



TECH BOOK 2018 EDITION

FRANCE'S ECOSYSTEM & STARTUPS IN INTERNATIONAL RANKINGS

Distinguishing between perception & reality



TECH BOOK

*France's ecosystems
and startups
in international
rankings*

2018
EDITION

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FOREWORD



PASCAL CAGNI

Chairman of the Board, Business France,
and Ambassador for International Investment



MAKING THE FRENCH TECH ECOSYSTEM STRONGER

France is operating in a globalized market economy, and I am confident that thanks to its many strengths and the political and economic changes under way France can really benefit from global competition. With its rich history and modern outlook, France is a country that should be moving forward with a winner's attitude.

There are an increasing number of signs that France is a great place to do business. Testament to the country's attractiveness with regard to technology and innovation is the announcement from Californian unicorn Symphony, which is valued at US\$1 billion, that it decided to set up its first European R&D center in the Sophia Antipolis technology park near Nice. Meanwhile, H3 Dynamics, a pioneering Singapore-based startup in the telerobotics (drones) sector, has chosen Paris as its EMEA headquarters.

Another sign of France's attractiveness is the increasing number of fundraising projects carried out by startups, with the amount reaching €3.185 billion in 2017 and 52 transactions conducted by foreign funds, up 62% on 2016, according to American data specialist, CB Insights. Three of the biggest fundraisers were Accel Partners (United States), Index Ventures (United States), and Apiton Capital (United Kingdom).

During my travels, I have seen a growing interest in the creative and dynamic side of French Tech, as well as in the reforms that were implemented a year ago. However, a number of misconceptions still remain, and there is still a lack of knowledge surrounding the aims of the government reforms. Careful persuasion is required to rectify the situation and the whole team at Business France is working immensely hard to achieve this.

Business France's aim is to come up with and implement a strategy of international attractiveness along with French Tech key players, entrepreneurs, and investors in order to improve France's position, make the most of new talent, and recognize the country's potential in terms of investment and technology.

This 'Tech Book' has a threefold objective: **to provide an overview of the French entrepreneurial ecosystem enabling us to promote it better on the global stage; to help Business France identify the action that needs to be taken to make French SMEs more competitive as it supports them in their international development and position France as an attractive destination for innovative talent; and to identify where action must be taken to move forward with the country's digital revolution and make France one of the leaders in Industry 4.0 and a top knowledge-driven economy.**

EDITORIAL



CHRISTOPHE LECOURTIER
CEO of Business France

“ Supported by effective financing systems and renowned research institutions, France, with Paris at the top, is a mature ecosystem for startups. ”



A NEW ENTREPRENEURSHIP DYNAMIC IS COMING TO THE FORE

In recent years, the French government has shown a huge commitment to supporting innovative initiatives, attracting foreign investors and making France a *bona fide* “Digital Republic”. In just a few short years, France has become an ideal place for new startups for a number of reasons.

A series of initiatives have been launched to further develop and promote the French ecosystem, as well as to coordinate innovation efforts between the government, public services, the private sector, universities and incubators. Our joint efforts have enabled us to challenge certain perceptions of France, in particular those held by opinion leaders, whose international rankings have now taken into account the country's significant advances in recent years.

Supported by effective financing systems and renowned research institutions, France, with Paris at the top, is a mature ecosystem for startups. There are plenty of incubators across France who have helped startups to grow, offering them support, tailor-made advice and help from a network of experts.

One place where startups have been able to thrive is STATION F, a 34,000 sq. m. campus which opened in 2017, with space for more than 1,000 new companies. It is also home to 3,000 workstations spread across 30 international support programs, with incubators including HEC, Edhec, Insead, IFM, and Ponts et Chaussées, as well as accelerators such as Private Sales, Facebook, Microsoft, Havas, TF1, LVMH, and Thalès.

The French capital has also produced a number of success stories that have captured the attention of investors. One such company is Devialet, which specializes in acoustic engineering and which raised €100 million in 2016, having won more than 60 awards worldwide. Another example is ManoMano, which created a gardening and DIY online platform and which raised more than €70 million from several French and international investors, including General Atlantic, Piton Capital, Partech Ventures, and Bpifrance.

France is the leading country in Europe for business creation. Consequently, a new entrepreneurship dynamic is coming to the fore in which

co-working spaces, accelerators and incubators are thriving. France is home to an already rich fabric of innovative startups in wide-ranging fields such as connected devices, biochemistry, fintech and food-tech. There are already more than 9,400 startups in France. French firms stand out for their ability to integrate technological innovations rapidly and to enter into innovative markets, enabling them to become leaders in cutting-edge sectors such as drone technology, immunization and robotics.

In this context, a number of international rankings comparing the attractiveness of different countries and cities for startups have emerged in recent times. **This ‘Tech Book’ seeks to examine France’s place in a competitive environment and to provide an overview of the French entrepreneurial ecosystem, encompassing both its strengths and weaknesses, in a bid to distinguish between apprehension, perception, and reality. Ultimately, it seeks to encourage us all to continue with our collective efforts to promote the French entrepreneurial ecosystem on the world stage.**

-1-

*France's ecosystems
and startups
in international
rankings*

**EUROPEAN INNOVATION
SCOREBOARD 2017**
European Commission

12

**DIGITAL ECONOMY
AND SOCIETY INDEX 2018**
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**GLOBAL ENTREPRENEURSHIP
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EUROPEAN INNOVATION SCOREBOARD 2017

European Commission

JUNE 2017

The 2017 European Innovation Scoreboard published by the European Commission assesses the research and innovation performances of EU Member States, as well as candidate and associated countries (the Former Yugoslav Republic of Macedonia, Iceland, Israel, Norway, Serbia, Switzerland, Turkey and Ukraine) and key EU economic partners (the United States, Canada, Japan, South Korea, Australia, and the BRICS nations).

KEY FINDINGS

The 2017 European Innovation Scoreboard ranked EU Member States in four categories based on their innovation performance:

◆ **Innovation leaders:** Germany, Denmark, Finland, the Netherlands, the United Kingdom, and Sweden, all of which performed well above the EU average (by 20% or more).

◆ **Strong innovators:** Austria, Belgium, France, Ireland, Luxembourg, and Slovenia, all of which performed above or close to the EU average (between 10% below and 20% above).

◆ **Moderate innovators:** Croatia, Cyprus, Spain, Estonia, Greece, Hungary, Italy, Latvia, Lithuania, Malta, Poland, Portugal, Czech Republic, and Slovakia, all of which performed below the EU average (by between 10% and 50%).

◆ **Modest innovators:** Bulgaria and Romania, which performed well below the EU average (by 50% or more).

Sweden once again took first place in the standings, which remained relatively stable. Only the United Kingdom changed performance group, joining the innovation leaders category.

France remained in 11th place (strong innovators group), with the United Kingdom ranked fifth (up three places) and Germany sixth (down two places).

FRANCE'S ADVANTAGES

- ◆ **France's highly skilled workforce:** 44% of people aged between 25 and 34 hold a university degree, compared with 30.5% in Germany, and 18.8% of the population aged between 25 and 64 attended training during the month before these results were recorded, with the European average being 10.8%.
- ◆ **Several indicators in the report reflect the performance and attractive nature of France's research system:** France is ranked fourth in the EU for the number of non-EU doctorate graduates (40%), and the rate of scientific publications co-written with international authors is 42% higher than the European average, with French researchers behind 11% of the world's most cited scientific publications.
- ◆ France is ranked fourth in the EU after Denmark, Sweden and Finland in terms of the number of people to go into entrepreneurship by choice rather than necessity. This underlines the innovative nature of the French economy.
- ◆ **Corporate finance is also a strong point for France,** with scores above the EU average for public sector R&D expenditure as a percentage of GDP - France is ranked 11th in the EU with 0.74% of GDP - and risk capital as a percentage of GDP, for which France is ranked seventh in the EU.
- ◆ **The report also highlights the innovation capacity and active nature of French companies:** France was ranked 10th in the EU, well above the European average, for the introduction of products or innovative processes and seventh for SMEs with marketing or organizational innovations (7th). In addition, 13.2% of French SMEs work on innovations in partnership with other companies, putting France five places ahead of Germany for this criterion.
- ◆ These French forces in the field of innovation result in a high proportion of high or medium technology products in the total exports of French goods (58.6%, compared with 54.8%

in the United Kingdom) and in a high proportion of innovative products as part of French companies' turnover (ranked fifth in the EU with 15%, ahead of Germany, which is ranked seventh with 13.3%).

Regional innovation index

A regional version of the European Innovation Scoreboard has also been published. Using a smaller number of indicators and disaggregated data, we examine the innovation performance of 220 regions in 22 European Union countries, as well as in Norway, Serbia and Switzerland. In contrast to the EIS, the regional innovation dashboard focuses more on SMEs and innovation.

It shows that the most innovative regions are in the highest ranked countries in the country scoreboard. The top three regions in the European Union are Stockholm in Sweden, Copenhagen in Denmark, and the southeast of the United Kingdom. In Europe as a whole, the Zurich region of Switzerland is the most innovative.

