



GOUVERNEMENT

*Liberté
Égalité
Fraternité*

FOUILLE DE ROUTE DU NUMÉRIQUE EN SANTÉ

2023-2027



Supporting health
through digital technology

Supporting health **through digital technology**

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Editorials

Ageing of the population, chronic diseases, medical professionals under pressure, emergency departments sometimes overwhelmed, false information...these are just some of the major challenges currently facing our healthcare system. We have to confront these major challenges with a strong will and enthusiasm: we are going to overcome them! We are going to face them together, with pragmatism, ingenuity and innovation.



François BRAUN
Minister of Health
and Prevention

This embodies the spirit of the French National Council for Refoundation in Health (CNR Santé) and the projects it is undertaking. In these projects, digital technology is regularly mentioned as a key lever for transforming our healthcare system.

After 3 years of incredible acceleration in this field and the COVID-19 crisis in which digital played an integral role, we must continue to make use of all the current and future possibilities of digital technology, for the benefit of our collective health.

This new 2023–2027 roadmap focuses on prevention, for which Mon espace santé, our new electronic health record, will be a crucial asset.

It is also committed to freeing up time for healthcare professionals. I see digital technology as a partner that should both support the work of healthcare professionals and relieve them of repetitive and administrative tasks, so they have less to worry about and can focus on their core work with patients.

I wanted this roadmap to set a decisive course towards better access to healthcare for all. Developments in e-health, particularly telemedicine and telemonitoring, are major levers for equality in health, especially in more isolated areas. Distance is irrelevant with digital technology, and is therefore a real solution to meeting the needs of our fellow citizens, for example those who may have difficulty travelling that prevents them from accessing healthcare.

Lastly, this roadmap is being implemented in a supportive environment, with establishments significantly improving their defences and resources against cyber threats. It is being implemented by a government that is both an accelerator and a regulator, with strong ambitions to improve the appeal of our country, and to attract and retain all talents in the digital health sector.

This roadmap sets out a clear course. We are committed to achieving its objectives with collective dedication, in support of our values and our ethics, which form a European “third way” between the United States and China, capable of fostering the trust that is essential to the development of digital solutions and the improvement of our health.

Linked to an ageing population, our country is facing a demographic emergency that will change the nature of our society. By 2030, a third of the French population will be over 60 years old, and those over 65 will outnumber those under 15. We need to prepare for this demographic transition so that by 2030 we can achieve a significant transformation that guarantees high-quality support for our elderly, taking into account their various expectations. Health plays a key role in the challenge of maintaining independence. For an inclusive society and in view of our demographic transition, we need to review how care and treatment are structured.

These required transformations are impossible without large-scale digital solutions and an ecosystem of public and private stakeholders committed to inclusion, independence and ageing well. In recent years, the first digital investment plan for the medico-social sector, "ESMS Numérique", has been a formative programme in the transformation of the sector. Establishments and services for the elderly and people with disabilities have benefited from adopting digital user files or updating their hardware and software equipment. The engagement from stakeholders in the medical-social sector has been overwhelming.

These initial stages were conducted with stakeholders in the field, such as the ESMS information system groups and federations of establishments. This positive momentum will inspire us for the years ahead: it must continue and will be guided by this new digital health roadmap.

In particular, I would like to see progress on:

- data exchange between stakeholders in the health, social and medico-social sectors to facilitate healthcare provision and the coordination of programmes;
- carers and all the resources needed to give people more autonomy in managing their health;
- better monitoring of paediatric healthcare, which can contribute to early detection and better care for children with disabilities;
- further improvement of software solutions at the heart of ESMS professions for the benefit of people in care and professionals;
- expediting the deployment of digital solutions that demonstrate their impact in terms of preventing the loss of independence, in particular through one of the France 2030 major challenges.

These are the challenges at the centre of our priorities for the next 5 years so we can harness the power of digital technology for health, independence and inclusion.



Jean-Christophe COMBE
Minister of Solidarity,
Autonomy and People with
Disabilities

Supporting health through digital technology



Over the last four years (2019–2022), France has caught up with the times in e-health.

Long-standing challenges such as the national eHealth ID have finally been implemented. France's electronic health record, Mon espace santé, represents a fundamental pillar of our sovereignty and is now available to over 90% of the population. Thanks to the Ségur Numérique programme, patients and those in care routinely receive a copy of their health documents: 20 times more documents were sent to citizens in 2022 than in 2021. The introduction of telemonitoring into common law and the early access to reimbursement for digital devices are major steps forward, which are being scrutinised internationally.

Driven by the previous roadmap, there is now a strong common goal and ambition.

These collective efforts and the initial results achieved were published in the "FACT(S)" (English version available) report in August 2022.

The platform state approach has worked: the government plays the role of the regulator and the operator of repositories and core services, while private sector stakeholders deploy services that are useful for performing the everyday tasks of carers and patients and develop the innovations that our healthcare system needs.

After all this progress, **we need to consolidate our achievements** and ensure that digital solutions continue to develop in practice to meet the needs of citizens and healthcare professionals in the medico-social, social and health sectors. Now that core foundations are in place, we can rely more heavily on digital technology to tackle the major challenges facing our healthcare system. We need to **support health through digital technology**, by playing a humble role in meeting the priority issues of the French national health strategy and regional health plans, in particular prevention, improving the quality of care and access to healthcare.

To achieve this, this new roadmap is rooted in established fundamental values.

Ethics.

Digital health must be sufficiently inclusive and supportive. Everyone must be able to use digital tools and



Hela Ghariani and Raphaël Beaufret, jointly responsible for digital health

services to play an active role in their own health and future, access their data and manage access to it. Digital health must be based on supportive and ensure no one is left behind. Digital should not widen inequalities in healthcare, but rather improve access to care for all. Innovations should not be reserved for certain classes of the population, but should be accessible to those who need it most. Ethics are not a barrier to deployment of digital technology, but a guarantee of its quality and humanism in its solutions.

Sovereignty.

It is imperative that we make the technological choices that will let us dictate outcomes over the long term. By defining a regulatory framework, in France and in Europe, that is consistent with our values, we will be able to ensure our independence from special and foreign interests.

Sustainability.

In light of the immense climate and ecological challenges facing humanity, the environmental impact of digital services and devices must be assessed, both in terms of their production and maintenance costs and the practices they affect (e.g. teleconsultation, etc.).

France must also embody these values at European level. **In the future, Europe will be the relevant level for exchanges, regulation and the digital health market.** This is why France will continue to invest in European projects (French Presidency of the Council of the European Union in 2022, co-presidency of the e-Health Network in 2023, etc.) to make an impact and shape the future, particularly in terms of the sovereignty of data hosting and the future regulation on the European Health Data Space (EHDS).

In terms of the method, the approach that has led to success over the last four years has been continued:

- **Systematic co-construction** with citizens, professionals and establishments, digital health companies and their representatives, through a process of listening and regular discussions, with total transparency on difficulties and progress, as was done for the development of this roadmap.
- **Small, quick steps** to avoid attempts to perfect everything and demoralising tunnel vision, and to move forward with pragmatic solutions that are regularly adapted in line with feedback from those practising in the field.

As we did in 2022, we will evaluate the impact of our actions and this digital health roadmap before the end of 2027.

