare reveals the financial support granted by government towards national health targets. A healthcare system which suffers from inaccessibility may lead to delayed decisions to consult medical professionals, and major health-related and financial consequences arising from belated hospitalization. Access to healthcare is measured by the out-of-pocket payments per capita for health services.

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Fig 82 - ACCESS TO HEALTHCARE (2015)
- PRIVATE OUT-OF-POCKET PAYMENTS PER CAPITA • US$ PPP

Fig 83 - HEALTH SPENDING (2016)
- % OF GDP

Source: OECD
The public-sector share of healthcare and education expenditure is particularly high in France (nearly 80% and more than 90%, respectively).

**Social protection spending** – covering benefits for disability, families/children, housing, social exclusion, old age, illness and healthcare, and unemployment – is more extensive in France than in all other OECD countries, reflecting the very high level of universal social security.

In 2016, public spending on social protection amounted to 31.5% of GDP in France, compared with 25.3% in Germany, 21.5% in the United Kingdom, and 19.3% in the United States.

Public spending on culture, leisure and worship illustrates France’s steadfast commitment to quality of life: France was the third largest contributor as a share of national wealth in 2015, after Finland and the Netherlands, spending the equivalent of 1.3% of GDP.

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**MEASURING INCOME INEQUALITY**

**Methodology**

Inequality in income distribution (revenue, living standards) within a country is usually measured using the **Gini coefficient**, which ranges from 0 (where all incomes are identical) to 1 (where a single individual receives all income). The closer the Gini coefficient is to 1, the greater the inequality. Conversely, a decrease in the Gini coefficient indicates an overall reduction in inequalities.

Income inequality can also be measured using the **income interdecile ratio** (P90/P10) between the lower bound value of the 10% of people with the highest income and the upper bound value of the 10% of people with the least income. The higher this ratio is, the greater the inequality.
The Gini coefficient provides a way of measuring inequality (cf. methodology hereafter). In 2014, France’s coefficient score of 0.30 was well below that of the United Kingdom (0.36) and the United States (0.39), and was in line with Germany (0.29).

Furthermore, the income interdecile ratio (P90/P10) puts France (3.5) below the average for the sample countries (4.1), as well as below Germany (3.7), the United Kingdom (4.2) and the United States (6.4).

Every month, the OECD calculates a ‘comparative price levels’ indicator to compare price increases in OECD member countries. Based on a representative basket of goods and services, it can be used to obtain relative price levels with a baseline country. According to the indicator, prices in Ireland, the United Kingdom, and the United States are higher than in France, while prices in Poland, Spain, Italy, Germany and Japan are lower.

**UNDP HUMAN DEVELOPMENT INDEX**

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

The index was created to bring attention to the fact that the ideal measure of a country’s development lies in people and their abilities, not simply economic growth. It 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 2015, France’s index score was 0.897, placing it among countries with a very high level of human development. France was ranked 21st in the world, after Germany (fourth place, with an HDI score of 0.926), and the United Kingdom (16th place, with an HDI score of 0.910), but ahead of Italy (26th place, with an HDI score of 0.887) and Spain (27th place, with an HDI score of 0.884).

**THE HEALTHCARE SYSTEM REFORM ACT OF JANUARY 26, 2016**

The Healthcare System Reform Act of January 26, 2016 sought to improve daily life for patients and healthcare professionals, creating new fundamental rights, such as the ‘right to be forgotten’ (making it easier for former cancer or hepatitis C sufferers to obtain loans and buy property). Prevention efforts were stepped up in numerous fields (including malnutrition, alcohol, tobacco products, drugs, and HIV), while healthcare access was facilitated by introducing statutory third-party payments for all (where practitioners are paid up front by the Social Security system).
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 socioeconomic 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 well-being and sustainable well-being. Present well-being 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 is ranked among the top 10 countries for several items on the “Your Better Life” interactive index, including:

- Average household net-adjusted disposable income, which at US$29,759 in France is higher than the OECD average of US$29,016.
- In terms of health, life expectancy at birth in France is 82.3 years (85.6 years for women, and 79 years for men), more than two years higher than the OECD average.
- The level of atmospheric PM2.5 – tiny air pollutant particles small enough to enter and cause damage to the lungs – is 14.1 micrograms per cubic meter, in line with the OECD average, but higher than the World Health Organization recommendation of 10 micrograms per cubic meter.
- Voter turnout – a measure of public trust in government and of citizens’ participation in the political process – was 80% during recent elections, higher than the OECD average of 68%.