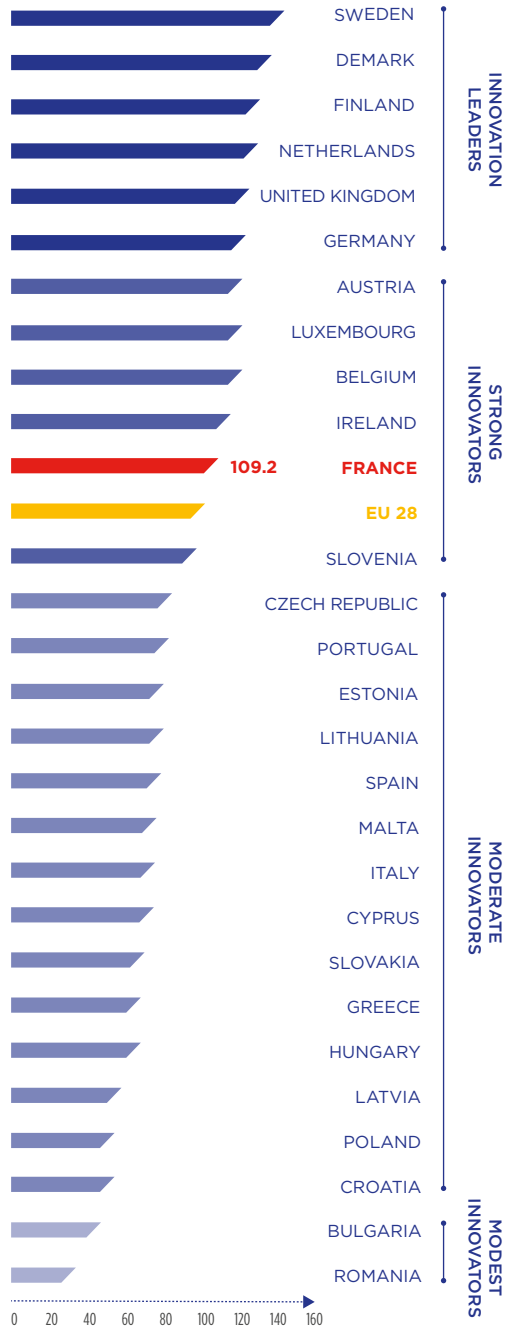
As with the countries, regions are classified as "innovation leaders", "strong innovators", "moderate innovators" and "modest innovators".

The Ile de France/Paris region features in the group of "leading" regions, along with the Auvergne-Rhône-Alpes region. The remaining regions of mainland France are featured in the "strong innovators" category.

POINTS TO WATCH

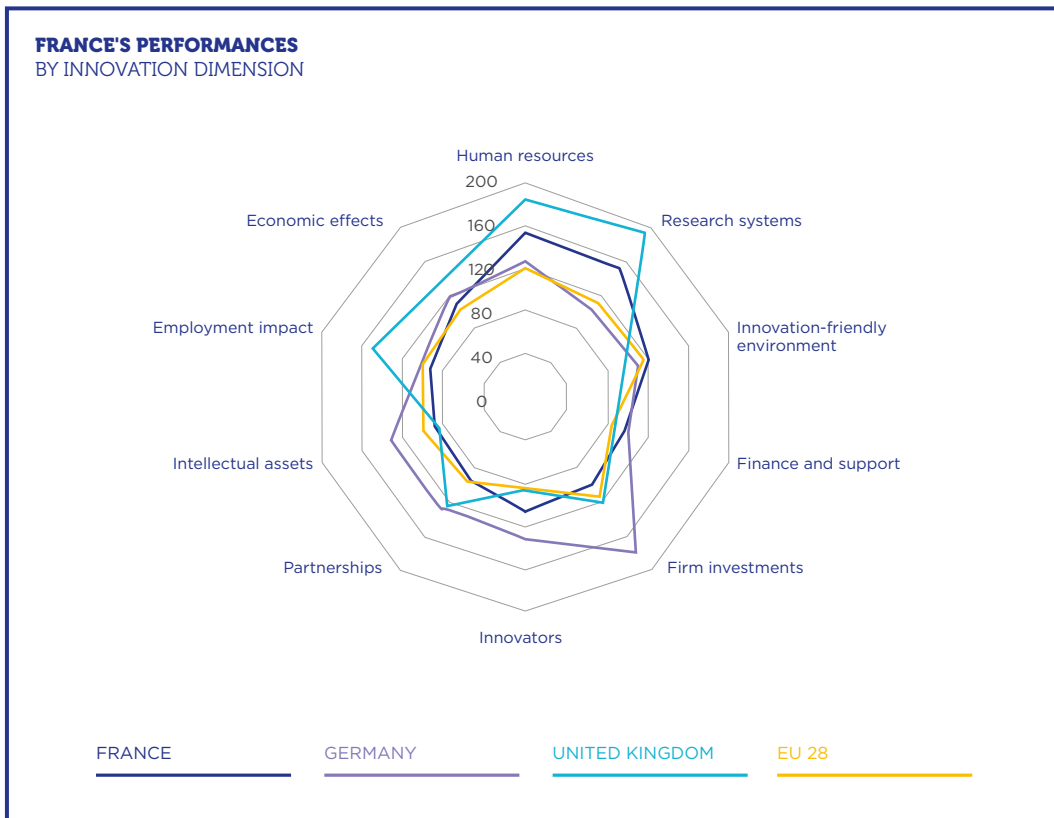
- ◆ France was ranked lower than other EU countries for non-R&D innovation expenditure (0.5% of turnover, versus 1.3% in Germany), community trademarks, and community designs.
- ◆ License and patent revenues from abroad were lower than the EU average; conversely, this was also the indicator against which France made the most progress.
- ◆ The innovative capacity of French companies does not translate sufficiently into jobs, with 14.2% of jobs in knowledge-intensive activities (compared with 14.8% in Germany and 18.4% in the United Kingdom) and 4% of employment which corresponds to high-growth firms in innovative sectors (compared with 4.5% in Germany and 6.9% in the United Kingdom).
- ◆ France is below the European average for the share of high value-added services in total French services exports with 67%, compared with 74.7% in Germany and 82.9% in the United Kingdom.

INNOVATION INDEX SCORES FOR EU MEMBER STATES IN 2016 (INDEX 100)



“*France has incredible engineering talent and a unique set of values and aesthetics making its talent and environment uniquely attractive in an international context. Still, there are challenges in hiring and firing that need to be fixed before the current startup excitement can be a trend and not simply a fad.*”

Ian Rogers
Chief Digital Officer, LVMH





Key figures

#1
**COUNTRY FOR TOP
PERFORMING
COMPANIES**

with 97

(ahead of the UK, 92,
and the Netherlands, 50)

Source: *Technology Fast 500*
EMEA 2017, Deloitte

FRANCE

HOME OF THE TOP 3
most cited European
organizations in
research articles on
artificial intelligence

(CNRS, Paris Saclay University, INRIA)

Source: *The Nikkei & Elsevier*

#1
IN EUROPE
in the top 100
Global Innovators

Source: *Clarivate Analytics*

6th
GLOBAL EXPORTEUR
of high-tech
products

Source: *World Bank*



METHODOLOGY

The scoreboard methodology has undergone extensive revision this year

in order to adapt the previous framework to changing priorities for action, economic theories and available data. Three indicators have been deleted, five have been added, and six have been modified.

The new framework distinguishes four broad types of indicators and ten dimensions of innovation, covering a total of 27 indicators.

- ◆ **The framework conditions** reflect the main drivers of innovation that are external to business and encompass three dimensions of innovation: human resources, attractive research systems, and an innovation-friendly environment.
- ◆ **Investments** highlight public and private investment in research and innovation through two dimensions: financing and aid and business investment.
- ◆ **Innovation activities** show the efforts that companies make in terms of innovation and are grouped into three dimensions of innovation: innovators, partnerships and intellectual assets.
- ◆ **The impacts** illustrate the effects of firms' innovation activities in two dimensions of innovation: employment impacts and sales effects. Since the revisions to the methodology make it impossible to make comparisons with previous years, the scoreboard has recalculated all the scores by indicator in order to highlight changes between 2010 and 2017.

The countries are now classified according to their changes compared with the EU average in 2010.

DIGITAL ECONOMY AND SOCIETY INDEX 2018

European Commission

MAY 2018

The Digital Economy and Society Index (DESI) is a composite index put together by the European Commission that is designed to assess the progress of the European Union's 28 Member States towards a digital economy and society.

The Digital Economy and Society Index offers a comparative diagnostic of each member country according to five components (connectivity, human capital, internet use by individuals, technology integration within enterprises, and public services online), and serves to highlight themes where particular efforts must be made by EU member states. Ongoing reforms are examined in the detailed profiles of each country. The index also tracks changes in scores over time.

KEY FINDINGS

Denmark, Finland, Sweden and the Netherlands came out as the most digital countries. The United Kingdom and Germany remained stable, ranked seventh and 14th respectively, while the average score for all European countries rose by 3.2.

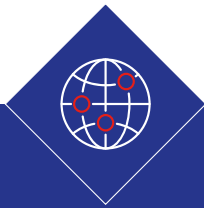
FRANCE'S ADVANTAGES

◆ **France was well placed in the standings, ranking ninth among EU countries in the**

digital public services and human capital dimensions. In digital public services, France was ranked fourth for the open data indicator, due in particular to a suitable legal framework, while 67% of people use eGovernment online resources, compared with 39% in Germany and 58% on average in Europe. France also comes out higher than the EU average for the extent of online services.

◆ **Human capital was the dimension in which France scored best,** finishing in 11th place in Europe, with 83% of the French population using the internet, more than the EU average (81%), while 57% of French citizens had at least basic digital skills. France also stood out for the number of science graduates, coming ninth in Europe with 21.4 graduates per 1,000 individuals aged between 20 and 29.

◆ **France also performed well in the integration of digital technology dimension, following greater uptake of digital technology by French companies:** 38% of French firms with more than ten employees were engaged in electronic information sharing (ranking France 10th), and 11.1% of SME turnover was made from eCommerce.



