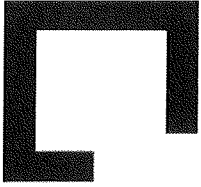


**FRENCH ATTRACTIVENESS AND COMPETITIVENESS:**

**LEEM SURVEY OF THE HEALTH INDUSTRY**

*Final report*

*September 2010*



## A. Objectives and outline of the survey approach

In the beginning of 2009, the President of the LEEM, Mr. Christian Lajoux, wanted to conduct a wide-reaching survey **of the way France is seen by decision centres of large industrial pharmaceutical companies** as an investment destination. This initiative was aimed at preparing for the CSIS coming up in October 2009, and today it is intended to provide **further proposals** for the directions that have been taken since then.

The **methodology** retained was based on qualitative interviews meant to record the perception of France's attractiveness from a panel of **important pharmaceutical players, world leaders** from countries with a strong track record in the pharmaceutical industry (France, United Kingdom, Germany, Switzerland, the United States, and Japan) and some **key national players in France**.

The 20 world leaders in the pharmaceutical industry were asked to participate in the survey, as well as the 5 biggest actors in France. As sanofi-aventis was part of both groups, 24 pharmaceutical companies were asked to participate in the survey and 19 accepted. Among the **73 people**<sup>1</sup> who were questioned in these groups, **55%** had a **worldwide perimeter of responsibility** and **18%** had a **European perimeter of responsibility**.

As public research was quickly pointed out as one of France's potential advantages, it seemed important to complete the survey afterwards with interviews with managers of **public research organizations** that are active in the field of health and life sciences and a selection of **key actors in the environment** (public financing organizations, other health industries, etc.)<sup>2</sup>

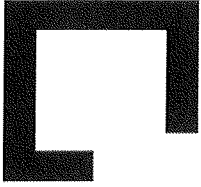
## B. Prominent points of the survey

1. A market that remains relatively attractive
2. A high-quality industrial tradition, burdened with a perception of the social environment that does not reflect reality
3. A high-performing research and development environment, with under-exploited potential
4. The positive perception of a political environment that is changing

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<sup>1</sup> See list in annex 1

<sup>2</sup> See list in annex 2



### 1. A market that remains relatively attractive

- France, in terms of size, is one of the two biggest European markets and the third world market after the United States and Japan (2008).
- On the other hand, like the other Western European countries, it is currently caught between the two great geo-economic forces with strong attractiveness:
  - The **United States of America**, largest market in the world, almost four times larger than the second, where the predictable drop in prices will be compensated by the inflow of more than 30 million additional patients;
  - The **emerging countries**, with expected growth that is much higher than the developed countries, whose mature markets are greatly constrained by the necessary limitations of healthcare costs;  
The attractive force these emerging countries exert on investment flows is even stronger when:
    - The expected growth is associated with large market size (China, India, Russia, Brazil, etc.);
    - These countries require local investments to access their markets.

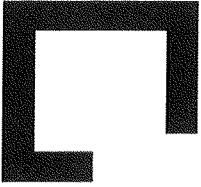
### 2. A high-quality industrial tradition, burdened by a perception of the social environment that does not reflect reality

The perception of the French industrial environment is very positive in many ways, which explains its position as the **number one producer and exporter of medicinal products in Europe**, and the third exporter in the world:

- The quality of the engineers and technicians;
- The existence of transportation and telecommunication infrastructure;
- A strong industrial tradition in the field of medicinal products, due to investment policies implemented at the end of the 20<sup>th</sup> century;
- The quality of the system for distributing medicinal products.

On the other hand, **the perception of the social environment is not good**. This is mainly due to three factors widely relayed in the media outside of France:

- The legislation concerning the 35-hour working week;
- The social climate, particularly strikes in public transportation and civil service;
- Occurrences of confinement of company directors as part of labour disputes.



This **perception** is **nuanced** by industrial actors who have more insider knowledge of France, and in their opinion **does not actually reflect the reality** of the situation:

- The good productivity of the work force makes it possible, according to some responders, to be more competitive than countries that have implemented extremely favourable fiscal policies (Ireland, for example, where high salaries absorb fiscal savings);
- The country is reforming in a social climate that remains, to date, rather peaceful: relaxing of the 35 hours and legislation on overtime, reform of special retirement regimes and health insurance plans, introduction of minimum service for civil service strikes, etc.;
- Other countries also have a complex and restrictive work environment and social relations that can sometimes be tense (Italy, Germany, and Holland).

