

The EU Digital Single Market and French health policy

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Summary:

Given the ageing of the population, the rising number of the chronically ill and “medical “deserts” in certain areas, a public health imperative in France is to change the provision of care. This is also an economic imperative in a country where spending on health is growing so fast. Driven by the digital revolution, the activities of the French health system are changing. Beyond the computerization of medical establishments or patients’ records, digital technology allows for developing new services all along the chain of value in the health business: the well-being, information, prevention, care and followup of patients. Developing an e-health industry should now be a priority for France. The country has everything needed to succeed. However several obstacles must be lifted in institutional and regulatory matters; and impediments, overcome to the appropriation of new techniques by both patients and health professionals. As is often the case with information technology, success hinges on the adoption of new uses by the largest number of people possible.

Among the thirteen countries retained for a quantitative and qualitative survey of 2600 health-care professionals and 25,000 patients, the *Future Health Index 2016* ranks France tenth with regard to the “perceived readiness [...] to realize the benefits of integration and connected care”.¹ Focused on digital technology in the health sector, this survey draws attention to the still low use of connected health devices in France. This ranking underscores a French paradox, also pointed out in a recent PIPAME study:² in spite of the lure of new markets worth billions of euros and the willingness expressed by many players in French health to move toward e-health, the actual use of connected devices is still half-hearted; and the prospects are uncertain. Both studies point out that France cannot yet claim a front place in developing connected care.³

Meanwhile, international competition in e-health has taken off. What is important, as in all segments of the digital economy, is to avoid a false start lest final users, patients or professionals, prefer foreign solutions deployed in early-starter markets outside the country. France risks passing into the era of e-health without having firms capable of holding their own, whence the danger of recurrent deficits in foreign trade.

¹ *Future Health Index 2016: The Capacity to Care — Measuring Perceptions of Accessibility and Integration of Healthcare Systems, and Adoption of Connected Healthcare*, a survey carried out by IPSOS and commissioned by Philips (Palo Alto, CA: Institute for the Future, June 2016), 76p. Countries analyzed: Australia, Brazil, China, France, Germany, Japan, Netherlands, Singapore, South Africa, Sweden, United Arab Emirates, United Kingdom and United States. Available at:

https://s3-eu-west-1.amazonaws.com/philips-future-health-index/report/2016/Future_Health_Index_Report_2016_FULL.pdf

² Pôle Interministériel de Prospective et d’Anticipation des Mutations Économiques (PIPAME), *E-Santé: Faire émerger l’offre française en répondant aux besoins présents et futurs des acteurs de santé*, study conducted for the Direction Générale des Entreprises (DGE), final report 2016, 120p. Available at:

<http://www.entreprises.gouv.fr/etudes-et-statistiques/e-sante-faire-emerger-offre-francaise>

³ This article has been translated from French by Noal Mellott (Omaha Beach, France). References have been updated in the translation.

In 2016, e-health still seems to hold the promise of a flourishing, dynamic, innovative market for improving the services provided to the population and to health-care professionals while creating new occupations and priming the economy's growth.

Potential but untapped benefits for the population

France, like other European countries, must cope with a demographic trend that will automatically lead to more cases of chronic illnesses. Along with this will come growing expenditures on health and a "medical desert" (*i.e.*, inadequate medical services) in some geographical areas. These prospects force us to think about how to organize the supply of health care.

The country's health system, which now revolves around hospitals and doctors' appointments, is going to have to shift toward procedures in which hospitals will, for sure, remain an important stage (often of intense, highly technical care), but a stage to be better coordinated with the care provided by professionals outside hospitals. For example, the chronically ill (with heart conditions, diabetes, etc.) will have a daily followup thanks to digital devices for sending data to their doctor over the Internet. Furthermore, care will be delivered at home, thus avoiding trips, which might be expensive for patients or even hard on them, and reducing the need for hospital installations. E-health will be a full-fledged part of this new system. Its proposal of digital applications in various fields is part of a trend that will gradually affect the whole chain of patient care.