Key figures

70%
OF FRENCH ADULT INTERNET
USERS made purchases
online in 2016

Source: Ipsos/Paypal, 2016

81.7 billion
IN E-COMMERCE
in 2017,
+14.3% on 2016

Source: Fevad

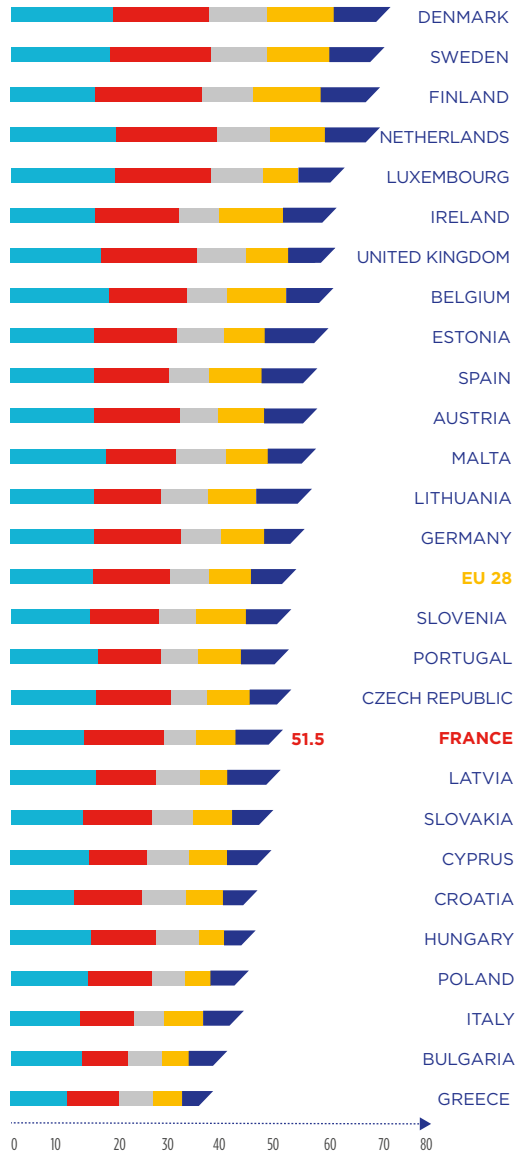
#1
IN EUROPE
for broadband
rates

Source: Digital Economy and Society Index

38%
INCREASE IN MOBILE
INTERNET SALES
in one year

Source: Fevad

DIGITAL ECONOMY AND SOCIETY INDEX 2018



◆ **In the connectivity dimension, France reported very high fixed broadband coverage** (more than 99.5% of the population, ranked third in Europe), while fixed broadband prices were lower than the EU average, ranking France first in Europe.

POINTS TO WATCH

◆ Despite gaining one place in 2018, connectivity was the dimension in which France was ranked lowest, coming 24th. Compared to other Europeans, French people do not access much information online (61% compared with the European average of 72%), nor do they listen to much music or watch many videos. They are ranked last for the use of social networks and video calls. However, France is ranked above average for online banking (72% of people who used the Internet in the last three months used online banking) and online shopping (76%, ranked seventh in Europe).

French internet users made less use of the internet to read news online (56%, 27th place) or for music, videos and games (75%, 21st) than the EU average, and were ranked last for use of social networks.

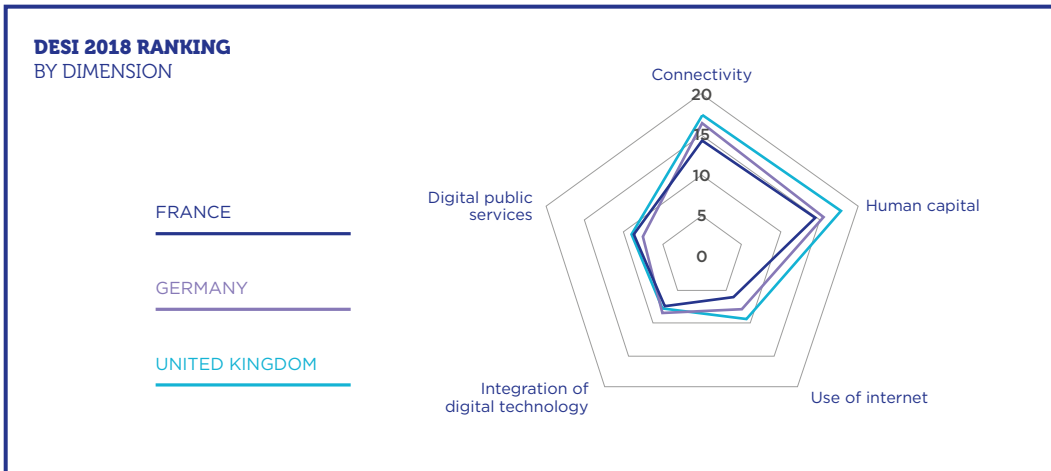
French companies did not yet use the internet as much as their European counterparts for RFID services (15th place), social media (21st), and foreign sales (19th, with just 7.4% of SMEs).

“*The entrepreneurial spirit has never been so strong in France [...] The initiatives launched by 'La French Tech' have undoubtedly contributed to this change [...] France has real advantages in terms of innovation!*”

Pierre-Emmanuel Calmel
Chairman and CEO, Devialet

◆ France’s level of connectivity is below average, particularly due to a low 4G and fast to ultra-fast broadband coverage, while only 18% of people had a fast broadband subscription. This difference is partly due to low population density in rural areas.

◆ France’s level of connectivity is below average, in particular due to a low 4G coverage rate and fast, ultra-fast broadband (16% of French households subscribe to ultra-fast internet). This difference is partly due to low population density in rural areas.





METHODOLOGY

The index is based on 34 indicators, divided into five dimensions:

- ◆ **Connectivity:** This dimension comprises nine indicators measuring the roll-out and quality of digital networks, such as coverage and take-up of fixed and mobile broadband (percentage of households) along with 4G and NGA coverage.
- ◆ **Human capital:** Digital user skills are assessed in this dimension, which comprises four indicators – percentage of internet users, number of ICT specialists, individuals with basic digital skills, and STEM (science, technology, engineering and mathematics) graduates.
- ◆ **Use of internet:** Seven indicators are used in this dimension to identify the reasons for using online services – news, video on demand, video calls, online games, banking services, shopping, and social networks.
- ◆ **Integration of digital technology (by businesses):** This dimension comprises eight indicators, including electronic information sharing, e-invoices, selling online, and social media.
- ◆ **Digital public services:** This dimension has four indicators – percentage of users of e-government services, use of pre-filled forms, online service completion, and open data.

The European Commission also enables users to test different weights for each indicator online and see how they affect the overall results. The index has been recalculated for previous years to take into account the slight methodological changes made this year and the updating of some data (there are three new indicators). The European Commission offers detailed country profiles on its website.

GLOBAL ENTREPRENEURSHIP INDEX 2018

*Global Entrepreneurship
and Development Institute (GEDI)*

NOVEMBER 2017

According to the Global Entrepreneurship Index 2018, published by the GEDI, France has a robust entrepreneurial environment. France's entrepreneurial culture admittedly remains less bold than that of Germany or the United Kingdom, even though French startups and entrepreneurs have recognized qualities in creating and absorbing new technologies that place them among the best-in-class globally.

Published annually, this composite index aims to measure and rank the ability of 137 countries to offer an environment conducive to entrepreneurship, as well as the emergence and success of startups. Its authors define an economy's entrepreneurial ecosystem as a combination of three components: the country's entrepreneurial culture (entrepreneurial attitudes sub-index), the characteristics of entrepreneurs and their businesses (entrepreneurial abilities sub-index) and startups' ambition to succeed, as measured by their efforts to establish their products and penetrate foreign markets (entrepreneurial aspirations sub-index).

KEY FINDINGS

- ◆ The United States held onto the top spot this year, followed by Switzerland and Canada.
- ◆ **France was placed 10th out of 137 in the 2018 rankings, and took seventh place in Europe. France gained three places from 2017.**
- ◆ There were 13 European countries in the top 20, with Switzerland dominating the European rankings, followed by the United Kingdom (4th, up five places), Denmark (6th, down one place), and Germany (15th, down three places). The United Kingdom was the country with the highest increase in score this year.

“What I think is unique about Station F is the scale of it – thousands of entrepreneurs all in the same room. I think it could be the start of something really exciting.”

Nathan Blecharczyk

Co-Founder and Chief Strategy Officer, Airbnb

COUNTRY	GEI RANK	GEI INDEX	ATTITUDE RANK	ATTITUDE INDEX	ABILITIES RANK	ABILITIES INDEX	AMBITIONS RANK	AMBITIONS INDEX
UNITED STATES	1	83.6	2	80.0	2	86.0	2	84.9
SWITZERLAND	2	80.4	11	69.5	1	86.4	1	85.5
CANADA	3	79.2	5	77.9	5	79.9	3	79.9
UNITED KINGDOM	4	77.8	7	73.6	4	83.3	4	76.3
AUSTRALIA	5	75.5	3	79.2	8	76.0	8	71.2
DENMARK	6	74.3	8	71.9	3	84.5	16	66.5
ICELAND	7	74.2	1	82.3	9	69.9	9	70.3
IRELAND	8	73.7	14	67.2	6	78.9	5	75.0
SWEDEN	9	73.1	9	71.1	7	78.7	13	69.5
FRANCE	10	68.5	17	61.4	10	69.7	6	74.4
NETHERLANDS	11	68.1	6	77.4	14	65.3	22	61.7
FINLAND	12	67.9	4	79.0	16	62.9	21	61.8
HONG KONG	13	67.3	12	69.4	17	62.5	10	70.2
AUSTRIA	14	66.0	13	67.3	13	66.4	17	64.4
GERMANY	15	65.9	18	61.1	12	67.2	14	69.4
ISRAEL	16	65.4	16	63.3	20	60.8	7	72.2
BELGIUM	17	63.7	23	53.8	11	67.8	12	69.5
TAIWAN	18	59.5	22	54.0	24	54.8	11	69.6
CHILE	19	58.5	10	70.3	27	50.9	30	54.3
LUXEMBOURG	20	58.2	28	49.2	15	62.9	18	62.6
NORWAY	21	56.6	15	66.1	19	60.9	44	42.8
QATAR	22	55.0	29	48.4	25	54.5	19	62.2
ESTONIA	23	54.8	19	57.6	22	55.7	35	51.0
SOUTH KOREA	24	54.2	20	55.6	29	50.1	27	56.8
SLOVENIA	25	53.8	21	54.4	23	55.0	33	52.1

FRANCE'S ADVANTAGES

◆ **It was for its entrepreneurial ambition that France received its best overall ranking (6th).**

It achieved its best score on the process innovation pillar, ranked fifth in the world and second in Europe, after Belgium. It was well ranked on the process innovation and internationalization pillars thanks to its economy that offers easy access to foreign investors and its market share in global exports.