The “equipment rate” in factories producing medicinal products is already high in France, while the traditional medicines industry is facing a global over-capacity situation due to the growth of generics. Considering the rarity of large industrial investment projects (capillarity of existing sites, ongoing rationalization of manufacturing base, related investment figures) and the attractiveness of emerging countries, large investments in this field are not to be expected in Western Europe.

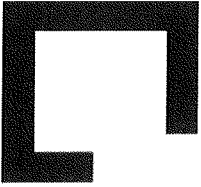
However, efforts to accompany and improve productivity are necessary to limit the risk of disinvestment and to defend the existing industrial base. According to the industrial actors, there is a certain French resistance to transformation which, though it can limit job losses in the short term, condemns attractiveness of industrial facilities in the medium term due to a lack of adaptation and competitiveness.

Finally, capturing investments in new production facilities for biomedicines (which will not be of the same extent as those provided for “traditional” drug factories, either in value or in terms of jobs) will depend more on the competitiveness and attractiveness of the upstream part of the chain, during the research phase. That is where important efforts must be made.

### **3. A high-performing research and development environment with under-exploited potential**

**France has important advantages** for being a high-performing actor in the global setting of research and development in the life sciences, particularly:

- The strength of Public Research in the biomedical field, with large internationally reputable organizations (INSERM, CNRS, Institut Pasteur, Institut Curie, CEA, etc.), which are highly-ranked in the citation indexes;
- French excellence in fields like engineering, math, physics, etc. as multi-disciplinarity is emerging as an important lever in the performance of research;
- The quality of the health system and the level of expertise of physicians in “field” medicine as well as clinical research;
- The reputation of being international opinion leaders in several therapeutic fields (cancer, AIDS, infectious diseases, CNS, etc.).



France, unlike other countries, is **unable to transform these advantages into true competitive advantages**. There are many and different kinds of reasons for this:

- In the past, there was no strong, focused and coordinated investment policy for research in life sciences:
  - In a similar vein to what France has been able to accomplish in fundamental and applied research in recognized fields of excellence today (atomic energy, aeronautics, etc.);
  - As the investment policy of the 80's and 90's in the drugs sector successfully promoted the industrial side.
- The dispersal of Public Research, which results in the existence of numerous actors (national research organizations, evaluation agencies, financing agencies, universities and university hospital centres, centres for excellence, etc.), and which led to the implementation in 2009 of the National Alliance for Life Sciences and Health.

Industrial actors appreciate this initiative, as they understand it and consider it to be a step in the right direction, which should quickly result in visible measures, particularly the implementation of a “one-stop shop” entry point.

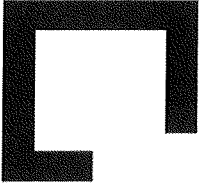
- The relative dispersion of public investment does not promote ease the emergence of large bioclusters with the critical mass necessary to demonstrate visible ambition internationally.

Even if the independence of universities and the emergence of competitiveness centres are appreciated in principle, their number and the way in which they are spread out does not promote an effective interface with industrial partners, particularly when R&D decision centres are located outside of France. In the same way, the number of cancer and genetics centres (“cancéropôles, genopôles”) is the reflection of a complex and fragmented structure.

On the other hand, the planned selection of five University Hospital Institutes should certainly make it possible to create a structural network that will be internationally visible and better adapted to the needs of industrial actors.

- The insufficient number of Public-Private partnerships shows greater difficulties in collaborating than in other countries, for many reasons:
  - Processes of project evaluation and valorisation need to be optimised:
    - . The need for selectivity, market expectations and the regulatory context are not sufficiently taken into account to ensure projects' competitiveness on an international level;
    - . **Complexity and slowness** of processes due to the number of people involved and a lack of convergence;
  - A French cultural environment that is changing, but that **still pits the public and private sectors against one another too much**: training and education, ways in which researchers are evaluated, strong risk aversion of not only researchers, but also industrial and financial actors.