In a challenging economic climate marked by a hesitant recovery, high unemployment, unprecedented volatility in the financial markets and high levels of government debt, individual welfare merits being made a focal point of economic, social and environmental policies.

To this end, the OECD’s “How’s Life? Measuring Well-Being” report (2011) presents a series of comparative indicators on well-being for all OECD countries and, where possible, other major economies.
In the EU-28, the share of renewable energies in gross final energy consumption was 16.7% in 2015. The EU’s Climate Action targets have been set at 20% for 2020 and 27% for 2030 (see inset hereafter).

Sweden stands out from the other sample countries, having made renewable energies a substantial source for its gross final energy consumption (53.9% in 2015). Finland (33.0%) and Austria (39.3%) also have a high share of renewables. The share of renewable energies in France’s gross final energy consumption was 15.2% in 2015, slightly higher than in Germany (14.6%) and the United Kingdom (8.2%).

As energy demands continue to grow and the environmental protection movement gathers momentum, the ability of countries to position themselves in energy and renewable energy sectors has now become a key factor in their investment attractiveness.

In addition to saving the environment, there is also an economic imperative to achieving green growth, since it generates numerous jobs and opportunities to harness new technologies.
EUROPEAN UNION CLIMATE ACTION

In the last 10 years, the European Union has been committed to pursuing the transition to a low-carbon economy, with targets to lower energy consumption, reduce greenhouse gas emissions and tackle climate change being set in three stages for 2020, 2030 and 2050.1

The 2020 Climate and Energy Package was agreed in 2007, and enacted in 2009. Targets for the year 2020 include:

• Reducing greenhouse gas emissions by at least 20% (from 1990 levels).
• Improving energy efficiency by 20%.
• Increasing the share of renewable energies in EU final energy consumption to 20%.

Good progress is being made towards these targets in the wake of the Paris Agreement (COP 21) in late 2015.

In October 2014, the EU agreed upon the 2030 Climate and Energy Framework setting out the European Union’s ambitious commitments towards the Paris Agreement and including three key targets for the year 2030:

• Reducing greenhouse gas emissions by 40% (from 1990 levels).
• Increasing the share of renewable energies to at least 27%.
• Improving energy efficiency by at least 27%.

These targets are part of the European Commission’s Roadmap for a “low-carbon economy by 2050” that also includes:

• Reducing greenhouse gas emissions by 80% (from 1990 levels).
• Getting contributions from every business sector.
• Achieving a feasible and affordable transition to a low-carbon economy.

1 European Commission Climate Action: https://ec.europa.eu/clima/policies/strategies_en

THE 2015 PARIS CLIMATE AGREEMENT (COP 21)

In December 2015 in Paris, the 195 States negotiating at the COP 21 summit agreed to sign up to a universal and legally binding agreement to tackle climate change. The agreement aims to limit average temperature rises to “well below two degrees above pre-industrial levels” and to pursue efforts to limit such rises to 1.5 °C.

The Paris Agreement will enter into force in 2020, after a number of stages, including revised nation-based commitments in 2018. The agreement acknowledges the shared but differentiated responsibility of each party, meaning that the efforts required will depend on the situation and capacities of every nation. Furthermore, developed countries have committed to finance a US$100 billion-a-year Green Climate Fund to help developing countries transition to a low-carbon economy.

In 2016, electricity generation by the EU-21 relied primarily on fossil fuels (48.7%), nuclear energy (26.1%) and renewable energy sources (25.2%).
Moreover, more than two-thirds of all renewable energy in EU-28 countries in 2015 came from a combination of hydro power (36.4%) and wind (32.3%), followed by biomass (19.0%) and solar power (11.5%).

In 2015, France was the third largest producer in the EU-28 of primary energy from renewable sources (10.4% of the EU-28 total), after Germany (19.0%) and Italy (11.5%), but ahead of Sweden (9.0%), Spain (8.2%) and the United Kingdom (5.8%).