◆ **The score is an acknowledgment of the quality of France's research institutions**

and the high level of domestic research and development expenditure per capita, as well as ease of access to scientists and engineers. French companies are able to offer new products to their customers and use innovative technologies. France was ranked 15th on the venture capital pillar, which takes into account both the depth of the financial markets and the number of non-institutional investors, as well as the amounts they have invested over the last three years.

◆ **France was ranked 10th on the entrepreneurial abilities sub-index, 11th on technology absorption and 12th on competition.** Entrepreneurial absorption is the share of firms active in the technology sectors and the ease of firms to incorporate innovations, as measured by the WEF Global Competitiveness Report. Competition takes

into account aspects such as the competition faced by new firms, the degree of corporate concentration as measured by the WEF and the effectiveness of institutions specializing in competition control.

◆ Despite a less favorable ranking on the entrepreneurial attitudes sub-index (17th), **France was ranked 12th in terms of risk acceptance.** It secured 11th place on the networking pillar, ahead of both the United Kingdom and Germany. Lastly, **France offered advantages that enable the matching of skills to businesses** thanks to its high level of urbanization and the quality of its infrastructure.

POINTS TO WATCH

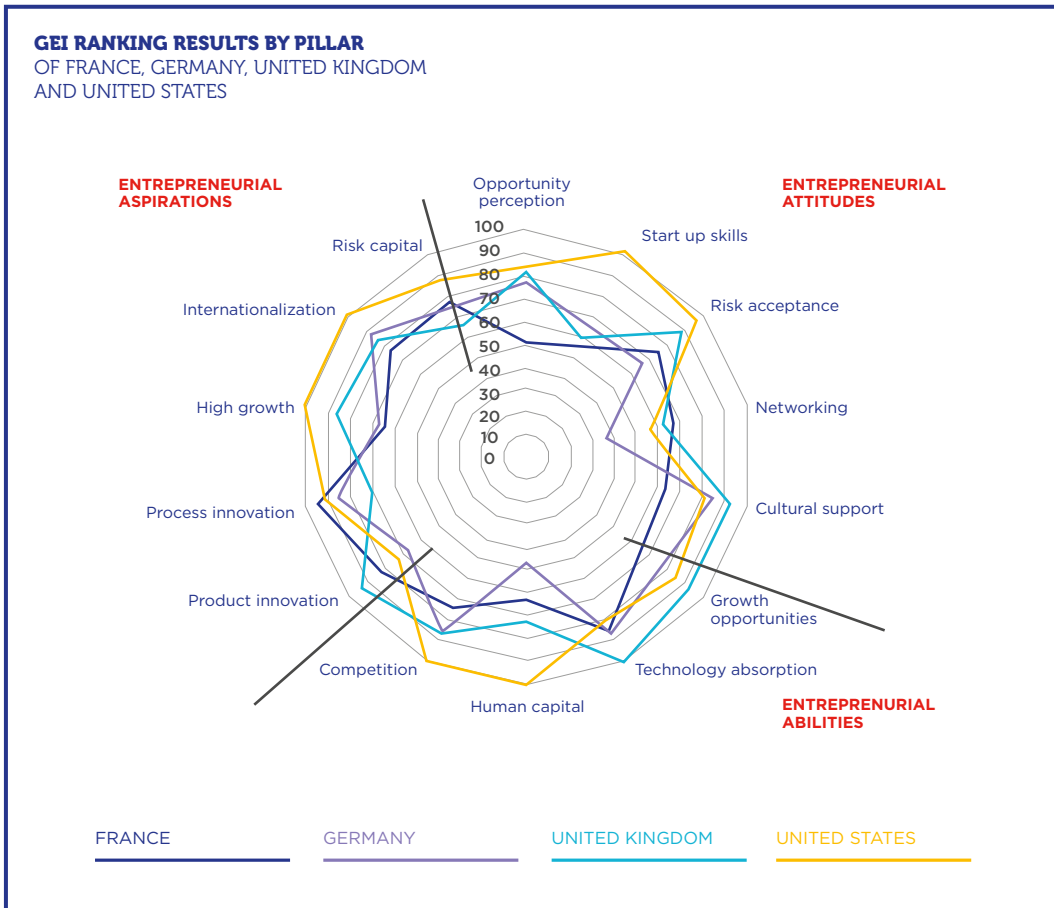
◆ **French people's attitude toward entrepreneurship was an obstacle to business growth.** France was toward the lower end of the standings on individual variables linked to opportunity perception, self-assessment of skills, fear of failure, social recognition of business leader status and familiarity with entrepreneurs.

◆ France was also one of the lowest-ranked countries for training and development of human resources and on the regulatory environment in the labor market, within the human capital pillar of the entrepreneurial abilities sub-index.

“ Paris benefits from a great political environment right now. We have a young president who is startup friendly. France has capital, tax-incentive measures for entrepreneurs, and a great disruptive mindset. ”

Xavier Niel

Founder, Iliad, School 42, and STATION F





Key figures

9,500
STARTUPS
in France

Source: La French Tech

45%
OF FRENCH PEOPLE
want to start
their own business

Source: BNP Paribas-Opinionway

591,000
COMPANIES CREATED
in France in 2017,
up **6.7%** on 2016

Source: INSEE

#1
IN EUROPE
FOR ENTERPRISE
CREATION IN 2015
ahead of the UK
and Spain

Source: Eurostat

18%
OF FRENCH PEOPLE
INTEND TO START A
BUSINESS WITHIN 3 YEARS

(Leading OECD country ahead of the USA, 15%,
Ireland, 12%, and the UK, 7%)

Source: Global Entrepreneurship Monitor, 2017/2018



➤ METHODOLOGY

For this fourth report, the Global Entrepreneurship Index sought to measure the various facets of entrepreneurial ecosystems in 137 countries.

The overall index comprised three sub-indices (attitudes, abilities and aspirations) made up of 14 pillars, each based on one 'individual' and one 'institutional' variable. These variables may themselves consist of a number of indicators. For example, the attitudes sub-index included a 'startup skills' pillar, comprising an individual variable 'the percentage of the 18-64 aged population claiming to possess the required knowledge/skills to start a business' and an institutional variable that aggregated the gross enrolment ratio in tertiary education and a survey on the quality of science teaching in schools. Variables can be statistical indicators, survey responses or composite indices.

The pillars were broken down by sub-index as follows:

- ◆ **The country's entrepreneurial culture** (entrepreneurial attitudes sub-index): opportunity perception, startup skills, risk acceptance, networking, and cultural support.
- ◆ **Characteristics of entrepreneurs and their businesses** (entrepreneurial abilities sub-index): opportunity startup, technology absorption, human capital, and competition.
- ◆ **Startups' ambition to succeed** (entrepreneurial aspirations sub-index): product innovation, process innovation, high growth, internationalization, and risk capital.

Each of the three sub-indices was calculated as the weighted average of its four or five constituent pillars, and the overall index as the straight average of the three sub-indices.

The methodology underwent significant changes in 2016: the method used to calculate the index was revised and nine institutional variables were added, as well as four variables measuring the entrepreneurial ecosystem.

EY FRENCH VENTURE CAPITAL BAROMETER

EY

JANUARY 2018



TECH FUNDING TRENDS IN FRANCE

CB Insights

FEBRUARY 2018

French startups have the means to fund their ambitions. The amounts raised are increasing year by year, and France has become the second largest financial center in Europe for funding startups, enabling fledgling companies to develop internationally.

EY's annual survey of venture capital in France (*Baromètre du capital-risque en France*), together with 'Tech Funding Trends in France', published quarterly by CB Insights for La French Tech, paints a picture of startup funding trends in France.

KEY FINDINGS

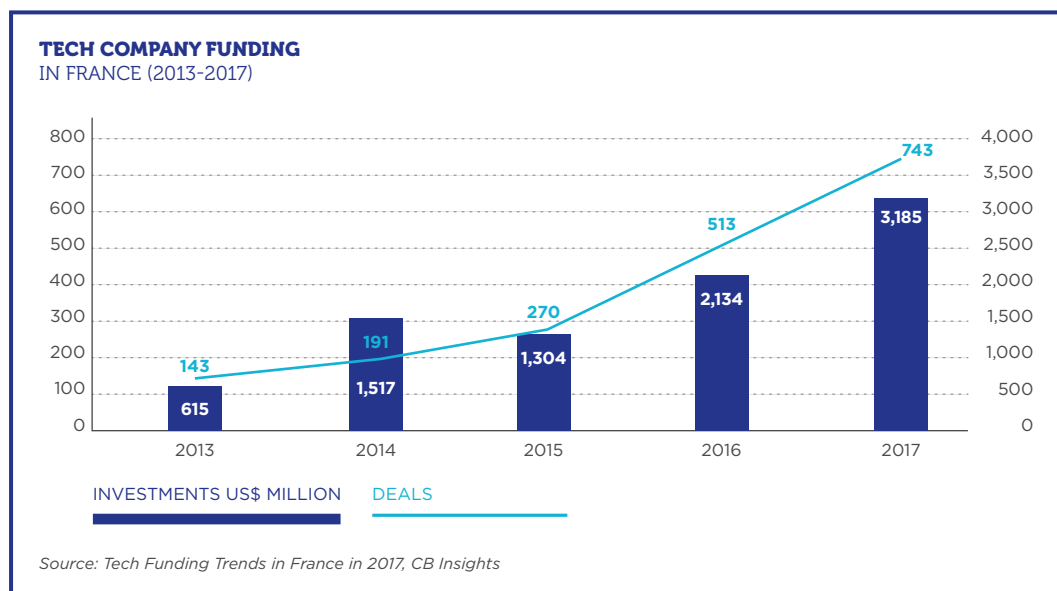
According to EY, French startups raised more than €2.5 billion in 2017, 400 million more than in 2016, for a total of 605 transactions over the year. This is an increase of 16.2% in amounts and 5.4% of transactions compared to 2016. Since 2014, fundraising has increased by 185% in France. The average amount raised per transaction is €4.2 million.