There are many symptoms of this: insufficient **mobility** between the public and private sectors, insufficient **industrial orientation of projects**, lack of recognition of the **usefulness of applied and translational research**, low attractiveness of France for **international researchers** (except for the large centres of excellence), etc.



- **An image problem of French research** that should better reflect its value to industrials and internationally, but also nationwide: to the general public, social partners, the media and political decision-makers.

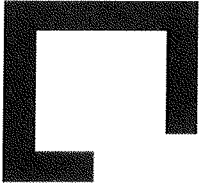
#### 4. **The positive perception of a political environment that is changing**

In sum, France is perceived to be one of the major industrial countries that offer a stable political environment, quality transportation and telecommunications infrastructure, recognized skills in technical, medical and scientific fields, and an attractive market in terms of size and market access.

It is located in the middle of the natural competitive environment that is Western Europe, caught between the substantial growth gap with emerging countries and the resistance potential of the United States of America (market size and linguistic, regulatory and health-system integration compared to the European mosaic; competitiveness of research, etc.)

However, **France distinguishes itself** from the rest of Europe by the **political willpower** it has demonstrated to consider **health industries** as a **strategic sector**, which is accompanied by numerous **real measures and initiatives** welcomed by industry, particularly:

- Re-launching of the CSIS (Strategic Council of Health Industries) with the involvement of the highest level of the State and of 3 ministries (Economy, Industry and Employment; Higher Education and Research; Health and Sport);
- “R&D Dating” meetings initiated in 2009 under the aegis of the President of the Republic of France;
- Organisation of the General State of Industry meetings, where health industries were one of five industrial branches to have a specific working group;
- Launching of the “Great Loan”, with a special consideration for Higher Education and Research;
- The implementation in 2009 of the “National Alliance for Life Sciences and Health” to coordinate Public Research activities in these fields;
- “Health, well-being, nutrition and biotechnologies”, number one priority axis of the National Strategy for Research and Innovation;
- The reform of the Research Tax Credit in 2008, widely appreciated by industrial actors, but not always understood, particularly in international decision-making centres.



This **political willpower needs to be leveraged**, particularly by capitalizing on and expressing the France's important advantages, especially in the field of Public Research.

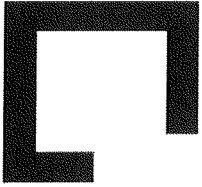
The efficacy of French Research in the health field can only be improved on three conditions:

1. Reduce the gap between reality and perception, particularly from the point of view of large international groups;
2. Initiate a communication strategy towards the main decision makers in the French environment in order to develop a convergence of interest, coherent policies and supportive approaches;
3. Pursue reforms of the Research organization and implement a pro-active and ambitious policy of promoting French excellence and developing public-private partnerships.

**C. A set of actual recommendations proposed by the LEEM based on the findings of the survey**

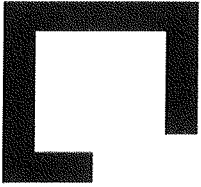
**1. To develop convergence of interests between the actors thanks to targeted communication initiatives**

- Towards large industrial groups, particularly the heads of French subsidiaries, who must be considered as veritable ambassadors of French competitiveness within their group;
- Towards actors in public and private research, to increase reciprocal knowledge of the environments and constraints, and eventually to develop and reinforce partnerships;
- Towards social partners, to help them understand the challenges related to the perception of the social environment in France and to contribute to reducing the gap between perception and reality;
- Towards political decision-makers and authorities at all levels, to remind them of the economic value created by the health industry and of the leverage that health represents for improving the well-being of the population and the competitiveness of French companies ("health, a factor for productivity").



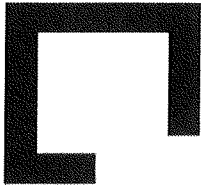
## 2. To realize the potential of French Research