In terms of governance, **public policy on digital health is implemented under the guidance of the Ministerial Delegation for Digital Health (DNS)**, which is a permanent part of the Ministry of Health and Solidarity. It works closely with representatives of digital health stakeholders, in particular representatives of users, professionals and establishments working in the health, social and medico-social sectors, and representatives of digital health companies that supply them with software solutions and digital medical devices. The ministries have an active involvement (DGOS - DGS - DGCS in particular) with the partner organisations that play a key role in e-health (ANS, Assurance

Maladie, CNSA, HAS, GIE SESAM-Vitale, CNDA, AIS, ANAP, ATIH, PariSanté Campus, Santé publique France, etc.) and in practice with the network of Regional Health Agencies (ARS), each of which oversees its own Regional Support Groups for the Development of eHealth (GRADEs), and the health insurance network (DCGDR and CPAM), working closely with regional authorities (mayors, departmental councils, etc.). **This positive momentum is continuing and governance is being improving as part of the new roadmap.**

Digital technology has kickstarted sustainable transformation of the French healthcare system. If we fail to create suitable digital technology for our healthcare system, it could just as easily derail it and compound the challenges it faces today. This is our collective challenge for the next five years, as we continue our efforts. This is the challenge of this roadmap, which is not just the responsibility of the government, which cannot do it alone — it is also that of the regions, professionals and establishments, businesses and citizens.

This roadmap describes our priorities for the next five years. It is split into **4 focus areas, 18 priorities and 65 objectives** with milestones and a body identified as the project leader that is responsible for its successful implementation.



PREVENTION

5 priorities

20 objectives



TREATMENT

5 priorities

16 objectives



ACCESS TO HEALTHCARE

4 priorities

11 objectives



SUPPORTIVE FRAMEWORK

4 priorities

18 objectives

The digital health doctrine

As a result of the previous roadmap, France now has a digital health doctrine.

esante.gouv.fr/strategie-nationale/doctrine

It sets out the framework for digital urbanisation in health in France. The doctrine is updated annually. The digital health house model (on page 9) is a

simplified representation of this.

It explains, for all those who design, develop and maintain digital health services, the framework to comply with, in terms of core principles (interoperability, ethics, security), core ID services (INS, Pro Santé Connect, etc.) and core exchange services (MSS, etc.).

It also defines the role of the Mon espace santé and Services Package for Professionals platforms in the digital health services ecosystem.



Accès à la santé

Prévention

Prise en charge



mon ESPACE SANTÉ

santé.fr

Bouquet de services pour les professionnels

Référentiels par secteur

- Radiologie
- Laboratoire
- Ville
- Hôpital
- Médico-social
- Dispositifs médicaux
- E-parcours
- Télésanté

FRANCE NUMÉRIQUE

Stratégie d'Accélération Santé Numérique

FRANCE 2030

- Accès au marché
- Évaluation
- Recherche (Plateformes de données de santé)
- Formation

ParisSanté campus

Services socles d'identité



PRO SANTÉ CONNECT

FINESS
RoR
IRPPs

Règles socles

Éthique
CENS

Sécurité
PGSSI-S / RGPD

Interopérabilité
CI-SIS

Services socles d'échange

L'ORDONNANCE NUMÉRIQUE

DMP

SaS

MSanté



PREVENTION



Developing prevention and giving everyone an active role in their own health



Digital health care must **enable everyone to play an active role in their own health and life**. To achieve this, the first step is to **have control over their health data** and, in particular, to systematically retrieve their health and care pathway documents following a period of care.

The aim is to make **Mon espace santé the fully fledged electronic health record of the French people, from an early age** with all the necessary support, **particularly for those who are not as familiar with digital technology**.

Mon espace santé is designed to meet people's everyday needs: find out when a booster jab is due, securely send a prescription to your pharmacist, get the results of a lab test before a check-up, access your personalised support plan, etc. Mon espace santé will help everyone keep better track of their health **and benefit from personalised prevention**.

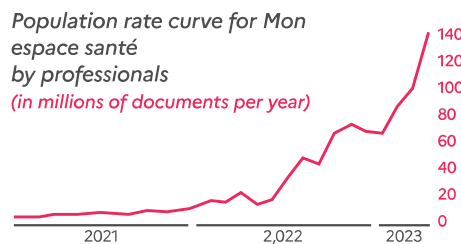
Mon espace santé has become an essential public tool and promising new innovations are constantly emerging in the field of digital health. It is essential **to support digital health companies to ensure that the French population has rapid access to solutions that have proven effective for their health**.



1. Using Mon espace santé in everyday life to manage your health



1-1. CONTINUATION Healthcare professionals can now assume that almost all their patients have an electronic health record. **Routinely sending prescriptions, lab results, imaging reports and patient follow-up letters** is finally possible. The Ségur du numérique removes most of the technical barriers to the smooth and secure sharing of healthcare data. The priority over the coming months will be to ensure that “it actually works in practice” and that users are able to retrieve their health documents from Mon espace santé.



1-2. DEVELOPMENT In further efforts to make the everyday lives of French people easier, the secure messaging system will offer an effective alternative to sending prescriptions to pharmacy Gmail addresses or any other non-secure messenger. Users will be able to send their prescriptions to their pharmacist via the Mon espace santé messenger while maintaining complete confidentiality. By using this feature, the patient can proactively write to a healthcare professional. In addition, a messaging API for citizens based on Mon espace santé will enable third-party services to offer a way for carers and patients to communicate while respecting medical confidentiality and guaranteeing the same level of security and confidentiality.

1-3. DEVELOPMENT From as early as the first days after birth, Mon espace santé will be populated with the child's “paper” health record (growth curves, health certificates, etc.). The arrangements for sending information for monitoring paediatric health from the health professionals’ software (general practitioners, paediatricians and, in time, school doctors and protection services for mothers and children) will be developed in conjunction with software publishers in the sector. Families will be able to access their children's full health history in one place, which will prove useful throughout their lives.



1-4. DEVELOPMENT Lastly, to simplify the experience of citizens, we will improve the links between the various public portals in the field of health. In particular, we will develop Mon espace santé as a personal digital health record, Santé.fr as a reliable information site on health and healthcare provision, the ameli.fr account for managing health insurance cover rights and the other compulsory health insurance portals.

→ Hit a population rate of 250 million healthcare documents per year in Mon espace santé by professionals by the end of 2023 and 400 million by the end of 2026
DNS - CNAM - ANS

→ Launch the first versions of the Mon espace santé messenger for sending prescriptions to pharmacists from May 2023 and design a messaging API for citizens in 2024
CNAM - DNS



→ Introduce reminders of compulsory check-ups and advice on children's health in Mon espace santé by the end of 2023 and health reports and certificates by 2025
CNAM - DNS

→ Develop the first pathways linking Mon espace santé, Santé.fr and the ameli account (key ages, women's health, etc.) from 2024
CNAM - DNS - DSS



2. Developing personalised prevention



2-1. DEVELOPMENT Firstly, Mon espace santé offers us a new source of information “in people's pockets”. We are already sharing primary prevention campaigns via this channel. However, we need to take things further and **personalise prevention messages (vaccinations, check-ups, etc.)** to encourage people to take appropriate action. This is a question of defining which message can be sent to the person according to which criteria (age, sex, reported condition, etc.), by which means (notification, messaging, etc.) and how frequently. To ensure that this is done effectively, pragmatically and ethically, a citizens' committee has submitted conclusions that will be used to supplement the introduction of **personalised prevention in Mon espace santé**.

2-2. DEVELOPMENT Furthermore, **Mon espace santé will let you prepare for and keep track of preventive appointments at key ages**. The preparation self-questionnaires can be added to the patient's medical record, which can be accessed by the healthcare professional at the appointment. Once the consultation has been performed, the professional can share their prevention recommendations with patients via the secure Mon espace santé messenger. In addition to these new medical appointments, Mon espace santé will also be used in organised screening programmes, in occupational therapy and in school healthcare, to better equip citizens to take preventive action.