**Hydro power is the mainstay of renewable energy in France,** producing 67.7% of the country’s renewable output in 2016. France is the leading hydro power producer in Europe, generating 63.1 TWh in 2016, or 18.6% of European output, ahead of Sweden (61.2 TWh, or 18.1% of EU-21 output) and Italy (42.3 TWh, or 12.5% of European output).
Carbon dioxide emission levels per unit of GDP (carbon intensity) in European economies are relatively low compared with other regions in the world, and relatively uniform within the EU-28.

France’s very low carbon intensity is partly due to its energy mix. In 2016, 72.3% of French electricity was generated from nuclear technology, 17.5% from renewable energy sources, and 10.2% from fossil fuels. By comparison, fossil fuels accounted for 63.6% of electricity generated in Germany and 62.4% in the United Kingdom.

Not only does France boast low carbon intensity, its carbon dioxide emissions from fuel combustion (per thousand inhabitants) are the fourth lowest after Sweden, Finland and Spain.

Energy intensity of GDP measures the quantity of energy needed for a country to produce one unit of GDP. If we exclude nuclear power, on which the French electricity mix is uniquely dependent, France had the second lowest energy intensity of GDP in 2015 after Ireland.
According to the 16th edition of the EurObserv’ER “State of Renewable Energies in Europe” (2016), 322,300 people were employed in Germany’s renewable energy sector in 2015, compared with 162,100 people in France, and 109,200 people in the United Kingdom.

Renewable energy forms (solid biomass, wind, solar photovoltaic, biofuels, heat pumps, biogas, small hydro, solar thermal, waste, and geothermal) account for the energy needs of 0.56% of France’s population, versus 0.78% in Germany and 0.34% in the United Kingdom.

The leading source of renewable energy employment in France is the biomass sector, representing 30.8% of all jobs.

Turnover in the renewable energy sector in 2015 was €29.6 billion in Germany, €20.0 billion in France, and €19.5 billion in the United Kingdom.

THE ENERGY TRANSITION ACT OF JULY 22, 2015

A new Energy Transition Act was adopted on July 22, 2015, providing for the construction of a “new French energy model” within the next 15 years, and more than 100,000 jobs on a long-term basis.

The provisions of this law were based around a number of key topics, including the energy-efficient renovation of buildings, greater clean transport, the development of renewable energy sources, reduced wastage and promotion of the circular economy, as well as simpler, clearer procedures.

A number of ambitious targets have been set:

• A 40% reduction in greenhouse gas emissions by 2030 (from 1990 levels)
• A 30% reduction in fossil fuel consumption by 2030 (from 2012 levels)
• An increase in the share of renewable sources in final energy consumption from 14% to 32% by 2030, and to 40% in electricity generation
• Halving final energy consumption by 2050 (from 2012 levels)
• Diversified electricity generation, including reducing the share of nuclear power to 50% by 2025
• Halving the volume of waste dumped at landfill sites by 2050
Following the announcement by the United States of its intention to withdraw from the 2015 Paris Agreement, France’s President, Emmanuel Macron, made an open appeal on June 1, 2017 to scientists and researchers, teachers, entrepreneurs, charities and NGOs, students and civil society as a whole to come together and join France in leading the fight against global warming.

This appeal has since taken shape in the form of the “Make Our Planet Great Again” website, through which anyone who would like to commit themselves to environmental projects, carry out research, take action, seek funding or move to France can sign up to register their interest. It will also enable scientists to put themselves forward to conduct research programs in France to develop practical solutions to combat climate change.

Coordinated by the ministries for the Ecological and Inclusive Transition, Europe and Foreign Affairs, Economy and Finance, Higher Education, Research and Innovation, this bilingual French-English website run by Business France is a unique, ambitious initiative with a very practical focus.
Analysis of FDI and jobs generated across France’s regions
Between 2014 and 2016, France attracted 2,650 new foreign direct investment (FDI) projects throughout the country. In all, some 81,400 jobs were created or maintained in France by these investments, with an average of 31 jobs created or maintained by each project.

**Analysis of FDI and jobs generated across France’s regions**

Ile de France (Paris region) was France’s leading FDI recipient during this period, followed by Auvergne-Rhône-Alpes, receiving 21% and 13% of all investments, respectively, or a third of the total. Within France’s regions, the Greater Paris area received 75% of all inward investment in Ile de France (Paris region), while the Greater Lyon area attracted 40% of investment in Auvergne-Rhône-Alpes, ahead of Saint-Étienne and Grenoble.