- To support and prolong the action of the “National Alliance for Life Science and Health”, particularly by leveraging on communication about successful partnerships and success stories;
- To activate the “Alliance for Research and Innovation of Health Industries” (ARIIS), created as a reflection of the “National Alliance for Life Science and Health” with the purpose of:
  - a. **Bringing together** the important private research actors in life sciences – drugs, vaccines, medical devices (particularly diagnostics), imaging, animal health, etc. – and constituting a platform for exchanges, discussions and joint recommendations;
  - b. To stand up as a natural, legitimate, and direct **contact** (representative of private industry) of the National Alliance for Life Science and Health and to jointly propose **recommendations** to improve the overall efficacy of the Research organization and to supervise implementation; for example:
    - Identification of **priority Research fields**, in line with **public health priorities**;
    - Platform for actual recommendations to facilitate the **creation and financing of public-private partnerships** intended for **industrializable and economically viable research projects**;
      - . Measures meant to clarify the policy of **valorisation** and to adapt the **evaluation** process of projects: evaluation criteria used, level of selectivity, acceleration and non-redundancy of the evaluation by several organizations, etc.;
      - . Measures promoting **financing activities and modalities of fundamental and translational research**: evaluation and accompaniment of transfer projects, labels and/or financing decisions related to the valorisation and commitments of the inventors, particularly in terms of control and management of the companies created, etc.;
      - . Development of a culture for **creating scientific and medical value**, but also **industrial and economic value**;
      - . **International watch on practices** of project transfer and project acceleration;
    - Work on **mapping expertise** and fields of excellence;



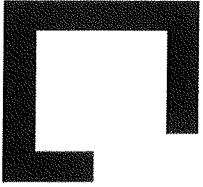
- Initiatives to improve **training, education and career management** of researchers and to optimize the Research paths and networks in France in the field of life sciences:
    - . Specific training for Research in the field of life sciences;
    - . Career management and mobility;
    - . Evaluation of researchers, which should increasingly take into account the filing of new patents, valorisation and industrial partnerships, and not just publications;
    - . Profit-sharing with researchers for transfers and valorisation;
    - . Establishment of links between disciplines working together for tomorrow's discoveries, etc.
  
  - Proposals to adapt legislation to maintain and improve the **competitiveness of the French regulatory environment** compared to other countries (animal experimentation, stem cells, protection of intellectual property, valorisation of innovation, etc.);
  
  - Measures to facilitate **clinical research** operations (contractualization, weight of clinical research in the physicians' evaluation, etc.);
  
  - Creation of a "**French Award for Research in Life Sciences**";
  
  - Implementation of an **international communication strategy**;
  
  - Federation of the **network of researchers of French origin living abroad** in order to consolidate links between French researchers and international actors.
- ... and thus to reinforce the two public and private pillars of Research and to constitute a strategic lever for French attractiveness in Research and Development in the field of life sciences and health.

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## Annex 1: Pharmaceutical Industry Heads and Managers Interviewed