2-3. DEVELOPMENT There is also a need to equip healthcare professionals to improve their prevention practices. Alongside the future economic models to be developed for prevention, similar to what has been done for telemonitoring, we will support **the integration of prevention, good practice and reporting solutions into their professional software**, possibly based on artificial intelligence, to help healthcare professionals target patients, raise awareness and support them using a population-based approach.

2-4. DEVELOPMENT Lastly, we know that **more and more environmental factors are going to have an impact on human health**. Digital technology should make it possible to anticipate risk and measure it more accurately. It should also better inform people about their exposure to risk and the preventive behaviour they should adopt. There are many avenues to explore in this area: to identify priorities and make progress in a pragmatic way, a working group will be set up as part of the Conseil du Numérique en Santé (CNS – Digital Health Council). This work will build on the groundwork of some stakeholders and will be based on the four priorities of the French national environmental health plan.

→ **Send out the first personalised prevention notifications in Mon espace santé in 2024**

CNAM - DNS



→ **Enable 1 million patients to draft a preventive assessment in Mon espace santé by 2027**

DNS - CNAM



→ **Promote the development of prevention and population management features in healthcare professionals' software by 2027**

DNS - ANS



→ **From 2024, launch a working group within the framework of the Digital Health Council to troubleshoot and define specific guidelines and measures**

DNS



3. Giving everyone an active role in their own health and control of their data



3-1. CONTINUATION Giving citizens control over their health data is a strong ethical pillar of all our actions. In the future, **users will also be able to retrieve their health data from digital services in Mon espace santé** from among those listed in the catalogue. This data exchange will be possible in both directions from 2023 (from the listed service to Mon espace santé and from Mon espace santé to the listed service). However, it will always be at the discretion of citizens, who will decide which application they want to share their data with depending on the purpose of the service.

→ List as approved more than 50 applications offering exchanges with Mon espace santé by the end of 2026

GIE SESAM-Vitale
ANS - CNAM - DNS

3-2. CONTINUATION In addition, users must be able, as specified by law, to decide to share temporary access at their discretion in the course of receiving care or support, with the professional of their choice. This option will be particularly useful for certain professionals (occupational therapists, secretaries, foreign doctors, etc.) who are not included in the permissions matrix, or for users who prefer to hide all documents by default. Giving this control option to citizens is essential in the relationship between the patient and the carer.

→ From 2024, define the different ways citizens can share access depending on the care situation
CNAM - DNS

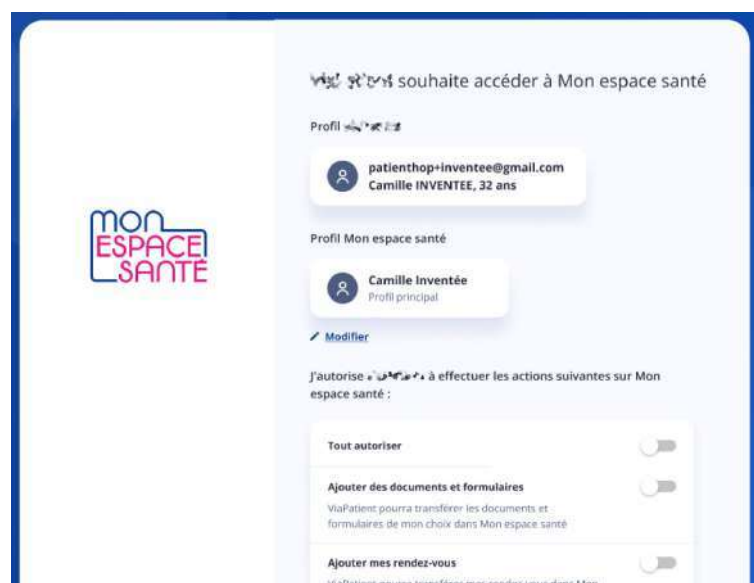
3-3. DEVELOPMENT Lastly, in addition to the options for temporary access, hiding documents or blocking access for professionals, **citizens will have even more options for defining their data access preferences in their Mon espace santé profile**. For example, this includes the option to declare their preferences for the reuse of their data for research purposes, or the ability to authorise a professional to grant access rights to other professionals (other members of the care team, medical assistants, secretaries, etc.). Eventually, to avoid users having to specify their preferences again in multiple places, they could be viewed via certain other digital services (e.g. an electronic health record, a regional e-programme tool, etc.). This will help Mon espace santé become the main hub for citizens in terms of configuring access settings for their health data.

→ From 2024, publish a framework document for enhanced management of access preferences to Mon espace santé (define preferences on secondary use, authorise one professional to grant rights to another, etc.)

CNAM - DNS - ANS



Setting access preferences in Mon espace santé.





4. Helping all citizens to make use of digital health, especially those in the most precarious and vulnerable situations



4-1. CONTINUATION To support citizens with digital technology for healthcare, we need to nurture and develop **the partnerships that have been set up in practice and at national level with those involved in digital inclusion** (departmental councils, France services offices, France services digital advisors, charities, the civic service agency, etc.) and in relation to solidarity and health. By forging relationships between these different stakeholders, we will be able to increase the number of awareness-raising measures in a variety of places (medico-social establishments, town halls, hospitals, shopping centres, etc.) to make the message more effective. The budding **network of regional coordinators, responsible for implementing local digital solidarity partnerships, will be significantly strengthened.**

4-2. CONTINUATION Digital healthcare must never widen inequalities in access to healthcare. There are currently more than 13 million people (French or foreigners living in France) who are not accustomed to using digital technology. We must also continue **training for all digital mediation stakeholders** in the most important digital health issues for citizens (Mon espace santé, using your account and booking an appointment online, teleconsultations from your computer or telephone, etc.). In addition, the issues of security and confidentiality of health data are generally very useful examples to raise people's awareness of using digital health in their everyday lives. As such, training modules for digital mediators and the people they support will be made available.

4-3. DEVELOPMENT Following the recommendations of the citizens' committee for digital health and feedback from numerous professional and family carers' associations, we will be making it possible for people to **conveniently and securely grant access to Mon espace santé to a family member or carer** who supports them with their healthcare. In addition, there will be further efforts to improve the accessibility of Mon espace santé in order to enhance the usability of the service for people living with a disability.

→ **Ensure 80% of health and medico-social establishments implement awareness-raising measures**

by the end of 2027

DNS - ANCT - ARS/GRADeS

→ **Train 10,000 digital health mediators by June 2026**

DNS - ANCT - GIP PIX

→ **Make the required legislative changes to enable granting access to a carer by the end of 2023 and integrate the feature into Mon espace santé during 2024**

DNS - CNAM

Stand promoting Mon espace santé in a shopping centre on Réunion.





5. Ensuring everyone benefits from digital health innovations



5-1. CONTINUATION Following the introduction of these innovations, we will promote **co-design by involving healthcare and medico-social professionals and end users in the design of these solutions from an early stage**, in particular through the network of third place trial centres. The aim will mainly be to develop and roll out innovative and useful solutions in response to priority health issues such as mental health and ageing well.

Launch of the third-place community, 26 January 2023 in Lille



5-2. DEVELOPMENT There will be a strong focus on two innovation areas of major interest: **preventing loss of independence and mental health**. Responses designed to tackle these priority social issues will be launched as part of France 2030 in an effort to accelerate the deployment of useful digital innovations.