These excellent results put France in second place for fundraising, both in terms of the number of financing transactions and the amounts raised: France accounted for 18% of the amounts raised and 15% of the transactions recorded in Europe last year. In comparison, 40% of the amounts and 27% of the transactions were made in the United Kingdom, and 12% of the amounts and 11% of the transactions were made in Germany.

According to CB Insights, fundraising in France reached US\$3.2 billion in 2017, with 743 deals. This represents an increase of 49% in the amounts raised and 45% in the number of deals compared with 2016. France was ranked second in Europe after the United Kingdom for the number of funding deals, and third after the United Kingdom and Germany in terms of the amounts raised. Since 2013, US\$8.8 billion has been raised by French companies, representing 1,860 funding deals.

According to EY, the digital sector (online and mobile services, software and technology) was France's top recipient of venture capital funding, accounting for 63% of the amounts raised, followed by Life Sciences (15%) and fintech (11%). In the fintech sector, the amount raised rose by 185% compared with 2016.

A breakdown of CB Insights data shows that the top four sectors for which funds were raised in 2017 were internet (466 deals, US\$1.56 billion), mobile and telecoms (125 deals, US\$371 million), electronics (62 deals, US\$293 million), and other software (45 deals, US\$99 million).



Paris remains the leading market in France, with 46% of deals for CB Insights and 60% for EY. It is followed by Auvergne-Rhône-Alpes (8.8% of deals for EY, 3.4% for CB Insights), as well as the Provence-Alpes-Côte d'Azur and Nouvelle Aquitaine regions.

According to EY, three-quarters of funds raised were early-stage or first-round funding, with amounts on average below €3 million. The remainder of the deals, which corresponds to nearly 60% of the amounts raised, concerned investments in the second, third or higher rounds.

According to CB Insights, the most active investors in 2017 were Bpifrance (90 deals), Kima (28 deals), and Partech Ventures. The incubators and startup accelerators that were most present on the market were Paris & Co, the Bpifrance hub and Lafayette plug and play.

French startups are attracting more and more foreign investors: according to a study by Chausson Finance consultancy published by Les Echos, the number of fundraising exercises in France involving at least one foreign venture fund rose to 52 in 2017, compared with 32 in 2016, which is an increase of 62%. Of these investors, 34% were British, 32% American, and 13% German.

Foreign investors now take more risks in France: in 2017, 80% of deals were for amounts of less than €10 million, compared with only 60% in 2012-2013. Importantly, they are no longer afraid of going it alone on the market, with nearly 80% of deals taking place without use of an intermediary.

The leading trio in terms of foreign venture capital funds in France were Accel Partners (United States) and Index Ventures (United States), each with seven deals, and Piton Capital (United Kingdom). The top three sectors were transport, artificial intelligence and fintech.

2017 OPERATIONS

Excluding private equity deals and acquisitions of minority interests the largest deals of 2017 were as follows:

- ◆ **Actility**, a connected objects specialist, which raised €70 million in April.
- ◆ **Oodrive**, a French cloud services provider specializing in data protection, which raised €65 million in March.
- ◆ **Manomano**, a gardening platform, which raised €60 million.
- ◆ **Vestiaire Collective**, which specializes in the online sale of used luxury clothing, with €58 million in January.
- ◆ **Tinubu Square**, the credit risk management software publisher, which raised €53 million in October.

The biggest deals were:

- ◆ **Teads**, which was bought by Altice for US\$308 million in March.
- ◆ **Prodways**, which was listed on the stock market in May and was valued at US\$253 million.
- ◆ **Zenly**, which was bought by Snap for €311 million in June.
- ◆ **Balyo**, which was listed on the stock market in June and was valued at US\$122 million.
- ◆ **Mesdépanneurs.fr**, which was bought by ENGIE in November for US\$12 million.



Key figures

+ 44 %
INCREASE
IN AMOUNTS RAISED
 on crowdfunding platforms
 between 2016 and 2017
 (€234 → €336 million)

Source: KPMG

+ 50 %
INCREASE
IN AMOUNTS RAISED
 through crowdfunding in France
 in 2017 (€629 → €940 million)

(of which 36% was from crowdfunding,
 23% online business loan funds,
 25% online consumer loans
 and 16% online funding pots)

Source: KPMG

#1
IN EUROPE
 for fundraising
 in 2017,

with 679 transactions
 ahead of the UK, 629

Source: Dealroom

2nd
IN EUROPE
 for Deep Tech
 funding in 2017

US\$ 509 million, compared with
 US\$ 1,801 million in the UK
 and US\$ 400 million in Germany

Source: Dealroom

The top fundraisers in France in 2017

ACTIVITY (€70m): In April, this connected objects specialist founded in 2010 completed its fourth fundraising activity and brought in its capital investors including Creadev, Idinvest Partners and industrial Bosch, as well as the Ecotechnologies fund, managed by Bpifrance. The company is rapidly expanding, particularly in the deployment of long-range, low-speed networks. Outside of France, Actility is present in about ten countries.

OODRIVE (€65m): This French cloud services provider specializing in sensitive data protection raised €65 million in March from three French investment funds. The company, which has more than 350 employees in France, Spain, Belgium, Germany, Switzerland, China and Brazil, plans to use this money to buy back the equity stakes in two English investment funds, to grow organically, especially in Germany, and make other acquisitions.

MANOMANO (€60m): Created in 2013, the DIY and gardening platform that references more than one million products raised €60 million in September from General Atlantic, Piton Capital,

Partech Ventures and Bpifrance, after having already raised €13 million in 2016. The leader in the French market and present in five other countries in Europe, Manomano has 1.9 million customers and aims to double its growth in 2018 and recruit 200 people in Paris.

VESTIAIRE COLLECTIVE (€58m): in January, this specialist in the online sale of used luxury clothing and accessories, raised €58 million from French and British funds, in particular to create a new logistics center in France and to strengthen its presence in the United States, where it has been operating since 2015. For the British fund Vitruvian Partners, this was their first deal carried out in France. Since its creation at the end of 2009 in Paris, Vestiaire Collective has raised a total of €116 million euros. With more than 8 million members in more than 50 countries, Vestiaire Collective carries out nearly two thirds of its transactions abroad. Its 230 employees are divided between Paris, New York, London, Berlin and Milan, and in 2018 the company aims to become the world leader in the used fashion market.





TINUBU SQUARE (€53m): A software publisher specializing in commercial credit risk management, Tinubu Square raised €53 million in October from Bpifrance and Long Arc Capital. Founded in 2000, Tinubu Square has 120 employees, offices in Paris, London, New York, Montreal and Singapore, and 90% of its business abroad. The company plans to multiply its size by three and double its number of employees within five years. The funds raised are expected to be used to increase its investments in R&D to address new markets, particularly that of North America where they hope to open a lab dedicated to innovation.

BLADE (€51m): Founded in 2015, Blade sells Shadow, a cloud computer that can be used on any device with a Internet connection. In June 2017, they completed a third round of fundraising with Business Angels, with the two previous rounds in 2015 and 2016 bringing in €3 and €10 million respectively. Funds raised from this third round will go towards international expansion (an office was opened at the end of 2017 in Palo Alto, California, and the company wants to expand in Germany and the United Kingdom), reducing order deadlines and maintaining its technological progress. Blade's Paris office has 75 employees.



METHODOLOGY

The CB Insights reports were based on equity investments, debt refinancing, and funding raised by businesses domiciled in France.

The EY French Venture Capital Barometer covered equity financing deals for businesses in the startup phase or the first few years of existence, from January 1, 2017 to December 31, 2017. The study was based on data from Dow Jones VentureSource, CFNEWS, Capital Finance and CB Insights. The study only covered deals where the amount has been made public.

WORLD DIGITAL COMPETITIVENESS RANKING

*International Institute
for Management Development (IMD)*

MAY 2017

In 2017, alongside its traditional World Competitiveness Ranking and World Talent Report, IMD published new rankings that aim to measure countries' ability to adapt to and leverage the digital transformation and its impact on government practices, business models and society in general.

The World Digital Competitiveness Ranking analyzes data for 63 countries and focuses in particular on the importance of education and training in newly established innovative companies.

KEY FINDINGS

◆ Singapore topped the rankings, followed by Sweden, the United States, Finland

and Denmark. IMD highlights the strict rules governing entry of foreign talent into Singapore and Sweden and the history of government support for technological innovation in the United States.

◆ The United Kingdom was ranked 11th and Germany 17th.

◆ **France was ranked 25th in these rankings of digital competitiveness.** Among countries with a population of over 20 million, it was ranked 14th in Europe and ninth in the world.

“France and Europe have an excellent technical talent pool for A.I. and hardware. The most successful companies seem to be the ones who combine those strengths with other key ecosystems like Shenzhen for prototyping and manufacturing and the U.S. for funding and sales.”

Benjamin Joffe
Partner, SOSV / HAX

TOP 10
BY FACTOR

	TOTAL	KNOWLEDGE	TECHNOLOGY ENVIRONMENT	FUTURE READINESS
1	SINGAPORE	SINGAPORE	SINGAPORE	DENMARK
2	SWEDEN	SWEDEN	NORWAY	UNITED STATES
3	UNITED STATES	CANADA	HONG KONG	NETHERLANDS
4	FINLAND	SWITZERLAND	FINLAND	FINLAND
5	DENMARK	UNITED STATES	SWEDEN	SWEDEN
6	NETHERLANDS	HONG KONG	UNITED STATES	SINGAPORE
7	HONG KONG	ISRAEL	TAIWAN	UAE
8	SWITZERLAND	DENMARK	SWITZERLAND	CANADA
9	CANADA	FINLAND	NETHERLANDS	UNITED KINGDOM
10	NORWAY	UNITED KINGDOM	DENMARK	IRELAND

COUNTRY	2017 RANKING	KNOWLEDGE	TECHNOLOGY ENVIRONMENT	FUTURE READINESS
FRANCE	25	19	22	28
GERMANY	17	13	21	18
UNITED KINGDOM	11	10	16	9
UNITED STATES	3	5	6	2

FRANCE'S ADVANTAGES

◆ **France was ranked 19th on the knowledge factor** and 10th on the scientific concentration sub-factor, ahead of the United Kingdom and Germany, who were ranked 11th and 15th on this sub-factor respectively. More specifically, France was ranked third on scientific and technical employment and 14th on R&D expenditure and number of articles published. On the talent factor, France was ranked 15th for management of cities and 17th for net flow of foreign students. On the training/education sub-factor, France was ranked 16th for total public expenditure on education.