Beyond this concentration of investments within city areas (métropoles), these two of France’s leading regions for foreign investment, along with Occitanie, stood out for the number of jobs created or maintained, which in each case were below the nationwide average. This can be accounted for by the greater diversity of FDI project types, their greater prevalence, and a relatively lower proportion of more job-intensive manufacturing projects in cities and built-up areas.

Bretagne (Brittany) attracted the least FDI in mainland France from 2014 to 2016, with only 20 investments per year on average during this time, compared with nearly 200 in Ile de France (Paris region). The average number of jobs created or maintained by foreign investment in Brittany (19) was also the lowest in mainland France, while the impact of FDI on the regional economy was similarly the lowest, with only 1.3 jobs created or maintained by foreign investment per 1,000 employed in the region, compared with a nationwide average of 3.5.

The impact of inward investment can also be measured in relation to the economic standing of each of France’s regions. As such, Occitanie – led by the Toulouse city area – and to a lesser extent Grand Est were the two regions that attracted the most FDI compared with their importance to the French economy.

The relative impact of foreign investment on regional employment was at its highest in industrial and/or rural regions. Between 2014 and 2016, 7.6 jobs per 1,000 employed were created or maintained by FDI in Hauts de France, which was twice the national average. Centre-Val de Loire attracted relatively few inward investments – 25 per year, on average, from 2014 to 2016 – but these created or maintained 5.4 jobs per 1,000, while in Bourgogne-Franche-Comté, which attracted 5% of FDI in France, this figure was 4.5 jobs per 1,000.

In the three regions where the impact of inward investment was highest, the average number of jobs created or maintained by FDI was higher than average (67, 53 and 33 jobs per project, compared with 31 for all of France’s regions). Foreign investment was also less concentrated in city areas than in Ile de France (Paris region) and Auvergne-Rhône-Alpes.
France Attractiveness Scoreboard - Analysis of FDI Across France’s Regions

Fig 1 - Foreign Direct Investment in France

Regional aid areas were introduced in the European Union in 1971 for Member States to offer more favorable conditions for businesses through both tax relief (exemptions on corporate tax and property taxes) and state aid paid out to companies over and above the ‘de minimis’ support otherwise permitted. The French Commission for Regional Equality (CGET) promotes action by stakeholders in the French economy, Business France, development agencies, and the France Entrepreneur agency, in addition to providing support to investment projects in regional aid areas through PAT development grants, which are of particular benefit to foreign investments in France. The analysis which follows uses Business France data to examine how these regional aid areas fare for inward investment.

Regional aid area communes attract proportionally more FDI than average

Between 2008 and 2015, 641 (13%) of the 5,083 communes in regional aid areas received at least one foreign direct investment. During this time, inward investment occurred in a grand total of 1,675 (4.7%) of the 35,885 communes nationwide as of January 1, 2016, showing that regional aid area communes made up a sizeable proportion of all communes attracting FDI.

Communes in regional aid areas attracted 1,370 projects, at an average of 2.1 projects for each one that received at least one foreign direct investment during this time, compared with an average of 2.8 projects for all communes receiving at least one investment, showing that regional aid area communes attracted a proportionally lower number of foreign investments.

FDI in regional aid area communes concentrated in major industrial regions and cities

On the whole, regional aid area communes in major industrial regions attracted a majority of foreign direct investment. From a total of 1,370 projects in regional aid area communes, 269 were located in Grand Est, 252 in Hauts de France, and 104 in Auvergne-Rhône-Alpes. Regional aid area communes in the south of the country were also attractive, with 143 projects in Nouvelle-Aquitaine, 157 in Occitanie and 83 in Provence-Alpes-Côte d’Azur. The Nord and Moselle départements each attracted more than 100 foreign investments to their regional aid area communes, while in the west of the country there was a fairly low proportion of FDI in these communes, with 24 projects in Centre-Val de Loire, 32 in Bretagne (Brittany), 59 in Pays de la Loire and 109 in Normandie. Ile de France (Paris region) only attracted 27 projects to regional aid area communes, primarily due to having fewer communes fulfilling the necessary criteria.

1 http://www.europe-en-france.gouv.fr/Centre-de-ressources/Aides-d-Etat/Zonage-AFR/%28language%29/fre-FR
2 5,083 French communes are categorized as being in regional aid areas, and are thus eligible to receive support for job-creating physical investments by large companies and SMEs. Cf. map hereafter.

