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ENTREPRENEURS IN HEALTHTECH

17<sup>TH</sup> EDITION

# PANORAMA FRANCE HEALTHTECH 2019







**Franck Mouthon,**  
Chairman of

**france  
biotech**  
biotech | medtech | digital health | IA  
ENTREPRENEURS IN HEALTHTECH

## HEALTHCARE, A VITAL AREA WHICH HAS WITNESSED MAJOR PROGRESS IN 2019

**T**he most precious asset for humans remains and will remain healthcare. Given this fact, our HealthTech companies are privileged to have the challenge of saving, extending and improving lives by alleviating the scourge of disease.

The change of decade we are experiencing today is a pivotal period for our sector. 2019 has seen the completion of major works by the HealthTech sector giving rise, among others, to the first registered gene therapies, the first CRISPR / Cas9 medical applications in hemoglobinopathies, the reconstruction of human organs by 3D cell printing, the first drug developed using Artificial Intelligence to treat inflammatory diseases and exoskeletons.

These various medical revolutions - to repair, treat, cure and even eradicate diseases that have long been incurable - will have profound impacts on our organisations, impacts for which we must prepare. The advent of new forms of medicine such as precision medicine as well as predictive and preventive care, access to medical innovations for all, the evolution of business models associated with patient recovery, the growing and early involvement of all stakeholders (patients, healthcare professionals, scientists, insurers, manufacturers, policy makers, as well as financial, regulatory and ethical authorities) will greatly contribute to the transformation of our entire ecosystem. As five centuries ago, The Vitruvian Man demonstrated the link between many universal sciences including anatomy, art, geometry, mathematics, cosmology, philosophy, etc. In order to integrate the challenges of these medical revolutions, the sense of history for the HealthTech industry will require more cooperation between the numerous players, closer links and synergies between the different disciplines, technologies and stakeholders.

Today, thanks to the data presented in this report, the Panorama France HealthTech 2019 – for which I would like to thank all the companies that agreed to participate and testify, Chloé Evans and Hugo Servanton of France Biotech for this remarkable work, as well as our partners EY, Euronext and QBE who contributed to the analysis and interpretation of the data – it is clear that our ecosystem which is at the service of patients, through its vitality, dynamism and diversity, continues to grow, continues to gain value and maturity while maintaining its agility. In the face of the exciting challenges of the healthcare sector, our entrepreneurs already have many assets and France Biotech must work collectively to prepare the ecosystem for these changes for the next decade. ■

**OUR HEALTHTECH  
COMPANIES ARE  
PRIVILEGED TO HAVE  
THE CHALLENGE OF  
SAVING, EXTENDING  
AND IMPROVING  
LIVES**

# A word from the Minister

## MAKING FRANCE A WORLD LEADER IN HEALTHTECH



GezelnGree

**Agnès  
Pannier-Runacher,**  
Secretary of State,  
for the French Minister  
of Economy and Finance

**F**rance is a land of health industries. With a sector that represents 90 billion euros in revenues, 35% of which comes from exports and nearly 455,000 jobs, our territories are dense in life sciences businesses of all sizes: more than 3,100, ranging from start-ups to multinationals. The healthcare sector is undergoing profound changes: a shift towards biotechnology, digital transformation, strengthening of certification requirements, etc. In this context, the Government is standing alongside developers for a two-fold objective: to strengthen both the competitiveness of our companies and the quality of patient care. This is translated by adapting our public policies to create a favorable environment and by supporting innovation through strong actions.

We have secured the research tax credit (CIR), which represents 800 million euros per year for health industries. Our priority is also to help HealthTech companies adapt to new regulations. It should be noted that the new European regulation regarding Medical Devices (MD), which will come into effect on May 26<sup>th</sup> 2020, strengthens surveillance and certification procedures. It enforces the requirement for manufacturers to carry out clinical trials to prove the safety of high-risk products, random inspections of manufacturers after product launch, provides unique identifiers for medical devices. We have also taken strong action to anticipate the regulatory and tax consequences of Brexit. We can also mention the implementation of measures announced by the President of the French Republic at the Strategic Council for Health Industries (CSIS), particularly, the measure included in the 2020 social security health budget which provides early access to Medtech companies, and the ambitious projects promoted by the Strategic Council for Health Industries, for instance regarding biomanufacturing.