On the technology factor, France's regulatory framework was conducive to the development of digital technology (15th). As such, France was ranked 12th for protection of intellectual property rights, 17th for enforcing contracts and 19th for ease of starting a business. As regards its technological framework, France was ranked sixth on high-tech exports and 18th on communications technology.

On the future readiness factor, France scored well on e-participation (12th) and e-government (10th), as well as on innovative firms (10th).

POINTS TO WATCH

◆ Certain weaknesses were most clearly visible on the future readiness factor, particularly as regards business agility, where France was ranked 44th. French firms were not very agile (60th) and could have seized opportunities more effectively (59th) and made better use of big data (49th). Lastly, French people's attitudes to globalization left significant room for improvement (62nd).



Key figures

PARIS
EUROPE'S #2 TALENT POOL
for IT developers, with 181,659
professional developers
(up 35% on 2016)

Source: Stack Overflow for Atomico

3
FRENCH SCHOOLS
AMONG THE TOP 10
best institutions for
entrepreneurs in Europe
HEC (2nd), Insead (4th), ESCP (6th)

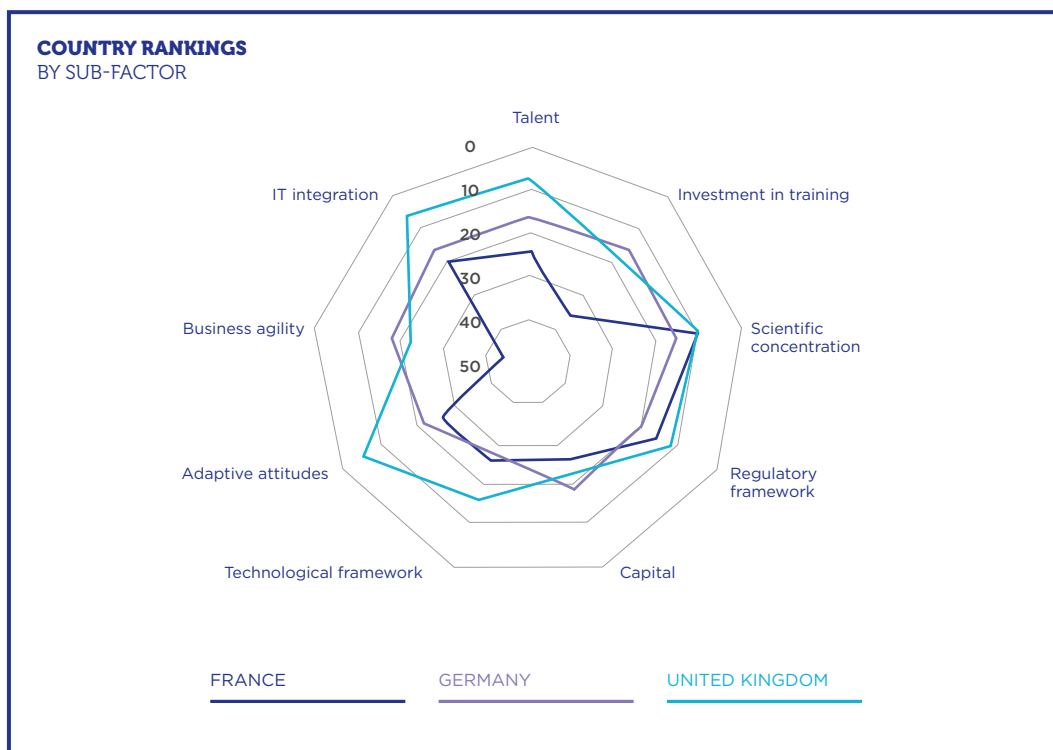
Source: Financial Times

PARIS
EUROPE'S 2ND DESTINATION
for international tech workers
in 2017, after London

Source: LinkedIn

PARIS
2ND IN EUROPE
for artificial
intelligence talent

Source: LinkedIn



METHODOLOGY

The Digital Competitiveness Ranking is based on 50 indicators, a third of which correspond to new variables. These indicators are grouped into nine sub-factors, which are in turn grouped into three factors:

- ◆ **The knowledge factor** measures a country's capacity to understand and learn new technologies (talent, investment in training and education, and scientific concentration).
- ◆ **The technology factor** measures a country's ability to develop digital innovations (regulatory framework, capital, and technological framework).
- ◆ **The future readiness factor** measures how well prepared a country is (adaptive attitudes, business agility and IT integration).

Six of the 50 indicators were derived from an opinion survey of over 6,000 international investors. The index was calculated retrospectively for the period 2013–2017.



– 2 –

Definitions

*and methodological
discussion*

DEFINITIONS & METHODOLOGICAL DISCUSSION

The reports reviewed in this publication throw some light on the ability of economies to create an environment conducive to the emergence and development of entrepreneurs and startups. The approaches they take are complementary and make it possible to track changes in ecosystems year after year. The methodologies and the indicators selected do, however, have a number of limitations.

THE STARTUP UNIVERSE: A MULTI-FACETED ECOSYSTEM

The startup universe encompasses a huge range of fledgling companies, some of them technology firms and others innovators. It also brings to mind the issues of risk-taking, new business creation and access to funding, thus intersecting with what is often referred to as the “entrepreneurial ecosystem”.

The definitions used in the reports vary from author to author, with the risk that identical terms may be used to refer to different realities.

◆ **The scope of startup financing differs between CB Insights and EY.** CB Insights takes into account equity investments in corporate capital, the creation of debt and other types of transactions (including recapitalizations) of companies headquartered in France. EY retains a more restrictive definition, not taking recapitalizations into account. Thus, the biggest fundraiser in 2017, which was completed by Data4 group to the tune of US\$130 million was taken into account by CB Insights, but not by EY.

◆ **The concept of startup or technological companies also differs according to the approaches chosen.**

— The European Innovation Scoreboard, like the index for the digital economy and society, uses indicators of SMEs from 10 to 249 employees to measure business innovation as well as their use of digital technologies. The scoreboard also uses the notion of knowledge-intensive activities and high-growth companies in the 50 most innovative industries.

— According to the Global Entrepreneurship Index, an entrepreneur is “a person who perceives a potential for innovation and has the skills to bring it to (the) market”, which excludes most small businesses. This ranking seeks to evaluate, not the quantity but rather the quality of business creations.

— Meanwhile, the Digital Competitiveness Yearbook looks at “innovative companies” as selected by UNESCO in its questionnaire on innovation statistics (companies with 50 to 250 employees that are introducing innovations).

◆ **Nor is there any consensus over the definition of the entrepreneurial environment.** For example, the Global Entrepreneurship Development Institute (GEDI) opts for a multidimensional definition of entrepreneurship, often reduced until now to measuring risk-taking and the number of new businesses created. The authors propose a holistic approach to the concept of the entrepreneur, and define the entrepreneurial ecosystem as the interaction between three components: the country’s entrepreneurial attitudes, the abilities and growth outlook of startups, and the aspirations of entrepreneurs – reflecting the quality of startups, measured inter alia by the degree of innovation and sophistication of products and processes.

◆ **Moreover, questions concerning startups, innovation, the integration of digital technologies and the digital economy often form part of the same debate.** But are ‘digitized’ economies really more conducive to the development of startups? The GEDI has sought to answer this question by calculating an index showing the correlation between the Global Entrepreneurship Index and the Tufts Fletcher School’s Digital Evolution Index. The authors identify a positive correlation between the two indexes, suggesting that those economies that have advanced furthest towards a digital economy also tend to have better developed entrepreneurial ecosystems. For this reason, and out of a desire to provide a comprehensive approach to the entrepreneurial environment in different economies, we have also incorporated analysis from the WEF’s Global Information Technology Report and IMD’s World Digital Competitiveness Ranking in our review of the field, alongside more specific rankings covering the world of startups and entrepreneurs.

COMPOSITE INDEXES SHOULD BE TREATED WITH CAUTION

THE WAY IN WHICH VARIABLES ARE AGGREGATED AND WEIGHTED OFTEN REMAINS ARBITRARY

Any analysis that restricts a country's entrepreneurial ecosystem to a single indicator, such as the number of 'unicorns', is rather over-simplistic. This is why most rankings are based on composite indexes calculated using a number of different indicators. In the case of the Global Entrepreneurship Index, some of the variables on which the index is based are composite indexes themselves.

In addition, certain pillars comprise sub-variables that, in some cases, have little in common and are difficult to interpret:

for example, the networking pillar comprises a survey (to ascertain the percentage of the population that know an entrepreneur personally), statistics (the urbanization rate) and the infrastructure pillar from the WEF's Global Competitiveness Report. Furthermore, the selection of variables and their associated weightings depends on the authors' point of view. In most cases, the overall index is calculated as the simple average of sub-indexes after normalizing all the indicators. But do factors such as fiscal policy, growth rates, and attitudes towards globalization affect the entrepreneurial ecosystem in the same way?

THE USE OF OPINION SURVEYS CAN UNDERMINE THE OBJECTIVE NATURE OF RANKINGS

To compensate for a lack of quantitative data on certain aspects of entrepreneurship, such as culture and opportunity perception, most rankings make use of perception surveys with business executives. The predominant influence of opinion surveys on building indexes means that their results should be treated with caution. Such methods undermine the results and are often prejudicial to France, which is perceived

as overly bureaucratic and reluctant to embrace globalization.

Often, France's poor rankings result from opinion survey data in stark contrast with economic realities, and it is easy to point to bias in the opinion surveys. As such, a number of perception indexes used in the Global Entrepreneurship Index to assess France's entrepreneurial culture result in particularly low values (opportunity perception, risk acceptance), in contrast with the results obtained in the European Digital City Index, in which Paris was one of the top 10 cities for willingness to take on risk and absence of negative perception of entrepreneurship.