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ile de France (Paris region)</td>
<td>27</td>
</tr>
<tr>
<td>Centre Val de Loire</td>
<td>61</td>
</tr>
<tr>
<td>Bourgogne-Franche-Comté</td>
<td>69</td>
</tr>
<tr>
<td>Normandie</td>
<td>109</td>
</tr>
<tr>
<td>Hauts de France</td>
<td>252</td>
</tr>
<tr>
<td>Grand Est</td>
<td>208</td>
</tr>
<tr>
<td>Pays de la Loire</td>
<td>59</td>
</tr>
<tr>
<td>Brittany</td>
<td>32</td>
</tr>
<tr>
<td>Nouvelle Aquitaine</td>
<td>143.5</td>
</tr>
<tr>
<td>Occitanie</td>
<td>157</td>
</tr>
<tr>
<td>Auvergne-Rhône-Alpes</td>
<td>104</td>
</tr>
<tr>
<td>Provence-Alpes-Côte d’Azur</td>
<td>83</td>
</tr>
</tbody>
</table>

Table 2 • REGIONAL BREAKDOWN OF PROJECTS IN REGIONAL AID AREA COMMUNES
The most attractive regional aid area communes were mainly in city areas, although a large number of foreign investments were nevertheless received by various smaller intermunicipal authorities, including the Communauté urbaine de Dunkerque and the Communauté d’Agglomération du Havre (26 projects each in 2008-2015).

Between 2008 and 2015, 136 of the 1,370 foreign investments attracted by regional aid area communes were in communes only partially classified in regional aid areas. Most of these had more than 100,000 inhabitants and were part of city areas (métropoles) or intermunicipalities (communautés urbaines). These urban areas, sometimes disadvantaged, can nevertheless draw upon a relatively diversified local economy compared with the average for regional aid area communes. Within these communes, investment projects involving decision-making centers (19 out of 136, or 14%) and R&D operations (10 projects; 7.3%) accounted for a higher proportion of investments than in regional aid area communes as a whole (see hereafter).

3 In particular Lille (47 foreign investments in its regional aid area communes), Montpellier (41), Nice (36), Aix-Marseille (31).

4 Ninety communes were only partially classified in regional aid areas. 10 of these have more than 100,000 inhabitants (Nice, Brest, Nîmes, Montpellier, Clermont-Ferrand, Perpignan, Le Mans, Le Havre, Amiens, Limoges). The other 80 were created from mergers since 2013, and are mostly small communes with an average population of 3,000 inhabitants.
Regional aid area communes becoming increasingly attractive

More than half of the projects we examined (784 out of 1,370) involved production and manufacturing facilities, a much larger share than the national average (30%). Conversely, decision-making center projects (100, or 7.3%, a third of which were in city areas, compared with a nationwide average of 23.4%) and R&D operations (94, or 6.9%, compared with a nationwide average of 9.1%) were substantially under-represented.

Six business sectors accounted for more than 100 projects: energy, recycling and other concessions (128), the automotive industry (128), agri-food, agriculture and fishing (116), chemicals/plastics (108), metals/metalworking (103) and glass, ceramics, minerals, wood, paper (100).

Investment numbers rose between 2011 and 2015 – from 156 in 2011 to 164 in 2013, and 194 in 2015, amounting to a 24.4% increase during this time – at a faster rate than the national average (up 5.2%). There was also a rising trend over the same period in the number of jobs created per project, which were higher in regional aid area communes than in communes as a whole (a 59% increase in jobs created or maintained between 2011 and 2015, versus an average increase nationwide of 17.2%).

Data: Business France Annual Report, INSEE, IGN GÉO FLA 2013 - Produced by: CGET, 2017
Regional aid area communes attracted a higher proportion of job-intensive projects, particularly Hauts de France and Nouvelle-Aquitaine. The 1,370 foreign direct investments recorded in regional aid area communes from 2008 to 2015 created or maintained 75,516 jobs, equating to an average of 55 jobs per project, compared with an average of 37 jobs per project in city areas and 42 jobs per project nationwide. Average job numbers per investment in regional aid area communes were higher than the national average in every region apart from Ile de France (Paris region), Occitanie and Auvergne-Rhône-Alpes, while the number of jobs created per investment in regional aid area communes was over 75 in Hauts de France and Nouvelle-Aquitaine. This trend arose from the larger share of takeover or site expansion projects, leading to a structural increase in the number of jobs created compared with first-time investments, which are generally less job-intensive.