HealthTech companies are among the most dynamic in the field of Artificial Intelligence, particularly for preventive medicine and medical diagnosis. Start-ups and SMEs, although very agile, also have fewer resources to face changes in their economic and regulatory environments. To face these challenges, the Ministry has proposed a strong industrial strategy based on innovation. This strategy is carried out through several tools, for instance the Innovation Council with a budget of 250 million euros per year, dedicated to financing the key challenges of breakthrough innovation. Two of those key challenges related to AI have already been chosen, one of which concerns the health industries and in particular medical diagnostics.

This will benefit all ecosystem stakeholders. Let's build on this momentum so that together we can make France a world leader in digital healthcare. ■

**WE HAVE SECURED  
THE RESEARCH TAX  
CREDIT (CIR), WHICH  
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800 MILLION EUROS  
PER YEAR FOR  
HEALTH INDUSTRIES**

# Key facts & Figures

## 1. HealthTech: an answer to major medical and social challenges of the 21<sup>st</sup> century

### Healthcare: one of the main concerns of the French population

**80%** of French people  
are attentive to their health.  
(source: Odoxa, 2019)

In France, **4 people out of 10**  
suffer or have a relative who suffers from one or  
multiple long-term health conditions.  
(source: Ipsos, 2018)

### 4 future trends

Population ageing.

Increase of chronic  
diseases.

Rise of health  
expenditures.

Integration of patient-  
centered digital tools (from  
prevention to follow-up).

### Unmet medical needs which remain considerable

Cancers cause  
**1 in 6 deaths**  
worldwide.  
→ Will represent 233 million  
new cases by 2030.

**7,000** orphan diseases affect  
300 million patients globally.  
→ 95 % have no cure.

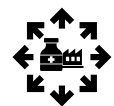
**175,000** patients  
are currently on waiting lists  
for organ transplantation  
in the US and the EU.



Biotechnology and HealthTech answer these challenges by developing  
more targeted, personalized and effective solutions.

Shift from a palliative to a curative model  
(gene therapies, hepatitis C, etc.).

## 2. A dynamic industrial fabric



### More than 1,700 HealthTech companies in France including:

**720** biotech.

**> 800** medtech.

**200** e-health companies.

### A strong dynamism for business creation

**60** new biotech companies  
created every year. (source: Féfis)

# Key facts & Figures

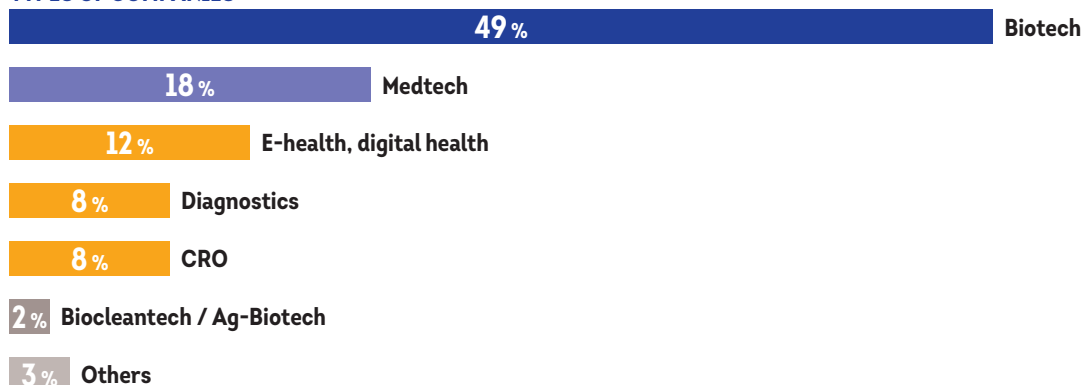
## Companies profile

**401**  
companies studied.

Young companies  
**8 years old on average**  
and most have less than **10 employees**  
(59% of companies).

**10,000** employees.  
**24** employees on average  
per company.

### TYPES OF COMPANIES



Source: France Biotech, **387 companies**, October 2019.