E-health is also intended to optimize the chain of care by providing a "different" care and a "different" management of cases and by sharing information about pathologies and personal health data. The population's health will thus receive global care thanks to prevention work, predictive medicine and more attention to well-being. Care will be better and more efficacious. To this end, improvements will be made in the security of information concerning patients, the access to care, the followup till patients return home and thereafter: preventing at-home risks, providing information about patients' rights, orienting people toward the best solutions for their health, etc. The range of uses of e-health is vast; and the first beneficiary of knowing how to make the most of them is the patient.

Despite the consensus about e-health being a potential source of immediate improvements in the health-care system, for both the general population and medical professionals, its deployment is just starting in several countries. In France, deployment has been experimental. Traditional practices have not yet been deeply modified; nor have connected devices been adopted on a significant scale.

Consequently, the general public is still mostly unaware of e-health; and this holds for a fraction of health-care professionals too. Professionals have been trained in computer-related aspects of care, but too few of them have been trained to use the gamut of digital applications and devices. According to a survey conducted by Odoxa in January 2015, connected devices, though perceived as well adapted for several conditions (in particular for long-term or chronic illnesses), are prescribed to merely 5% of patients.⁴ Among the reasons for this are concerns about protecting the patient's privacy and about the reliability of the devices (since they represent a risk for both the patient and prescribing doctor if they fail to operate); or a simpler reason: unawareness of the possibilities offered by e-health.

⁴ *Baromètre santé 360 — La santé connectée*, a survey conducted by Odoxa for Orange and MNH (Mutuelle Nationale des Hospitaliers et des Personnels de la Santé et du Social), January 2015. Available via: <http://www.orange.com/fr/Press-Room/communiqués-2016/Quatrieme-barometre-sante-360-Odoxa-pour-Orange-Healthcare-et-MNH-les-nouvelles-technologies-plebiscitees-pour-le-maintien-a-domicile>

A primer for the French economy's growth

A dynamic sector

Despite the few advances actually made, the sector of e-health in France was estimated at €2.7 billion in 2014:⁵ health information systems (nearly €2.3 billion), telehealth (€340 million) and telemedicine. The potential telemedicine market of €140 million depends, however, on changes to be made in the legal regulations about reimbursing medical treatments. This sector could account for from 28 to 38 thousand jobs, of which 15 thousand might be in telemedicine (10 thousand of the latter in remote monitoring).⁶ To this could be added the “silver economy”, more than €20 billion in public expenditures in 2014.⁷ However the share of digital technology in the silver economy is still low.

E-health firms are dynamic. In this market, 45% of all firms are medium-sized; and they account for 70% of total sales. Given that start-ups abound in various segments of the e-health market and excel in making innovations, small and medium-sized firms dominate this market. The most frequent types of e-health firms are:

- start-ups, mainly in telemedicine, that supply, for example, 40% of the certified measuring equipment on the market, thus making France a leader in this segment.
- innovative firms with activities that, though not specialized in e-health, apply digital technology and facilitate the use of connected devices. An example is Withings, whose success was crowned in 2016, when Nokia bought it for €170 million.
- several (200) small computer companies (with an average of fifteen employees) that sell, develop and provide after-sales services usually of a single software program. Only a quarter of these firms handle several programs and have more than 57 employees.
- in the Île-de-France Region (the greater Paris area), the 370 small and medium-sized firms that are making innovations in the health sector: home-care equipment for the elderly, mobile health (m-health) applications and “serious games” software.

Initiatives have also been launched so that persons in other countries (Africans in particular) may benefit from the skills of the French medical corps via the installation of booths equipped with devices for self-diagnosis and video consultation for a remote dialog between doctor and patient. Besides costing less than hospitalization, these arrangements would offset the cruel want of an adapted hospital infrastructure in certain countries.

In international comparisons however, exports are not yet a strong point for France. It is worthwhile boosting exportation.

Support from public authorities must be adapted

Public authorities intervene in this web of firms, in particular during the phases of priming the pump, funding and R&D. They also intervene through localized experiments (such as the project, *Territoires de soins numériques*). Supplementary health insurance funds (such as MGEN, AXA or Mutualité Française) have also adopted far-reaching programs on preventive medicine and the followup of their beneficiaries.

The French regulatory framework was among the first (in 2010) to have defined five services of telemedicine: teleconsultation with doctors, tele-expertise, tele-assistance, telesurveillance (telemonitoring) and teleregulation.⁸ Implementation of the decree on telemedicine

⁵ J.C. Briant & L. Faibis, *Les Marchés de l'e-santé à l'horizon 2020*, Xerfi-Precepta, 23 October 2014, 545p.