Fig 4 - OTHER FDI IN REGIONAL AID AREA COMMUNES

Data: Business France Annual Report; INSEE, IGN GÉO FLA 2013 - Produced by: CGET, 2017
Analysis of FDI in large towns (2008-2015)

Large towns are defined here as urban areas that play a central role at local level and that also meet a number of different population criteria. Together, they have an aggregate population of nearly 9 million inhabitants (2013 figures) spread across nearly 1,300 communes, or 13.4% of the population of France.

Between 2008 and 2015, these 191 large towns attracted 636 (11.9%) of the 4,767 foreign investments recorded nationwide, and were therefore under-represented for FDI in mainland France.

By comparison, the 15 largest city areas (métropoles) in mainland France as of November 1, 2016 had 16.9 million inhabitants, or 1.9 times as many as all EPCIs centered on large towns, but had attracted 4.3 times as much FDI (2,741.5 investments in 2008-2015).

Thirty-three of the 191 large towns were disadvantaged with respect to three cumulative criteria: the share of social security benefits in disposable household income; the rate of annual population growth; and the rate of compound annual employment growth.

This smaller selection of 33 disadvantaged large towns had a combined population of 1.32 million inhabitants and attracted 109 foreign investment projects in 2008-2015, a share that was broadly in line with their number.

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**Table 3 - FDI in Large Towns**

<table>
<thead>
<tr>
<th></th>
<th>All communes</th>
<th>Communes in large towns</th>
<th>Communes in the 33 most disadvantaged large towns</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of communes</strong></td>
<td>35,885</td>
<td>1,675</td>
<td>1,298</td>
</tr>
<tr>
<td></td>
<td>i.e. one in 21 communes</td>
<td></td>
<td>378</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>those receiving at least one FDI</td>
</tr>
<tr>
<td><strong>Number of projects</strong></td>
<td>4,767</td>
<td>636</td>
<td>109</td>
</tr>
<tr>
<td></td>
<td>i.e. 2.8 projects per commune receiving at least one FDI</td>
<td>i.e. 1.7 projects per commune of this sort receiving at least one FDI</td>
<td>i.e. 2.1 projects per commune of this sort receiving at least one FDI</td>
</tr>
<tr>
<td><strong>Population</strong></td>
<td>67,018,977</td>
<td>8,940,394</td>
<td>1,323,099</td>
</tr>
<tr>
<td><strong>Jobs created or maintained</strong></td>
<td>235,341</td>
<td>34,772</td>
<td>10,681</td>
</tr>
<tr>
<td></td>
<td>i.e. 42 jobs per project</td>
<td>i.e. 55 jobs per project</td>
<td>i.e. 55 jobs per project</td>
</tr>
</tbody>
</table>

Source: CGET estimates, using INSEE and Business France Annual Report data, 2017

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5 The list of large towns was a statistical cross-section based on the following criteria:
- In Île de France (Paris region): Urban areas with 20,000 to 100,000 inhabitants.
- Outside Île de France (Paris region): Urban areas categorized as “major, medium-sized or small urban centers” under land-use zoning criteria.
- Urban areas that are capitals of their département with fewer than 100,000 inhabitants.

6 The 15 métropoles are: Nice (legislation passed in 2010), the 13 métropoles formed by the MAPTAM Act (Bordeaux, Brest, Grenoble, Lille, Montpellier, Nancy, Nantes, Rennes, Rouen, Strasbourg, Toulouse, as well as Paris and Aix-Marseille, which have special status) to which Lyon can be added as a local authority with special status.

7 EPCI: établissement public de coopération intercommunal (public establishment for cooperation between local authorities); after a first wave in 2015-2016, the number of EPCCs rose to 1,266 following further cooperation initiatives in 2017.