## A multitude of products

**> 5,000**  
patents.

**> 400** products,  
1/3 in clinical phases.

**2.7** product  
per biotech.

**> 1,000** products  
across all biotech  
in France.

**12%** of products benefit  
from **orphan drug status**.

**252** medical devices,  
half of which are registered  
or marketed.

**FRENCH BIOTECH:**  
**A richer pipeline** than the 5 major  
French pharmaceutical companies.

**ONCOLOGY: 1<sup>st</sup> area investigated**  
by French biotech.

# Key facts & Figures

## 3. Determined, tenacious entrepreneurs with international ambitions



### Entrepreneur profiles

**59%** are **first-time CEOs**.

**81%** of the founders are **scientists or physicians**.

Average age:  
**50 years old**

**19%** of CEOs are **women**.

**More than half** of subsidiaries are located outside of France.

**1/3** collaborations with companies or research institutes **located abroad**.

## 4. A favorable ecosystem, particularly for startup creation and seed funding



### Public research, recognised for its excellence and at the origin of numerous technologies developed

**52%** of HealthTech companies were created from **academic or public research**.

**Half of** HealthTech's partnerships are conducted with **public organisations** (universities, research institutes).

### Effective support organisations

**1/3** of companies are currently located and supported by incubators and accelerators.

**6 competitiveness clusters** dedicated to life sciences and health.

A strong support from **Bpifrance (PUBLIC INVESTMENT BANK)** towards HealthTech and life sciences



**€284** million dedicated to HealthTech in 2018, including:  
→ **€158** million in grants,  
→ **€126** million in equity investments.

## 5. A market access with its specificities and which remains complex

### A long time to market

The development of a **drug or biologic** takes between **10 to 15 years** from research to market.

For medical devices (MD), this development time is shorter (between 3 to 5 years) but **reimbursement remains complex and restrictive in France**.  
→ 41% of companies have given up launching a Medical Device in France. (source: Snitem 2020)

# Key facts & Figures



In order to facilitate market access for innovative HealthTech technologies, an early access scheme for innovative medical devices has been adopted in the 2020 healthcare budget.

## Strong regulatory constraints

**CLINICAL TRIALS:**  
one of the key stages  
in the development  
of a drug or medical device.



**France: 1<sup>st</sup> position**  
in Europe, in terms  
of number of trials in progress.



**4<sup>th</sup> position**  
for Phase I trials.

## Substantial R&D investments specific to the life sciences companies

**R&D:**



**60%** of company spending,  
€7 million per company in 2018.

**44%** of the workforce  
(10% for clinical development).

## 6. Partnership deals and merger/acquisitions, indicators of the strong value creation of HealthTech

### Partnerships and Licensing

**> 3,800** partnerships  
and licensing deals  
in Europe since 2015.

Average values are increasing:  
**+ 29%**  
between 2018 and 2019.

### Mergers and Acquisitions

**> 900**  
M&A transactions  
in Europe since 2015.

Average amounts increasing:  
**\$2.5 billion** in 2019,  
5 times more than in 2015.



Risk taking and appeal for innovative HealthTech companies demonstrated by numerous industrial partnerships and the emergence of mega-deals.



# Key facts & Figures

## 7. Financing, the crux for HealthTech

### Substantial capital requirements:

**€1.5 billion**  
of capital required for the next  
24 months (€7.6 M per company)

**72%** of companies  
are searching for funds.

**1/3** time spent  
by CEOs dedicated  
to fund raising.

### CIR (Research Tax Credit) and JEI (Young Innovative Enterprise): Essential research tax incentives for HealthTech companies and startups

**88%** of HealthTech  
benefit from the CIR.



Half of them go through  
an external entity  
(consulting firm) for its  
implementation and monitoring.

Late reimbursement is becoming more frequent:  
**16% of companies were reimbursed in 2019**  
for the 2017 CIR  
(compared to only 6% a year ago).

**53%** of companies  
were eligible  
to the JEI status.



Strong positive impact of JEI  
for companies.

The age criterion (8 years)  
is considered too limiting.



#### INITIATIVES TO SUPPORT THE DEVELOPMENT OF HEALTHTECH

Commitment of €6 billion from French institutional investors  
to finance French technology companies over the next three years.

The HealthTech Innovation Days (HTID), an initiative of France Biotech  
to foster interactions between international investors  
and European HealthTech.

# Key facts & Figures

## FUNDRAISING



**€ 25.5 billion**  
raised in venture capital in  
Europe and the United States,  
of which nearly 70% raised by  
early-stage companies\*.

**482 IPOs**  
on the Nasdaq  
from 2009 to 2019, including  
8 European companies in 2019.

\*Seed funding, series A or series B.