GLOBAL RANKINGS REMAIN A PRODUCT OF THE INDICATORS AND SOURCES CHOSEN BY THEIR AUTHORS

An economy's performance in a ranking can be read in two complementary ways: looking at its rankings relative to other economies, and looking at its strengths and weaknesses against each indicator.

Disparities can sometimes be seen between France's ranking against an indicator and its relative performance, since France's rankings also depend on other countries' scores. The difference between France's performance and its rankings is explained by other countries' even better results in these areas and the very small gaps between them. Consequently, the rankings do not systematically reflect the effectiveness of France's networks.

Finally, the approach taken to rankings may vary greatly, depending on the indicators that are chosen. For example, while the European Commission's report on the digital economy and society highlights the low connectivity and low usage of internet services, Eurostat data shows that 99% of businesses have broadband access (96% is the EU average) and 51% of companies made an online purchase (45% is the EU average).



— 3 —

An ecosystem

*supporting innovation,
entrepreneurship
and startups*

AN ECOSYSTEM SUPPORTING INNOVATION, ENTREPRENEURSHIP AND STARTUPS

In recent years, the French government has been pursuing a major campaign to stimulate growth in startups and the digital sector in France, with the aim of making France an innovative, competitive and attractive business location.

GOVERNMENT MEASURES AND INITIATIVES

Numerous initiatives have been launched to consolidate and promote the French ecosystem, as well as to coordinate innovation efforts between government, the private sector, universities and business incubators. There are a growing number of reforms and initiatives in this area.

LA FRENCH TECH: BUILDING A STARTUP ECOSYSTEM

Since its creation in 2013, French Tech has taken shape nationally and has made its mark at international level.

After a first year setting up a nationwide network of startup ecosystems through nine accredited “French Tech cities” in November 2014, and four more in June 2015, as well as the introduction of nine themed networks in 2017, this major initiative has been expanding further, particularly internationally.

The three strands of the French Tech international strategy are:

- ◆ **Building French Tech Hubs** to group French entrepreneurs in foreign countries into ecosystems to accelerate the foreign development of French startups, and to promote France as an attractive business location for entrepreneurs and local investors. Following a first round of accreditation in 2015 that created a number of official French Tech Hubs, including New York, Israel, Tokyo, and San Francisco, a further 10 were accredited in 2016, bringing the total number to 22.¹
- ◆ **Launching a €12 million French Tech international promotion platform**, to support various initiatives, particularly by private-sector stakeholders, to highlight and showcase France’s innovation prowess.
- ◆ **Introducing French Tech Tickets**, a bespoke support package to attract overseas entrepreneurs to France by providing a welcome pack (residence permit, individual grant, accommodation, and customized advice) to help them set up and expand their business.

◆ **Launching the French Tech Visa**, an initiative to help fast-track the process for obtaining a French residence permit for international talent wishing to work or settle in France.

LE FRENCH TECH TICKET: LA FRANCE, TERRE D'ACCUEIL POUR LES TALENTS ÉTRANGERS

Paris remains a welcoming destination for international talent. Since 2015, French Tech has been striving to contribute to the international development of its ecosystem via - among others - the French Tech Ticket. This initiative aims to welcome entrepreneurs and foreign talent looking to set up startups in France, and offer them a tailor-made range of benefits to help get things off the ground. The first year of the program was 2016, in which there were 23 winning projects, with a total of 50 entrepreneurs, in the Ile de France / Paris region. Building on the initiative’s success, in 2017 it was extended nationwide, with 41 partner incubators in French Tech cities ready to welcome 70 international startups.

Key figures from the second year of the French Tech Ticket initiative:

- ◆ **Nearly 3000 applications from 115 countries.**
- ◆ **1,220 evaluated projects.**
- ◆ **70 winning projects, with 160 entrepreneurs from 43 different business sectors.**
- ◆ **By the end of the 2017 program, 20 winning teams had registered their startup in France, and another 35 were in the process of being created.**
 - A total of 20 winning teams had raised funds of up to €8.8 million by the end of 2017.
 - Some 34 other fundraisers were expected to be completed totaling €10 million.
 - Of all the winning projects, 26 had been assigned at least one person during the program.
 - 30 had signed significant partnerships with key accounts and 24 other partners were in the process of being signed.

¹ New York, Israel, Tokyo, San Francisco, Moscow, Abidjan, Cape Town, London, Barcelona, Hong Kong, Montreal, Seoul, Berlin, Dubai, Shanghai, São Paulo, Los Angeles, Milan, Beijing, Shenzhen, Taiwan and Vietnam. A further round of accreditation is expected to take place in 2018.

THE “NATIONAL INVESTMENT PROGRAM”: ENCOURAGING INNOVATION TO BOOST FRANCE’S COMPETITIVENESS

The “National Investment Program”, launched in 2010 under the name *Grand Emprunt* (National Loan Scheme) and managed by the General Investment Commission (*Commissariat général à l’investissement* – CGI), aims to boost France’s competitiveness by encouraging innovation. Initially, a budget of €47 billion was drawn up to **finance innovative and promising investment in France**, under the principle that each project would be co-financed. The budget for the National Investment Program was confirmed in two stages:

- ◆ **In 2010**, €35 billion was allocated to a first wave of investment in higher education and research, the manufacturing sector, SMEs, sustainable development, and digital technology.
- ◆ **In 2014**, an additional €12 billion in funding was added to the program to finance new world-class initiatives, new cutting-edge research and key technologies.
- ◆ **In September 2015**, the French government announced a third phase of the program for 2017, with a budget of €10 billion to finance a third series of innovative investments.
- ◆ **In September 2017**, the French government launched a major investment plan, with €57 billion to be spent on boosting the economy over the next five years. The initiative will work alongside the country’s structural reforms and will focus on key areas such as improving France’s carbon footprint, reducing long-term unemployment, driving up competitiveness through innovation and digitizing the public sector. The launch of this new investment plan resulted in the General Investment Commission becoming the General Investment Secretary.

FAST-TRACKING STEPS TO BUILD A DIGITAL SOCIETY

Launched by the French government in 2012, **the “Digital Transition” project helps microbusinesses and SMEs** boost their competitiveness by appropriating and integrating new digital technologies. Entrepreneurs can avail of support from several hundred public-sector digital advisers located all over the country, together with private-sector consultants. These advisers provide microbusinesses and SMEs with information, documentation and training in digital best practice.

To go even further, **a ‘Digital Republic’ Act of October 7, 2016**, created with input from internet users, seeks to fully seize upon the economic opportunities offered by the digital era. The Act addresses issues such as **data portability, the right to be forgotten, open data, confidentiality of private correspondence**, verification of online notifications and electronic sports.

Meanwhile, **local councils are also committed to digital integration**. For example, in an initiative seeking to drive the city of Paris forward together with its citizens, **‘Paris Open Innovation’** meetings have brought together innovators to discuss a variety of topics, including Open Data, smart and sustainable cities, the circular economy, revegetation, new local businesses, citizen participation, and digital services. ParisData, the **open data website run by Paris city council**, provides the public with free access to all data released by city departments, so that developers can analyze this information, improve certain services and propose new ones.

The French government has also been looking at infrastructure, launching a **Very High Speed Internet Plan** in 2013 with the aim of ensuring nationwide very high speed coverage by 2022, and in 50% of households as soon as 2017. The latter was achieved a year early in 2016. Local authorities and telecoms firms are set to invest €20 billion over 10 years, particularly in fiber-optic technology.

TAX ARRANGEMENTS GEARED TOWARD INNOVATIVE COMPANIES

France's research tax credit offers Europe's most beneficial tax treatment for R&D expenditure.

Created in 2004, the status of "innovative new company" (*jeune entreprise innovante* - JEI) supports the formation of innovative companies through a special status that grants them tax and social security relief (exemption from corporate and capital gains tax, total exemption from various employer social security contributions, etc.). The JEI status has been extended to "new university companies" (*jeune entreprise universitaire* - JEU) to encourage **new business creation by students** and people involved in research (research professors).

A LEGAL FRAMEWORK ENCOURAGING CROWDFUNDING PLATFORM

France was the first country in continental Europe to adopt a legal framework for crowdfunding, in 2014. At the end of the first half of 2016, there were over a hundred crowdfunding platforms operating in France. Under French law, project owners can now borrow up to €1 million through a crowdfunding platform (compared with €300,000 before the reform). There are two statuses: crowdfunding intermediary (*intermédiaire en financement participatif* - IFP) for lending-based platforms; and crowdfunding investment advisor (*conseiller en investissement participatif* - CIP) for equity-based platforms. Donation platforms are only subject to light-touch payment services regulations, and may declare their operations under the IFP status. In 2017, crowdfunding accounted for €336 billion, up 44% from 2016.

"Come back, Léon: we're innovating at home!"

Initiated by iconic startups and scale-ups from France's entrepreneurial ecosystem, BlaBlaCar, Captain Train, Chauffeur Privé, Dataiku, Drivy, iAdvize, La Fourchette, Showroomprive.com and Sigfox, Reviens Léon ("Come back, Léon") is a program to promote the French ecosystem internationally and attract talent to it, with the aim of valuing international experience and fostering skills circulation. The program, initially positioned as an initiative to recruit French expatriate talent, was opened up to international talent in 2017 and changed its name to "Wonder Léon". Its objective is to attract talented profiles to both French and European companies. International experience

is very valuable in helping such young companies grow and expand internationally.

The program focuses on two key initiatives:

- ◆ Centralizing "Léon" job offers on a single website.
- ◆ Helping people return to France by providing assistance with administrative and tax procedures, relocation arrangements, looking for homes and schools, etc. Once recruited by a startup included in the program, an expatriate can be put in touch with public- and private-sector experts in accordance with their needs.

PUBLIC STAKEHOLDERS

France has a number of public stakeholders supporting startup growth, including the Ministry for the Economy and the Ministry of Finance (Businesses Directorate, Treasury Directorate), the Ministry of Foreign Affairs (Directorate for Businesses and the International Economy), the National Investment Commission, the French Government Investment Fund (CDC), France's public investment bank (Bpifrance) and Business France.