5-3. CONTINUATION It is essential that we demonstrate the added value (clinical, organisational, quality of life for the individual) of digital health innovations if they are to be rolled out and, in some cases, reimbursed. We will continue to **increase our efforts to support the clinical and medico-economic evaluation of digital medical devices**. We will make it a priority to support the implementation of robust clinical investigations alongside the HAS and to facilitate access to the European market by merging the evaluation methodologies of the Member States.

5-4. CONTINUATION In addition, we will **shorten the time it takes for the CE marking process** for digital medical devices by increasing the number of notified bodies and their processing capacity, and also by supporting companies in the process.

5-5. DEVELOPMENT We will develop an **open national database of clinical trials in France to promote the conduct of clinical trials in France and improve the inclusion of participants in these trials**. It will be accessible via APIs to the public and private ecosystems.

5-6. CONTINUATION Lastly, **early access to reimbursement for digital devices (PE-CAN)**, a new method to accelerate reimbursement for digital medical devices, will be developed through ensuring that prescribers are aware of the digital medical devices eligible for this advance reimbursement.

→ **Co-finance 30 third places and 100 trials by 2026 by identifying ways to ensure funding continuity for innovation in healthcare organisations**

DNS - BDT

→ **Launch from the 1st quarter of 2024 two major challenge responses (to mental health and preventing loss of independence) and publish the associated roadmaps**

DNS - DMSMP - AIS - DGE - DGRI - CNSA

→ **From 2024, publish an evaluation matrix for digital medical devices that aligns with our European counterparts and co-fund more than 75 clinical evaluations of digital medical devices by 2026**

DNS - HAS - DGE - DGRI - BpiFrance

→ **Reduce the time taken to issue medical CE marking by 6 months by 2026**

DGE - DNS - AIS

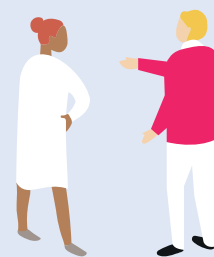
→ **Launch an API for viewing the database of clinical trials in France in the first quarter of 2024**

DNS - DGS - DNUM

→ **Hit the target of 50 digital medical devices having applied for early access to reimbursement by the end of 2026**

DNS - DSS - HAS - ANS - CNAM

Feuille
DE ROUTE
DU NUMÉRIQUE
EN SANTÉ
2023-2027





TREATMENT





Freeing up time for healthcare professionals and improving patient care thanks to digital technology



If we want digital technology to improve healthcare and support for the population, it must first and foremost **make life easier for professionals and improve their working conditions.**

Professionals find themselves switching from one tool to another several times a day. We need to simplify switching from one to the other by **facilitating access to relevant data and improving the clarity of the new range of services.**

We have a huge amount of work ahead of us to ensure that **healthcare professionals can access their patients' health history,** wherever they practise.

Lastly, as with any major transformation, the development of digital health must be supported by an **ambitious plan for the initial and on-going training of professionals,** to suitably address the challenges.



6. Enabling professionals to access the health history of the patients they treat



6-1. DEVELOPMENT A crucial factor in the quality of care is **efficient access for professionals to their patients' medical records**. This is the challenge for wave 2 of the Ségur numérique programme: there must be continued efforts until professionals and establishments have fluid, user-friendly access, wherever they practise, while ensuring the confidentiality of the data they are viewing. In addition to access via the electronic health record (DMP) web portal, professionals will be able to simply access semi-structured data from Mon espace santé (report, prescriptions, follow-up letters, lab results, medical profiles, personalised support plans, etc.) **integrated directly into their business software, both in community care and in hospitals**. This access is essential, particularly in the event of an emergency.

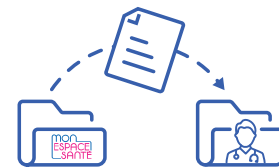
6-2. DEVELOPMENT The DRIM-M project (Data, Radiology, Medical Imaging & Nuclear Medicine) will simplify access to imaging resources, which is currently particularly complex. Through innovative digital solutions, it will let healthcare professionals **view an examination performed anywhere in the country** and find out about the patient's previous examinations. Patients will also be able to access their own scans online, which will mean the phasing out of CD-ROMs given out when leaving the imaging centre, and will reduce the number of redundant examinations.



6-3. DEVELOPMENT To create a practical **European vision of digital health**, we need to be able to offer the same type of service to professionals for all European citizens (tourists, residents, etc.) they provide care to. At the same time as rolling out the MyHealth@EU – SESALI platform solutions, particularly in cross-border regions, France must develop tailored access for foreign professionals. This will improve the quality of care that French citizens receive when they travel or migrate in Europe, with consent required each time they access the platform.



→ **Ensure more than 50% of practising doctors consult the content of their patients' Mon espace santé profile during the year by the end of 2026**
DNS - CNAM - ANS



→ **Enable access for professionals to their patients' scans via a link in the imaging report by 2025**
DNS - ANS

→ **Enable access for European healthcare professionals to French patients' health documents by the end of 2026**
ANS - CNAM



8. Rolling out the services package for professionals, the e-prescription and secure login methods for healthcare professionals



8-1. CONTINUATION At the same time, the **digital services package for healthcare professionals will enable them to save time and easily access various existing services** (amelipro, Web PS DMP, ordering a CPS card, amending data on health services in the ROR, etc.) that are not directly integrated into professionals' software or that require very fast development cycles. **Professionals will also be able to find a range of trusted solutions in the services package, listed by public authorities** (business software, regional solutions, telemonitoring solutions, reimbursements for digital devices, etc.).

8-2. DEVELOPMENT Furthermore, **new interfaces will be available for listed professional software to access the data in Mon espace santé**, whether in document format or other structured resources.

8-3. CONTINUATION In addition, we need to offer all professionals, as well as their administrative teams and assistants **easy access to all their digital services, particularly Assurance Maladie teleservices**. This will involve the widespread roll out of Pro Santé Connect, to provide a mobile connection without the need for re-authentication from professional software, while also giving contextual information about the patient to save time and open the right file at the right time.



8-4. CONTINUATION Starting with prescribers and pharmacies, **the introduction of digital prescriptions will significantly improve the security and speed of prescription processing**.



8-5. DEVELOPMENT Lastly, it is imperative to **standardise user-friendly two-factor authentication for all healthcare professionals** in order to improve the security of personal data, particularly in health, social and medico-social establishments and services. This will be facilitated by orchestrating the gradual transition to modern digital identification methods (mobile application, FIDO key, etc.), specific to each healthcare professional and linked to their RPPS identity.

→ **Launch the portal for the digital services package for professionals (BSP) in the second quarter of 2024**

CNAM - DNS - ANS -
GIE SESAM-Vitale - DGOS - HAS



→ **Introduce new access interfaces to Mon espace santé for professional tools from 2025**

CNAM - DNS - ANS - GIE SESAM-Vitale

→ **From mid-2024, enable access via Pro Santé Connect to the electronic health record, the national eHealth ID and the digital prescription, and after 2024 to electronic medical forms. Make Pro Santé Connect eIDAS-compliant with 1 million users per day by 2027**

CNAM - ANS

→ **By the end of 2024, ensure 75% of the market for practice management software has successfully passed the pre-series and 40,000 doctors have issued their first prescription**

CNAM - DNS - DSS

→ **Implement two-factor authentication to applications with sensitive data for professionals in health and medico-social establishments by 2027**

ANS - DNS



9. Simplifying the tools for local coordination of healthcare programmes



9-1. CONTINUATION In view of the proliferation of tools, it is essential to simplify, develop and improve the clarity of public regional digital services offered by the ARS, GRADeS and departmental councils for professionals supported by ARS, GRADeS and departmental councils for professionals. This process involves identifying the solutions that need to be maintained and promoted, those that can be pooled and shared with other regions, and those that can be phased out due to the national solutions that are now in place, because they are not being used enough, or in favour of market solutions purchased directly by professionals and establishments.