8 Legal population as of January 1, 2013 (data up to January 1, 2013). Scope: Mainland France including Corsica, plus the overseas départements of Guadeloupe, French Guiana, Martinique and Réunion; jurisdictions in force as of January 1, 2015.
Fairly uneven geographic breakdown of FDI in large towns

Analysis of large towns alone shows that three regions stood out as being particularly attractive to foreign investment: Grand Est (147 projects in large towns), Auvergne-Rhône-Alpes (127) and Hauts de France (73), which together attracted more than half of all foreign direct investment in large towns. The scope of these figures corresponds broadly to the most industrialized regions in France, with the exception of Île de France (Paris region), which was under-represented quite naturally in this population due to the low number of large towns in the region around France’s capital.

The regions whose large towns attracted the least foreign investment, excluding Île de France (Paris region), were Provence-Alpes-Côte d’Azur, Pays de la Loire and Bretagne (Brittany), with fewer than 20 projects each.

Fig 5 - FDI IN LARGE TOWNS

Data: Business France Annual Report; INSEE, IGN GÉO FLA 2013 - Produced by: CGET, 2017
The geographic breakdown of FDI in large towns was relatively uneven, with 14 of these towns each attracting more than 10 foreign investments in 2008-2015, led by Saint-Louis-Bâle (the French part of Basel in the Haut-Rhin département, with 19 projects), Thionville, Troyes and Annemasse (each with 18 investments). These EPCIs attract on the whole the most high value-added FDI (e.g. decision-making centers, R&D operations). In all, the 191 large towns received 636 foreign investments, with an average of 3.3 projects per EPCI.

Forty-one large towns attracted only one foreign investment, while 47 did not receive any at all. This population does not include any of the 33 disadvantaged EPCIs with respect to the three criteria mentioned above: only three EPCIs centered on large towns did not receive any foreign investment (Cherbourg-Octeville, Guéret, Laon).

The prevalence of foreign manufacturing investments in large towns

FDI in large towns was noticeable for the prevalence of production/manufacturing investments (59% of projects in these areas, versus a nationwide average of 31%). Major industrial sectors were fairly equally represented within projects such as these (68 in machinery/mechanical equipment, 55 in chemicals/plastics, 49 in agri-food, agriculture and fishing, etc.).

Foreign investments with the potential to generate greater value added were under-represented in large towns compared with the nationwide average: only 44 in 636 projects involved R&D, engineering/design activities, compared with 282 projects in city areas. A similar comparison can be made concerning decision-making centers, with 49 foreign investments in EPCIs centered around large towns, versus 992 in city areas.

The most socio-economically disadvantaged towns can nevertheless be attractive FDI destinations

The list of the 33 most disadvantaged large towns drawn up based on three indicators highlights the socio-economic problems faced by these intermunicipal authorities. However, these 33 areas are not necessarily among those that attract the least FDI.

Between 2008 and 2015, the proportion of FDI inflows to the 33 most disadvantaged towns was broadly in line with all towns. Moreover, the average number of jobs created or maintained in the 33 towns was actually much higher (92 jobs per project) than the nationwide average (42 jobs per project).

Some areas, such as the Calais and Forbach urban areas, which each received 11 foreign investments, recorded better figures than the nationwide average for towns. Nevertheless, seven of them only attracted one project, while three others didn’t receive any at all. Most inward investments attracted by these areas were projects involving production and manufacturing operations.

While large towns were less attractive than cities, they nonetheless remain attractive local centers for their urban, semi-urban or rural peripheries. Their capacity to attract foreign direct investment is a clear sign of their contribution to economic development in the surrounding area.

In conclusion, this analysis by the CGET on the differences between regions, city areas, large towns and regional aid areas shows that attractiveness to foreign investment is anything but predetermined. It calls for joined-up national policy to establish priority areas for economic regeneration to underpin support and co-ordinate stakeholder involvement, along with nationwide infrastructure networks (transport, digital, public services) and locally led measures to create ecosystems that are attractive to investment, especially inward investment. The buoyant attractiveness, relatively speaking, of specific settlements, including disadvantaged areas, shows that ambitious policy and high stakeholder involvement can have a significant positive impact on local and regional economic development.
Business France is the national agency supporting the international development of the French economy, responsible for fostering export growth by French businesses, as well as promoting and facilitating international investment in France.

It promotes France's companies, business image and nationwide attractiveness as an investment location, and also runs the VIE international internship program.

Founded on January 1, 2015 through a merger between UBIFRANCE and the Invest in France Agency, Business France has 1,500 personnel, both in France and in 70 countries throughout the world, who work with a network of public- and private-sector partners.

For further information, please visit: www.businessfrance.fr

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