**€ 9.1 billion**  
funds raised in 2019, including  
**€ 4.7 billion** in venture capital  
in the 6 most active European  
countries <sup>(1)</sup>.

**5 capital increases > €200 million**  
(CMR Surgical, BioNtech in VC,  
Medacta IPO, refinancing of  
Galapagos and CRISPR Th.).



United  
Kingdom



France



Belgium

**€ 2,077 M € 1,787 M € 1,731 M**

**+ 34 % increase of amounts  
raised in venture capital vs. 2018.**

(1) Belgium, France, Germany, Sweden,  
Switzerland, United Kingdom.



**€ 1.8 billion**  
raised in 2019 by French  
HealthTech:  
**60%** in venture capital;  
**29%** in refinancing  
(post-IPO);  
**11%** in IPOs.  
**+ 79%**  
of amounts raised in venture  
capital vs. 2018.

**2 IPOs in 2019**  
Genfit and Innate Pharma,  
listed on the US Nasdaq.

## THE ROLE OF EURONEXT

### HEALTHTECH: A KEY SECTOR OF EURONEXT

→ With **90 listed companies**  
(58 biotech and 32 medtech), for a  
**total market capitalization of nearly  
€24 billion**, HealthTech makes  
Euronext (Paris, Brussels,  
Amsterdam, Dublin, Lisbon) the  
leading stock market in Europe and  
the second largest in the world for  
life sciences. Of these 90 companies,  
69 are French companies.

### A DEMANDING MARKET ENVIRONMENT IN EUROPE THAT IS UNFAVORABLE TO STOCK MARKET TRANSACTIONS

→ In 2019, publicly traded HealthTech  
companies faced strong risk aversion

and «flight to quality», keeping many  
generalist investors out of the  
industry. In this context, the deal flow  
is still fueled on the markets by the  
refinancing of publicly traded  
HealthTechs. Investors who don't  
invest in IPOs are still selective  
during post-IPO refinancing rounds  
but position themselves on  
transactions offering liquidity, size  
and clinical «momentum» that meet  
their requirements

### €3.1 BILLION RAISED IN "SECONDARY" ROUNDS BY EURONEXT-LISTED HEALTHTECH

→ In 2019, Biotech/Medtech  
companies raised €3.1 Bn on  
Euronext markets, including nearly

€ 950 M raised by companies listed in  
Paris.

→ The last quarter of the year was  
particularly dynamic, accounting for  
32% of the total funds raised in  
secondary operations during the  
year.