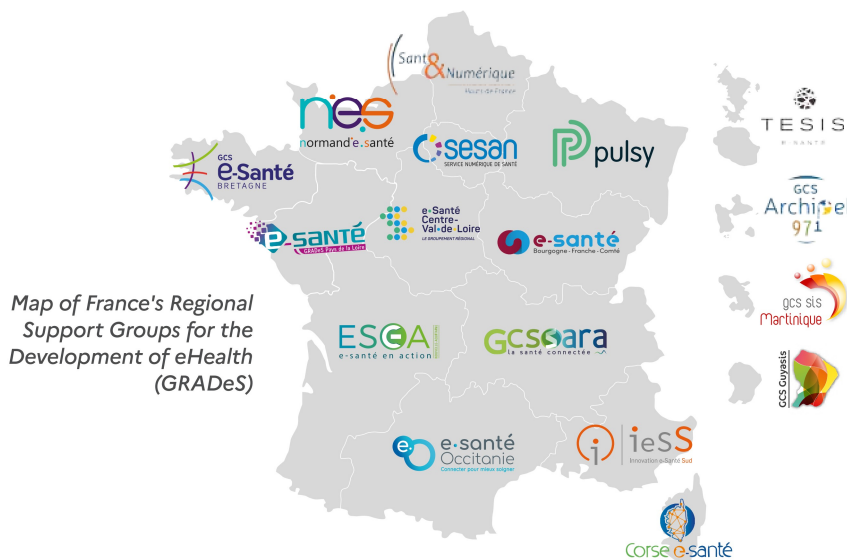
→ By the first quarter of 2024, publish a map of regional digital services implemented by the ARS and GRADeS with maturity levels in terms of doctrine, synergies and the initial possibilities for planned decommissioning
ANS - ARS/GRADeS - DNS

9-2. CONTINUATION These include regional coordination solutions (e-parcours) , which constitute a supporting element of the roll out of coordinated systems and priority healthcare programmes (diabetes, stroke monitoring, etc.). They must be maintained and improved based on better integration with Mon espace santé (food and consultation) through Pro Santé Connect. A set of requirements applicable to programme coordination solutions will standardise the rules for the interoperability of these solutions with the other core services and software used by healthcare professionals in the region (DPI, DUI, etc.). These compliant regional coordination solutions will be listed in the digital services package for professionals.

→ By mid-2024, achieve the technical integration of the national eHealth ID, Pro Santé Connect and population of Mon espace santé into all e-parcours solutions, with majority use in relation to professions listed in the RPPS+ directory from 2025
DGOS - ARS/GRADeS - DNS

9-3. DEVELOPMENT Lastly, to promote collaboration between professionals and save them time, a decentralised, secure and interoperable framework for instant healthcare messengers will be trialled to enable healthcare, medico-social and social professionals to exchange information quickly and securely, to other individuals or in groups, from their telephone or computer, whatever messenger they choose. Alongside this, improvements will be made to secure healthcare messengers and their directories to make them easier to use for professionals.

→ Enable secure instant communications between healthcare professionals using different messenger solutions on the market from 2026
ANS - DNS





10. Improving digital training and support for healthcare professionals, and medico-social care professionals



10-1. CONTINUATION To develop the use of digital technology in healthcare, it is essential to support and **train all professionals**. Firstly, all medical, paramedical and social work students will have training time dedicated to the challenges of digital health (GDPR, security, patients' rights, e-health, etc.).

→ **By 2027, include digital health training in all initial training courses in the health, social and medico-social sectors and train 500,000 students**

DNS - DGESIP - DGOS



One year of the Digital Health Acceleration Strategy in Lyon – 21 November 2022

First skills reference framework for post-baccalaureate health professionals

5 key areas



10-2. CONTINUATION And secondly, throughout their careers, **ongoing training will include sections dedicated to digital health** for every professional working in the health, social and medico-social sectors, in conjunction with the relevant skills operators and bodies (French National Association for In-Service Training of Hospital Staff, French National CPD Agency, Health Skills Operator).

→ **By 2027, include digital training in the training catalogue of all skills operators and CPD organisations for healthcare professionals, and provide training to at least 10% of working professionals**

DNS



Winners of the Skills and Professions of the Future call for expressions of interest (AMI CMA)
Sylvie Retailleau, Minister for Higher Education and Research





FUILLE
DE ROUTE
DU NUMÉRIQUE
EN SANTÉ
2023-2027



ACCESS TO HEALTHCARE



Improving access to healthcare for people and the professionals who refer them



Digital health **must provide practical solutions to healthcare access issues throughout France.**

This primarily means improving **access to information on health and health services**, for each care speciality throughout France, and by **helping people to find a GP.**

The **development of telehealth in areas with a low medical density and for priority healthcare programmes** will also play a crucial role in improving access to healthcare.

We will also continue to make efforts to extend and develop the use of the **access to treatment service (SAS) and tools for emergency medical assistance service (SAMU)** in order to help people access urgent or unscheduled care, and to ensure that **admissions** to emergency departments occur in the best possible conditions.

Lastly, the introduction of the carte Vitale app will ensure you get direct reimbursements for care, even if the physical Carte Vitale is lost or forgotten, and will **further support the widespread roll out of the national eHealth ID (INS).**



11. Improving information for patients and professionals about health and healthcare provision in local authorities



11-1. CONTINUATION Instead of their doctor, the French population are increasingly turning to the Internet for information when they have a health-related question. To tackle misinformation in the health sector, the Santé.fr website will demystify health topics and, like ameli.fr, will help share **reliable public health information**. This information will be produced in conjunction with the public (patient groups, academic societies, etc.). It must be tailored to the rapid evolution of online practices, and be accessible, customisable and reusable (APIs, iframes, etc.) by other online services in the field of health.



11-2. CONTINUATION In addition, **information on accessing healthcare should be supplemented** on Santé.fr, with topic maps, improved data quality, ensuring data is up to date, displaying quality and satisfaction indicators (mainly from QualiScope, e-Satis, Eval-Santé), links to online appointment booking platforms used by practitioners and information on the accessibility of practices, etc. This information on accessing healthcare is based on **improved reference identity directories**:

- > The **French healthcare professionals shared directory (RPPS)**, which is being extended to all professionals working in the health, medico-social and social sectors who need it, following the end of the ADELI directory;
- > The **French National Directory of Health and Social Establishments (FINESS)** will be overhauled in 2024, enabling the integration of new structures;
- > The **Operational Resources Directory (ROR)**, which is now in use across France, is improving its content and the data it processes with professionals now able to directly enter certain personal details in the directory.

11-3. DEVELOPMENT To facilitate **access to a GP** to the more than 6 million patients who do not have one, in addition to the actions taken by the Assurance Maladie in practice, GPs who are accepting new patients will be offered the opportunity to be listed on Santé.fr. In addition, the services listed in the Mon espace santé and digital services package for healthcare professionals catalogues will be able to easily find the identity of a person's GP, for example to routinely send them a report via secure messenger.