⁶ “Étude sur les technologies de l'informatisation au service des nouvelles organisations de soins”, 2011.

⁷ Source: French Ministry of Social Affairs and Health, 2014.

⁸ Decree n°2010-1229 of 19 October 2010 on telemedicine. Available at:

<https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000022932449&categorieLien=id>

has provided for specific funding in line with a national plan for deploying telemedicine. Nonetheless, initiatives in this field have slowed down, and none has been adopted on a wide scale.

Under the 2014 act funding Social Security and health insurance, experiments have been conducted in nine regions in France with the aim to determine how to set prices for telemedicine services. Previous experiments had been limited to a few conditions (*e.g.*, the followup for chronic wounds; or psychiatry in prisons). The scope of experimentation has now been widened to cover long-term pathologies; and experiments will be carried out on telemonitoring. Eventually, *Étapes*, this program's new name, should reach more than 2.5 million patients.

These many experiments have brought to light the difficulty of proposing a coverage for services of telemedicine that meets two conditions, namely: obtaining the support of health professionals and achieving the goal of savings (through reduced health expenditures) set by Social Security. The method of remunerating health professionals, currently based on the "medical act" (fees for services), has not proven adapted to telemonitoring. These experiments make us realize how much energy has to be tapped to change a business model that nearly exclusively depends on reimbursements from health insurance. This model requires firms to become involved in a very long procedure for demonstrating not only their proposals' clinical efficacy but also their medical and economic benefits for the Health Insurance Fund (Caisse Nationale d'Assurance-Maladie, CNAM).

The change of scale: A challenge for firms and public authorities

Despite its successful startups, French firms have a handicap on international markets owing to their size and visibility. They can make up for it by profiting from all the arrangements recently set up to accelerate their growth or by working together, even merging, so as to reach more quickly a critical size. Foreign groups dominate the market, with in the front ranks, Korean (*e.g.*, LG, Samsung or Insung Information) and American (*e.g.*, Medtronic, Biotronik or Boston Scientific) companies. For want of a viable business model, some startups have a hard time reaching a significant level of sales.

Furthermore, so many organizations represent e-health in France that it is not easy to open a dialog with public authorities. The Alliance eHealth France (formed at the end of 2015) seeks to better represent the sector and improve coordination with public authorities. Public authorities can but benefit from this better coordination in the demand for care, R&D and the supply of health services. Startups, too, have created an association, France eHealth Tech, to have a single voice in dealing with authorities.

Nine levers of action for e-health

France still has a competitive position. The previously mentioned study of countries active in e-health shows that none can yet claim to have made a decisive advance. Some, such as the United States or United Kingdom, have conducted interesting experiments, which have demonstrated that e-health cannot be developed without using several levers of action together.