Their roles are to:

- ◆ Coordinate their activities to boost startup growth as part of the 'La French Tech' initiative.
- ◆ Identify and nurture innovative startup projects.
- ◆ Help entrepreneurs develop their projects.

BPIFRANCE: FRANCE'S PUBLIC INVESTMENT BANK

France's public investment bank plays a key role in supporting innovative startups and is involved at every stage of their development.

The main sources of funding offered to fledgling companies by Bpifrance include:

- ◆ **i-LAB:** A national competition organized annually by the Ministry for Higher Education and Research in partnership with Bpifrance to help create innovative tech companies, with 60 to 150 winners a year.
- ◆ **The French Tech grant:** Aimed at entrepreneurs supported by accelerators and at fledgling companies in their first year across all business sectors. Capped at €30,000, the grants can cover up to 70% of eligible expenditure (costs of support, studies and training, project owners' expenses, personnel costs, etc.).
- ◆ **Seed capital loan:** Launched in 2005 and aimed at companies less than five years old, before they embark on a fundraising operation. Bpifrance provides subsidized loans requiring no security or guarantees, ranging from €50,000 to €100,000, or up

to €300,000 if regional authorities agree to stand as guarantor.

- ◆ **Seed capital investment loan:** Once investors have been found, Bpifrance proposes a second type of finance, again in the form of subsidized loans requiring no security or guarantees. Such loans range from €100,000 to €500,000 or, in exceptional circumstances, €1 million.

- ◆ **Innovation advance:** Innovation development assistance (*Aide pour le Développement de l'Innovation*) comes in later, helping companies with fewer than 2,000 employees develop and complete an innovative product or service prior to its industrial and commercial launch. Bpifrance provides an advance that is repayable if the innovation proves successful, or an interest-free loan. The assistance provided can cover 25 to 65% of eligible expenditure.

Bpifrance is also involved in growth acceleration programs and initiatives such as:

- ◆ **Bpifrance Le Hub**, which hosts startups from all over France at its 1,000 sq. m. Paris site. Firms supported by Bpifrance Le Hub are hosted at the site and receive customized support for six to 18 months (help establishing links with potential clients at major corporations and mid-size companies, support with financing strategy, ongoing relationship with an investor and a Bpifrance financier, individual advice on fundraising, access to a partner network, etc.).

- ◆ **Bpifrance Le Lab** is an ideas laboratory launched in March 2014 with the aim of building a bridge between the worlds of business and research. It helps improve Bpifrance's financing and support practices, stimulates business leaders' strategic thinking and boosts the growth of their companies.

- ◆ **Bpifrance Université** runs short, targeted, expert-designed online courses on a wide range of topics (strategy, finance, international, innovation, legal, etc.).

- ◆ **Bpifrance Excellence** is the network of high-growth businesses supported by Bpifrance. It aims to put firms in touch so that they can work together to boost their business.

BUSINESS FRANCE, THE NATIONAL AGENCY HELPING STARTUPS GO GLOBAL

Business France is the national agency supporting the international development of the French economy, responsible for fostering export growth and facilitating international investment in France.

As a founding member of 'La French Tech', Business France is also fully committed to developing startups internationally.

Business France offers an international support program specifically for French Tech startups. The aim of its three-phase program is to introduce fledgling businesses to markets in accordance with their level of maturity:

◆ **For early-stage startups seeking clients and publicity**, as well as partners and investors, Business France organizes French Tech's presence at the main international tech shows (CES, SXSW, IFA, Web Summit, Slush, etc.).

◆ **Business France has developed two-week immersion programs in the main business ecosystems abroad** (French Tech Tours of North America, China, Russia, India, South Korea/Japan). These programs are ideal for companies seeking to assess the suitability of potential markets for commercial development in the medium term.

◆ **For more mature startups**, in partnership with Bpifrance, Business France has developed Impact, an ambitious growth acceleration program to enable startups to become established in the tech world's two largest markets: the United States and China. Running over several weeks, and following a rigorous selection process, participating startups are immersed in the ecosystems of San Francisco and New York in the United States, and Beijing, Shanghai, Shenzhen and Hong Kong in China.

Every year, in partnership with Bpifrance, **Business France** takes French startups to Silicon Valley as part of the Impact growth acceleration program (formerly Ubi I/O). Under this program, French companies considering an imminent move into an American market receive 10 weeks of intensive business development, coaching and networking. The aim is to enable French

startups selected for their innovation potential to forge close and lasting links with global leaders in the latest ICT.

An equivalent program, Impact China, has been developed for the Chinese market. Impact China is an immersion program designed to acquaint French companies with the specific features of the Chinese market. While "La French Tech" companies targeting China need to establish whether the market is interested in what they have to offer, they also need to get a feel for the country they have heard so much about.

Impact China is therefore designed in two stages, introducing the selected companies to the Chinese market in a manner appropriate to their level of maturity.

◆ **10 days of immersion:** This first phase aims to expose participants to the Chinese high tech environment so that they can understand its specific features, rules and practices.

◆ **4 weeks of acceleration:** The second phase is intended to enable the most mature companies to deepen the ties they forged during the first phase and to develop partnerships.

Business France also offers the opportunity to take part in internationally renowned programs such as Medstartup, the fruit of a partnership between Business France and the Galien Foundation, which rewards innovative trans-Atlantic partnerships between startups in the pharmaceuticals, biotech, medtech and healthcare industries. In this context, Business France also works with the World Economic Forum (WEF) to support companies and startups attending this internationally renowned event, as well as associated regional events.

As part of its promotional responsibilities, Business France has also been mandated by the French government to support the "**French Tech International Attractiveness Platform**". The purpose of the platform is to enable promotional and influencing activities internationally to broaden the reach and increase the attractiveness of the French startup ecosystem.

THE FRENCH GOVERNMENT INVESTMENT FUND (CDC)

The French Government Investment Fund is an institutional investor acting in the public interest, supporting local authorities in equipping their communities with digital technology and helping to develop innovative digital services and applications.

The fund plans to support the *Arc de l'innovation* ("Arc of Innovation") project by creating over 150,000 sq. m. of tertiary

real estate (for incubators, co-working spaces, teleworking centers and business service centers) on the edges of Paris and in participating neighboring municipalities. Out of the €600 million of investment already identified for Paris alone, the French Government Investment Fund will be able to consider providing up to €300 million in savings fund loans, which can then be topped up through equity capital investments.

More and more fablab and incubators

Various types of business incubators have sprung up all over France supporting the development of startups, which can avail of guidance, tailored advice and assistance from a network of professionals.

DIGITAL FABLABS

The rise of the mobile office has brought with it a move towards shared applications, embodied by the phenomenon of fablabs, which help developers acquire skills so that they can quickly put ideas into action. LeFabClub, Usine IO, Numa and Le Petit FabLab de Paris all provide, among other things, workstations and self-service 3D printers. They also offer young entrepreneurs advice and expertise.

STATION F

This project, created in partnership with Paris City Council and co-financed by the French Government Investment Fund

(CDC) and Xavier Niel, is now home to a thousand innovative startups. Occupying more than 30,000 sq. m. in Paris's 13th *arrondissement*, STATION F opened in spring 2017 and is the world's largest startup campus. The startups based here are spread across 30 international accompaniment programs including incubators such as HEC, Edhec, Insead, IFM, Ponts et Chaussées, and accelerators including Private Sales, Facebook, Microsoft, Havas, TF1, LVMH, and Thales. Each one specializes in a particular area: BNP Paribas in fintech; Private Sales in fashion tech and retail; Facebook in data; Microsoft in AI; Havas in Adtech etc. STATION F is also home to 30 different investment funds, with examples including Ventech, Daphni, and Accel, and a foundation created by former French President François Hollande for social innovation.





FRENCH TECH CENTRAL: THE PERFECT PLACE TO MEET

The French Tech has a 300 sq. m. space on the ground floor of STATION F made up of 4 main areas:

- 1. A central place to meet and exchange information for all French startups,** whether they are housed within STATION F or not. These may include startups in the Ile de France / Paris region, and those based abroad that are in Paris temporarily.
- 2. An English speaking area welcoming foreign tech talent.** An "international showcase" for the French startups ecosystem, with key information for foreign talent on topics such as startups, entrepreneurs, investors, etc.
- 3. On-site setup of more than 30 public services,** with help and advice for startups.
- 4. A place where startups and scientific talent** from French universities and research laboratories can exchange ideas, thanks to a partnership with Inria, the public research institute in digital sciences.

LE CARGO

The Le Cargo building, which hosts innovative young companies on the edge of Paris, was Europe's leading startup incubator when it opened in November 2015. This 16,000 sq. m. building, built by Icade, represents a €66 million investment financed jointly by the French Government Investment

Fund (CDC), Paris City Council and the Ile de France Regional Council. Initiated by Paris City Council, the project forms part of the *Arc de l'innovation* ("arc of innovation"), a network of premises hosting innovative startups (designed for incubators, co-working spaces, remote working centers and business centers) on the edge of Paris and in its inner suburbs.

NUMA

Previously known as Silicon Sentier, Numa is a global innovation network that supports the development of startups, businesses and communities. With a presence in Paris, Moscow, Casablanca, Mexico, and more recently New York, it brings together a wide variety of mutually reinforcing activities: co-working, startup acceleration, community formation, digital transformation, and open innovation programs.

'42' CODING SCHOOL

Xavier Niel's coding school, '42', which offers free classes with no teachers, was exported to Silicon Valley in 2016 and has its own startup accelerator program, reserved for projects launched by the school's students. The school is home to 2,700 students who train each day to become the best developers of tomorrow, with the '42' site in Silicon Valley set to host up to 10,000 students by 2022. Partner structures in Ukraine, Romania and South Africa will offer the same teaching as that of the Paris-based school.

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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.

Business France has 1,500 personnel, both in France and in 64 countries throughout the world, who work with a network of public- and private-sector partners.

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