→ **Pass the milestone of 30 million unique visitors per year on Santé.fr by 2027**
DNS - ANS

→ **From 2024, provide more information about healthcare services on Santé.fr, particularly on where to make an appointment with healthcare professionals**
DNS - ANS



→ **From 2024, include in the operational health resources directory (ROR) information on professionals accepting new patients as their GP and make this visible on Santé.fr. Beyond 2024, make primary care physician identities accessible to applications in the services catalogue in Mon espace santé according to the use cases identified.**
DGOS - CNAM - DNS



12. Developing the use of telehealth within a regulated and ethical framework



12-1. CONTINUATION Telehealth will facilitate access to healthcare, particularly in areas with low medical density, through the cooperation of all professionals, in particular pharmacists, nurses and digital mediation professionals.

→ Achieve a 35% adoption rate for teleconsultations by private doctors by the end of 2025

DGOS - CNAM - DNS

12-2. DEVELOPMENT The role of telehealth will be supported and evaluated in priority healthcare programmes, for example by:

- > Developing the gradual use of tele-expertise (for example, in community care with the referring specialist, in local hospitals with the support establishment of the GHT or the CHU, etc.) in structured programmes, particularly for rare diseases and cancer;
- > Extending telemonitoring to chronic conditions other than those covered by the ETAPES programme (Telemedicine Trials for the Improvement of Healthcare Programmes);
- > Developing the use of telehealth for patients with chronic diseases;
- > Promoting telecare, particularly for rehabilitation.

→ Ensure more than 1 million patients suffering from a chronic condition benefit from at least one telehealth procedure as part of their care by 2025

DGOS - DNS - HAS

12-3. DEVELOPMENT Lastly, telehealth will have to be developed so it can function with more interoperable tools (with Mon espace santé, with professional business software, etc.) and comply with safety and ethical requirements, by continuing to reflect on the development of remote medical and care practices. In particular, an initial framework for teleconsultation tools will be enforceable from 2023. It will include important elements on teleconsultation ethics and will be accompanied by a best practice framework created by the HAS.

→ Publish a set of requirements for teleconsultation solutions by the end of 2023 and list more than 15 telemonitoring services with a view to their reimbursement

ANS - HAS - CNAM - DNS





13. Promoting and interlinking digital platforms for medical regulation and emergency care



13-1. **CONTINUATION** At the same time, stakeholders in the medical regulation chain of **healthcare access services (SAS)** will be able to get real-time access via the SAS digital platform to available slots in the diaries of the majority of the region's professionals, and immediately book an appointment for a patient who needs one.

13-2. **CONTINUATION** In addition, public authorities will continue to support the **modernisation of the digital tools needed by the SAMU** (dashboard, portal, etc.) through an interface with their medical regulation software, which will improve interoperability and the resilience of their telephone infrastructures.

13-3. **DEVELOPMENT** Lastly, in response to strong demand in this area, a working group will be launched through the CNS to examine the digital challenges facing healthcare transport.

→ **Roll out the SAS platform to at least 90% of departments by the end of 2023**

DGOS - ANS - DNS



→ **Funding of medical regulation software (15-15, 15-18) interoperability by the end of 2024 and roll out of the national dashboard (call display and prioritisation tool) in 75% of SAMUs before the end of 2027**

DGOS - ANS - DNS

→ **Launch a working group in 2026 on the digital challenges facing healthcare transport through the CNS to troubleshoot and define specific guidelines and measures**

DNS



Roll out of the SI-SAMU national dashboard in Troyes in early 2023





14. Extensively promoting the Carte Vitale application and the national eHealth ID (INS)



14-1. CONTINUATION As part of our efforts to improve access to healthcare, widespread diffusion of the carte Vitale app will enable physical reimbursement of healthcare costs even if the carte Vitale is lost, forgotten or inaccessible (telehealth, etc.). The carte Vitale app can already be used in a number of online services and will also be very useful for streamlining the billing of healthcare costs in telehealth practices. Lastly, it will offer **people a secure and compliant connection**, possibly via France Connect+, (high-level assurance eIDAS certification of the carte Vitale application expected by 2025) for accessing their health data.



→ **High-level assurance eIDAS certification of the carte Vitale app and introduction of the app to the whole of France by the end of 2025, with the aim of having 20 million users by 2027**
GIE SESAM-Vitale - CNAM
 DSS - DNS



14-2. CONTINUATION We will also continue our efforts to secure the widespread use of patient identity verification based on improvements to the INSi teleservice to improve patient identification vigilance. In addition, **the carte Vitale app will also be used to improve patient identification vigilance around the national eHealth ID (INS).**

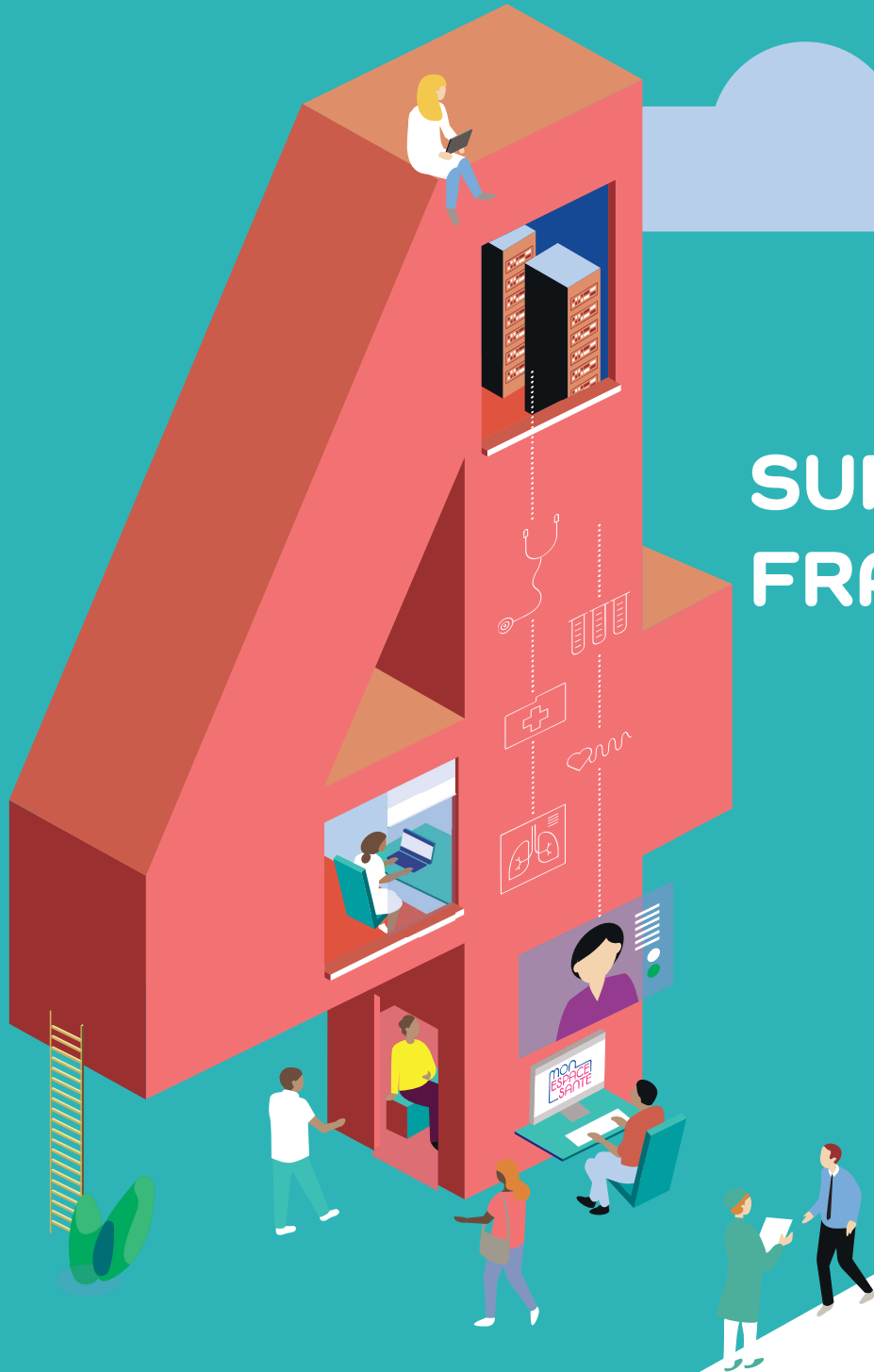
→ **Hit 90% verified in 2024 for national eHealth IDs in the active patient records of establishments, in particular through better synchronisation of the SNGI and RFI databases**