### INVESTORS FROM ALL OVER THE WORLD

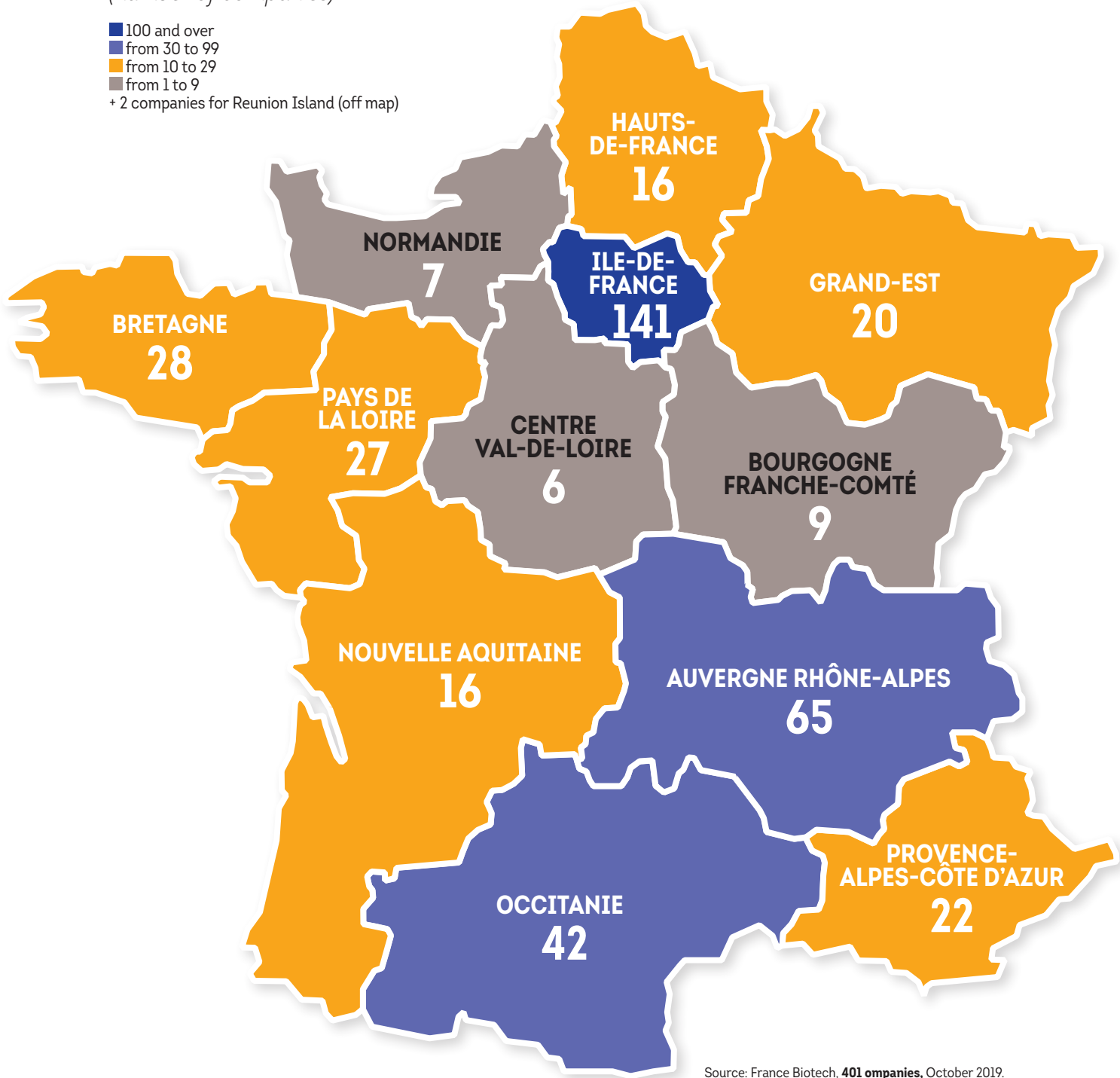
→ The listing on the various European  
stock exchanges of Euronext allows  
HealthTech companies to make  
themselves visible to a thousand  
institutional investors from around  
thirty countries.

→ The US alone accounts for 51% of  
investments in European life sciences  
companies.

# Key facts & Figures

Map of sample regions  
(number of companies)

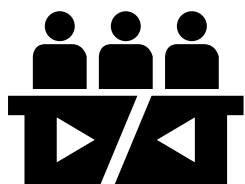
- 100 and over
  - from 30 to 99
  - from 10 to 29
  - from 1 to 9
- + 2 companies for Reunion Island (off map)



Source: France Biotech, **401 companies**, October 2019.

With 141 HealthTech companies, including 17 listed companies, the Ile-de-France region is the densest French region, accounting for 35% of the companies in the panel. The Auvergne Rhône-Alpes, Occitanie and PACA regions are also strongly represented and together account for a

third of the companies in the sample, including 15 publicly listed companies. Finally, with 14% of the companies in 2019, the "Grand Ouest" region, which includes Brittany and Pays de la Loire, is also one of the most dynamic regions for HealthTech.



# STEERING COMMITTEE



**Franck Mouthon**

France Biotech  
Chairman



**Olivier Chabanon**

France Biotech  
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**Chloé Evans**

France Biotech  
Market Research Manager  
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EY



**Nicolas Meunier**

Head of Advisory & IR Solutions  
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**Stéphanie Taschek**

Life Sciences Underwriter  
QBE France

The authors also thank **Hugo Servanton**, intern at France Biotech for his important contribution to the report.

## FRANCE BIOTECH IN ACTION

France Biotech is actively working with Public Authorities to promote the development of the innovative Life Sciences sector with policy proposals, on taxation and financing of startups, partnerships between academic research and companies, or the relaxation of regulatory frameworks that often weigh on innovative health and biotechnology companies.

The strength of France Biotech's proposals is based on the work of **9 committees and 2 working groups** that function as a think tank for innovative ideas.