Group	First name	Last name	Function
Abbott	Karine	Fanous	Clinical Operations, France
	Frédéric	Fleurette	Market Access Director Western Europe & Canada
	Gérard	Goldfarb	Medical Director, France
	Valéric	Hervé-Bannier	Market Access / Government Affairs France
	Laurent	Kirsch	President of Abbott France
Amgen	Louis-Charles	Viossat	Public Affairs, Europe
	Marc	de Garidel	Vice President, Southern Europe
AstraZeneca	Will	Dere	Senior VP, International Chief Medical Officer
	Bruno	Angelici	Executive Vice President, Europe, Japan, Asia-Pacific, Latin America
	Robert	Dahan	President, France
	Anders	Eklom	Executive VP, Development
	Anci	Kvarnström	Vice President Global Supply Chain
	Ian	Lundberg	Executive VP, Global Discovery Research
	Ulf	Sather	Regional VP, Europe
Baxter International	Karin	Wingstrand	Vice President Clinical Development
	Bernard	Landes	Finance Director, France
	Peter	Nicklin	CVP, President - Europe
Boehringer Ingelheim	Norbert	Riedel	Chief Scientific Officer
	Pascal	Bilbault	Clinical Research Director, France
	Muriel	Haïm	Director of Communication and Public Affairs, France
Bristol-Myers Squibb	Jean	Scheftsik de Szolnok	President, France
	Michael	Giordano	VP Development Teams- Global Development and Medical Affairs
	Eliott	Levy	VP Global Development Operations
	Marie-Pierre	Sbardella	VP Technical Operations Europe & MEAAP
Eli Lilly	David	Veitch	Sr. VP Europe Marketing & Brand Commercialization
	Martin	Bott	CFO, Global Manufacturing & Quality
	Timothy	Garnett	VP, Chief Medical Officer, Global Medical, Regulatory & Safety
GlaxoSmithKline	Jacques	Tapiero	President, Intercontinental Operations
	Jean-Noël	Bail	Director of Economic and Governmental Affairs GSK France
	Soizic	Courcier	Medical Director GSK France
	Hervé	Gisserot	President GSK France
	Jorge	Kirilovsky	Director of the "Les Ulis" GSK Research Centre
	Atul	Pande	Senior Vice President, Neurosciences Medicines Development Centre
	Marc	Santesmasés	Director of the "Evreux" GSK Production Site
	Patrick	Vallance	Senior Vice President Drug Discovery
Ipsen	Etienne	de Blois	President, France
	Eric	Drapé	Executive VP, Manufacturing & Supply Operations
	Christophe	Jean	Executive VP, Chief Operating Officer
	Stephane	Thiroloux	Executive VP, Corporate Development
	Didier	Véron	Public Affairs and Corporate Communication
Johnson & Johnson	Jane	Griffiths	International Vice President – Area North, Janssen Cilag EMEA
	Jaak	Peters	Company Group Chairman, Pharmaceuticals, EMEA
	Robert	Shoroff	President, Global Pharmaceuticals Supply Group, J&J
	Johan	Van Hoof	COO, Global Development Organization, Pharmaceuticals, J&J
Merck & Co	Joc	DeGeorge	VP of Preclinical Development and Toxicology
	Peter	Honig	Senior VP Merck Research Laboratories
	David	O'Connell	Directeur of the "La Vallée" Production Site
	George	Rizk	Commercial Operations, Europe
	Nigel	Thompson	Executive Director, Economic Strategy
Merck KgaA / Serono	Roberto	Gradnik	VP Commercial Operations Europe
	Christopher	Huels	VP Research & Development
Novartis	Eric	Cornut	Director of Commercial Operations, Europe
	Trevor	Mundel	Head of Development
	Rick	Priest	Head of Strategy & Operations
Pfizer	Leigh	Bonney	Head of R&D Strategic Management Group
	Olivier	Brandicourt	President, BU Primary Care
	Anthony J.	Maddaluna	VP Global Manufacturing Strategy and Supply
Pierre Fabre	Eric	Ducourneau	Secretary General
	Jean-Pierre	Garnier	Managing Director
Roche	Jean-Jacques	Garaud	Head of Roche Pharma Research & Early Development
	Hervé	Hénaff	Director of Public Affairs and Development, France
	Mondher	Majoubi	Global Head of Medical Affairs, Oncology
	Jacky	Vonderscher	Global Head of Molecular Medicine Labs
Sanofi-aventis	Philippe	Alaterre	Director of Strategic Studies - Industrial Affairs
	Marc	Cluzel	Senior Vice President, Scientific and Medical Operations
	Jean Pierre	Lehner	Senior Vice President, Chief Medical Officer
	Philippe	Luscan	Senior Vice President - Industrial Affairs
	Jean-Philippe	Santoni	Director of Industrial Development and Innovation
	Hanspeter	Spek	President, Global Operations
Servier	Marie-Noëlle	Banzet	Vice President — Director of Public Affairs
	Christian	Bazantay	Secretary General
Takeda	Erich	Brunn	CEO Takeda Pharmaceuticals Europe
	Michael	George	Managing Director TGRD (Takeda Global Research & Development) Europe



**Annex 2:**

**Heads of public research organizations,  
public financing organizations,  
other health industries,  
and key actors in the environment that were interviewed**

<b>Name</b>	<b>Organization / Institution</b>
David Appia	French Agency for International Investment
Gilles Bloch	CEA, Life Sciences Direction
Dominique Costantini	BioAlliance
Alice Dautry	Institut Pasteur
Virginie Fontaine Lenoir Annie Geay	OSEO
Thierry Herbreteau	St Jude Medical
Georges Hibon	bioMérieux
Dominique Maraninchi	INCa
Arnold Munnich	Presidency of the French Republic
Patrick Netter Marc Ledoux	CNRS
Alain Ripart	Groupe Sorin
Christian Seux	Snitem
André Syrota	National Alliance for Life Sciences and Health, INSERM
Elias Zerhouni	Former NIH Director

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