DNS - DGOS - CNAM -
GIE SESAM-Vitale - ANS - DGS

The poster is divided into two columns by a vertical dashed line. The left column is titled 'Sans INS' and shows four separate instances of the patient Sarah-Lou Garcia-Hamadi. Each instance is associated with a specific healthcare provider: 'chez son médecin', 'chez son radiologue', 'dans son laboratoire', and 'chez son pharmacien'. Below this, it states: 'Vous et votre médecin ne recevez pas vos résultats numériquement.' The right column is titled 'Avec INS' and features the 'Identité Nationale de Santé' logo at the top. It shows a central instance of Sarah-Lou Garcia-Hamadi connected by dashed lines to four icons: a document with a checkmark, a magnifying glass over a document, the 'mon ESPACE SANTÉ' logo, and the 'INS' logo. Below this, it states: 'Vos documents de santé sont dans Mon espace santé et envoyés à votre médecin.'

Poster promoting national eHealth ID for private practitioners

SUPPORTIVE FRAMEWORK





Developing a framework that supports the development of solutions and digital innovation in healthcare



Given the international geopolitical context and the intrinsic value of healthcare data, **we must significantly boost cyber vigilance with resources commensurate to what is at stake.** In particular, this applies to health and medico-social establishments, which are still lagging far behind, by prioritising key organisations without forgetting small establishments, and by securing ongoing digital resources amounting to at least 2% of the budget of the stakeholders involved.

The Platform State model allows **private stakeholders to roll out useful and innovative digital services and the State regulates them,** with co-developed frameworks, support for businesses, compliance checks, while also ensuring effective compliance with incentive schemes and possible penalties.

Without **digital skills and talent to work in healthcare,** our ambitions will be in vain. We need to identify the gaps, improve conditions and promote these exciting, meaningful and technically challenging professions that sit at the crossroads of healthcare and digital technology.

As we progress through this journey, **health data must remain our common guiding thread.** It plays a key role throughout the chain, with its initial collection, its quality, its structuring, its secure sharing and its re-use for research, innovation and the improvement of public policies. That is why it is essential to develop an ambitious strategy for reusing data and providing open access to it.



15. Majorly improving cyber in establishments, our sovereignty on hosting and our resilience to future health crises



15-1. DEVELOPMENT Faced with this situation, we need to quickly take major collective action in order to achieve a sufficient level of preparedness and resilience. This is the ambition of the **Cyber Acceleration and Resilience of Establishments (CARE)** programme, which will be implemented over 5 years, with substantial and unprecedented investment in this area, aimed at achieving major milestones, such as the cyber surveillance and Active Directory audit scores.



→ **Launch the cyber acceleration and resilience of establishments (CARE) programme in mid-2023**
DNS - HFDS - DGOS - ARS/GRADeS
ANSSI - ANS



15-2. DEVELOPMENT It aims to support the **implementation of national governance** of cybersecurity in healthcare at national (ANSSI, ANS, DGOS, companies), regional (ARS, GRADeS and regional authorities) and local level (professionals and establishments), with clear, unified oversight, while also **improving governance in establishments on this subject**. This is one of the points that will be included in the HAS certification of health establishments.

→ **Improve digital and cyber criteria in HAS certification of healthcare establishments by Q1 2024, with dedicated visitors**
HAS - DNS - DGOS - ANS

15-3. CONTINUATION Training and raising awareness of cybersecurity and IT hygiene among all stakeholders in healthcare, medical-social care and social services will be the focus of our policies, whatever their role and the way in which they work. There is also a need to **improve crisis preparations by conducting regular exercises**, to ensure that we are able to react quickly, with the correct response, and to organise continuity of care and the gradual return to normal activity levels.



→ **Ensure all establishments conduct an annual or biannual cyber crisis exercise by 2027 at the latest**
DNS - ARS/GRADeS - DGOS
ANS - DGCS - CNSA

Digital hygiene awareness-raising campaign



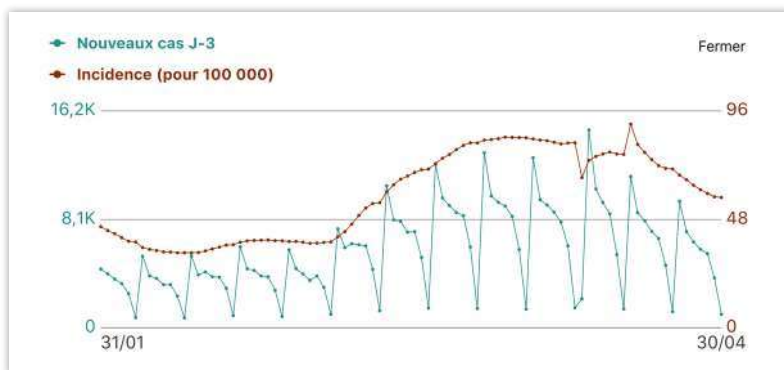


Network technician at a hospital site

15-4. DEVELOPMENT Ensuring the **sustainability of human resources** involved in digital technology and cyber security will be a core challenge. This includes work on **scaling of resources**, the appeal and retention of skills, but also support for pooling initiatives to create economies of scale and achieve the resources required (GHT, pooled services, etc.).

15-5. CONTINUATION In addition, the regulatory framework for hosting will need to be improved in order to **strengthen our data sovereignty**. Initially, the new “health data hosting” (HDS) certification will change in 2023 to include systematic hosting of health data in the European Economic Area, with legal or technical measures to reduce the risk of data being transferred to another territorial jurisdiction. By 2027, once we have reached a European consensus on the requirements of level 3 of the future European Cybersecurity Certification Scheme for Cloud Services (EUCS), and a sufficiently broad data sovereignty offering is available, HDS certification will set new requirements in terms of sovereignty. We encourage stakeholders to plan ahead, starting as early as possible with their new projects.

15-6. CONTINUATION In response to the COVID-19 crisis, information systems were built for specific needs and sometimes in a rush. However, these systems played a key role in fighting the pandemic (measuring incidence, monitoring vaccination coverage, providing information and booking appointments, etc.). **To prepare for future crises, it is essential to be proactive and build the necessary services in all areas** (monitoring tests and vaccines, alerting and informing patients and professionals, logistics, data re-use and open data, etc.), based wherever possible on the information systems used on a daily basis by professionals and patients.