- Corporate Finance Committee
- Medtech & Diagnostic Committee
- Advanced Therapeutic Medicinal Products Committee (ATMP)
- AI/Big Data Committee
- Business Development Committee
- Antibiotic Resistance/Microbiota Committee
- Legal Committee
- Human Resources Committee
- HealthTech Innovation Days Committee
- Technology Transfer Working Group
- Clinical Trials Working Group

France Biotech is both a national **observatory of the Life Sciences sector** in France and a **platform for exchanging** good practices for the ecosystem.

- Publication of studies and white papers
- Organisation of monthly workshops
- Contribution to numerous French and international events related to innovation or health
- Participation in study trips abroad (USA, China)

France Biotech contributes to **higher visibility of innovative companies** in Life Sciences through membership and participation in several private and public organisations, including:

- The European associations EuropaBio and Eucope
- The International Council of Biotechnology Associations (ICBA)
- The "Comité Stratégique des Industries de Santé" (CSIS)
- The "Comité Stratégique de Filière" (CSF)
- The "Association pour la Recherche et l'Innovation des Industries de Santé" (ARIIS)
- The Health-Tech network (with all the French health clusters and competitiveness clusters)
- Biofit and Medfit organising Committee
- The French Tech Initiative

## PANORAMA FRANCE HEALTHTECH

Since 2002, France Biotech has been conducting the "Panorama France HealthTech" (formerly "Panorama of the French Life Sciences Industry®"), the only study in France that analyses the evolution of the innovative Life Sciences field. The results of this study allow France Biotech to analyze the situation of SME companies as well as industry trends in order to support our policy proposals for making this cutting-edge industry one of the leading sectors.



# PARTNERS



**F**rance Biotech, founded in 1997, is an independent association that brings together the country's leading innovative health companies and their expert partners. As a leader in health innovation and a privileged intermediary with public authorities in France and Europe, France Biotech's mission is to support the development of this industry in France, by improving the tax, legal, regulatory and managerial environment in which these companies operate and by advocating for their recognition as a leading-edge industry.

France Biotech also aims to turn French innovative health technology companies into world leaders capable of designing and developing new innovations quickly and make them available and accessible to patients. France Biotech is chaired since September 2019 by Franck Mouthon, CEO of TheraNexus and has 275 members.

[www.france-biotech.fr](http://www.france-biotech.fr)



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**Q**BE is a world leader in insurance and reinsurance, recognized for its expertise and ability to offer innovative solutions. Established in France for more than 20 years, QBE covers the risks of companies of all sizes, particularly mid-cap companies and SMEs, across all sectors of activity. At the heart of risk management, QBE engages with companies to help identify their risk exposures in order to better control them. With a strong regional foothold, QBE is, above all, a local insurer.

In the life sciences field, QBE assists companies at all stages of their development: from R&D start-ups to the marketing of products, including clinical trials and international development. QBE offers a complete range of services including crisis management support and risk mapping.



**E**uronext is the leading pan-European exchange, covering Belgium, France, Ireland, The Netherlands, Norway, Portugal and the UK.

With close to 1,500 listed issuers worth €4.5 trillion in market capitalisation as of end december 2019, Euronext has an unmatched blue chip franchise that includes 26 issuers in the Morningstar® Eurozone 50 Index.

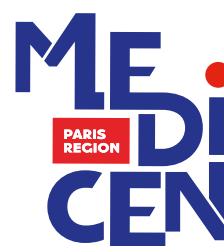
Euronext operates regulated and transparent equity and derivatives markets. Its total product offering includes Equities, FX, Exchange Traded Funds, Warrants & Certificates, Bonds, Derivatives, Commodities and Indices. Euronext also leverages its expertise in running markets by providing technology and managed services to third parties. In addition to its main regulated market, Euronext also operates Euronext Growth™ and Euronext Access™, simplifying access to listing for SMEs.





# CONTRIBUTORS

France Biotech would like to thank the following organisations that contributed to the Panorama France HealthTech 2019 report.





# HEALTH COMPETITIVENESS CLUSTERS

6 major clusters in HealthTech (biotechnologies, medical technologies and digital health) in France, each with its own specificities and regional foothold.



The background of the entire page is a dark blue gradient. Overlaid on this is a complex, abstract network of thin, light blue lines connecting various circular nodes. Some nodes are larger and more prominent, while others are smaller. The nodes and lines are scattered across the frame, creating a sense of interconnectedness and complexity. The overall aesthetic is high-tech and futuristic.

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