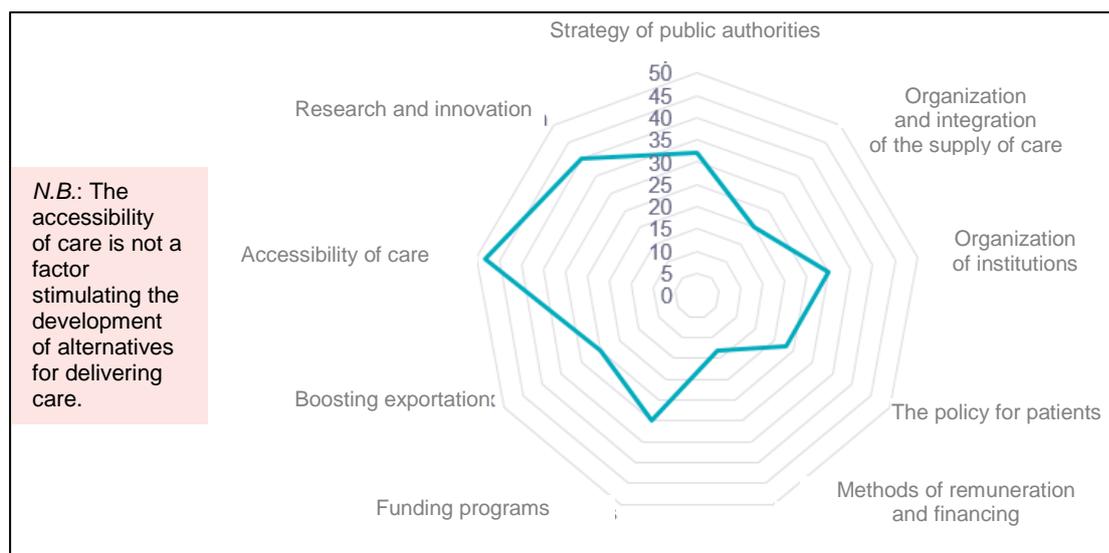


Figure 1: The strengths and weakness with regard to nine levers of action for e-health in France

Source: PIPAME, *E-Santé: Faire émerger l'offre française en répondant aux besoins présents et futurs des acteurs de santé*, final report 2016.

Figure 1 depicts France's strengths and weakness in the field of e-health in relation to nine levers of action (defined following a hundred interviews with persons in this sector). The following levers could be combined to design public actions in favor of e-health:

- the strategy of public authorities.
- the organization and integration of the supply of care.
- methods of remuneration.
- funding for programs.
- boosting exports (having an international view).

This list is, of course, not exhaustive. Not does it guarantee success in developing e-health in France. However it would provide firms with a clear policy orientation friendly to investments in e-health. Firms would have to incorporate digital solutions in the current supply of care. New methods for remunerating health professionals (instead of the current fees-for-services) would have to be designed; and support, given to actions in R&D with the goal of preserving a competitive edge in a highly competitive sector.

The priority: Increasingly use e-health and move beyond experimentation

For French firms to develop in this sector so that we benefit fully from their services, e-health must increasingly be put to use. France must not limit its actions to experimentation. Digital technology has proven benefits for patients, citizens and the health-care system; but these benefits depend on services and devices being systematically used. E-health should be promoted outside experiments (save for medical reasons related to specific cases).

The health-care system would be transformed if more uses (for collecting, processing and using data) were made of exchanges of information between the parties involved. We could thus benefit from all aspects of the new technology by optimizing management of the system, of medical

and administrative know-how and of patients' records and by improving care-giving and the procedures that patients have to follow.

Current experiments, necessarily restricted to a limited population and a specific segment of care, have shown the benefits of e-health. Nonetheless, these experiments are necessarily limited; and it will often be very hard to make an assessment of them that is not simply qualitative. Furthermore, they take place in the existing organizational model instead of replacing it. A priority is to extend or even generalize e-health innovations and projects.

Inevitable changes in health practices will entail an ever greater use of digital technology throughout the chain of care. Like digital technology in other branches of industry or commerce, e-health is going to become a normal and, soon, an ordinary means of optimization.

The real challenge is, therefore, to place French firms in a situation such that they are able to respond to a massive growth in the demand, whether domestic or foreign, for elaborate services based on proven technological, functional and organizational solutions. The players in health care who sign contracts for these solutions might, at that point in time, prefer methods benefitting from feedback on foreign markets.

It now seems more than ever necessary to make the digital shift. All parties in the chain of value would profit: manufacturers, health professionals, patients and, more broadly, citizens. Why can this shift not take place as quickly as in other fields affected by digital technology? The main reason has to do with the very nature of health-related issues. The solutions proposed must prove they are efficient and efficacious; and this takes time. It is thus all the more necessary to plan for making this shift. Otherwise, the international race will be lost in spite of France's undeniable assets, and France will be unable to be a frontrunner in the coming years.

In response to this strategic challenge to the health industry as a whole, the Ministry of Health has just published the first national e-health strategy.⁹ Based on the actions suggested in the PIPAME study, this strategy should enable all stakeholders in the field of health to make the shift toward using digital technology and devices...and thus develop a more participatory, more personalized, more predictive medicine.

⁹ Ministry of Social Affairs and Health, "Stratégie nationale e-santé 2020: Le numérique au service de la modernisation et de l'efficacité du système de santé", 4 July 2016, 17p. Available at: http://social-sante.gouv.fr/IMG/pdf/strategie_e-sante_2020.pdf