Screenshot of the TousAntiCovid application in May 2023, showing COVID-19 epidemic indicators from the SI-DEP screening system

→ **By 2027 at the latest, ensure healthcare establishments devote an average of at least 2% of their budget to digital services, including 10% for cyber security and infrastructure, with the introduction of a permanent digital rate in the fee structure**

DGOS - DNS

→ **Make initial improvements to health data hosting sovereignty in 2023 (location and transparency), before making further improvements planned for 2027**

DNS - ANS

→ **Create a master plan for health crisis information systems in 2024**

DNS - CNAM - DGS - SPF



16. Mainstreaming the co-construction of requirements frameworks, sector by sector, by ensuring conformity of the solutions used by healthcare stakeholders



16-1. DEVELOPMENT Building on the experience of recent years and the success of the Ségur Numérique programme, the public authorities plan, under the guidance of sector managers, to **co-develop packaged requirements frameworks with health professionals and digital health companies (ENS), sector by sector** (LGC, DPI, RI, TLC, TLS, TLE, DUI, LGO, SGL, RIS, etc.), to make the policies easier to understand.

→ **Publication of implementing provisions on the regulation of digital health by the end of 2023**
DNS - ANS - CNAM



16-2. DEVELOPMENT The various public stakeholders involved (ANS, GIE SESAM-Vitale, CNDA and ATIH) will **work together as a unit to support ENSs** to ensure compliance with these frameworks, by creating a single directory of ENSs and their solutions, and by offering them a standardised support package (project days, projectathons, shared monitoring tools, shared publication platforms, test areas, etc.) mainly based on the French National Portal for eHealth Innovation(G_NIUS).

→ **Have a single directory of digital health companies and their solutions to simplify their dealings with public authorities and provide them with better support by the end of 2024**
ANS - GIE SESAM-Vitale



16-3. DEVELOPMENT Public authorities will **encourage effective compliance with these sectoral frameworks** by introducing **specific procedures for verifying compliance** by the ANS alongside its partners and certifying bodies. Funding will also remain **conditional on such compliance** and conducting **audits prior to any possible penalties** according to multi-year schedules defined with the stakeholders.

→ **Implementation in 2025 of a penalties system applicable to digital health companies that have been outside the scope of enforceable frameworks for a long time**
ANS - CNAM - DNS



Listing specifications file by type of software on the ANS website

DSR Title	Description	Days Remaining
DSR - SGL	Les DSR ont pour objectif de lister, le plus vite...	0 Jours restants
DSR LGC sans financement	Protégement du dispositif pour le cockpit Méde...	47 Jours restants
DSR RI	Les DSR ont pour objectif de lister, le plus vite...	0 Jours restants
DSR PFI	Les DSR ont pour objectif de lister, le plus vite...	0 Jours restants
DSR DPI	Les DSR ont pour objectif de lister, le plus vite...	0 Jours restants
DSR RIS Sans financement	Les DSR ont pour objectif de lister, le plus vite...	44 Jours restants
DSR Transcodeur LOINC	Les DSR ont pour objectif de lister, le plus vite...	0 Jours restants
DSR MS1 DUR PA/PI/DOM	Les DSR ont pour objectif de lister, le plus vite...	251 Jours restants
DSR LGO sans financement	Protégement du dispositif pour le cockpit OFFI...	145 Jours restants



Videoconference 7 of the Ségur Numérique programme monitoring committee on 5 April 2023 with 450 participants

16-4. CONTINUATION In particular, building on the initial work of the Ségur Numérique programme, the plan is **to continue and extend to new sectors the dedicated funding initiatives** that aim to accelerate the adoption of core services and sector frameworks by healthcare professionals and digital health companies. This mainly corresponds to wave 2 of the Ségur Numérique programme, to be implemented in 2024-2025, with priorities including integrated consultation in Mon espace santé, enhanced software security, access to scans, and opening up to new professions (dental surgeons, midwives, nurses, chiropractors, physiotherapists, orthoptists and speech therapists, etc.).

16-5. DEVELOPMENT Lastly, to support compliance with frameworks by stakeholders and increase transparency, **a cross-disciplinary e-health monitoring body** will be set up, indicating the maturity level of health, social and medico-social establishments and private professionals. It will be supported by a single publishing platform for digital health companies, sector by sector, with their various solutions, indicating the certifications and compliance procedures obtained, as well as an open data platform on usage metrics for the core digital health services. In addition, to facilitate comparisons between European countries on digital health, France will encourage the creation of a platform to access this data.

→ **Launch of wave 2 of the Ségur Numérique programme (new professions, DMP consultation, DRIM-M, etc.) at the end of 2023**
DNS - ANS



→ **Launch at the end of 2023 of the digital maturity framework (MaturiN) for medico-social establishments and hospitals and reporting in the e-health monitoring body, with the aim of bringing 100% of establishments on board in 2026**

ANS - DGOS - DNS - CNAM - GIE
SESAM-Vitale - ATIH





17. Attracting digital talent to work in health



17-1. DEVELOPMENT To lay the foundation, we will **map out digital health professions**, by evaluating priority requirements in partnership with stakeholders (federations of establishments and companies, training bodies, etc.).

17-2. DEVELOPMENT There is also a need for continued support for establishments to recruit and retain this talent, with **appropriate, shared pay scales and frameworks**, for example, for hospital engineers and senior technicians, as part of the collective agreements applicable to contract staff, as well as for the remuneration of trainees and apprentices.

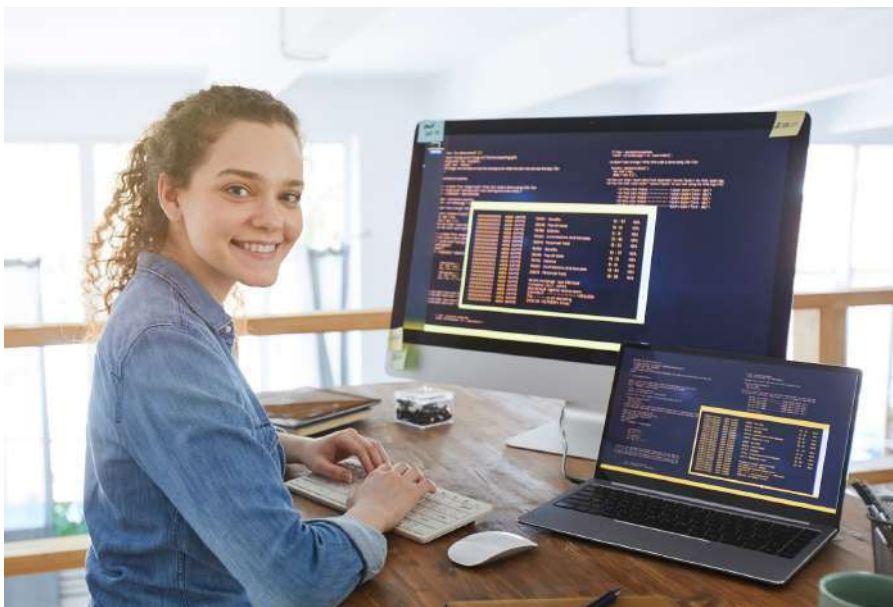


17-3. DEVELOPMENT In addition, we must work on initiatives in close collaboration with healthcare professionals, digital health companies and their representatives to **make the sector more attractive to digital professionals and schools**, by presenting the right job opportunities to them.

→ **By the end of 2024, publish an evaluation report on digital professions in the healthcare sector, at least within the initial scope of health establishments**
DNS - DGOS

→ **Align the hospital engineers' pay scale with the State civil service equivalent before the end of 2023 to make digital jobs more attractive**
DGOS - DNS

→ **Launch initiatives with employers to promote digital health jobs in 2026**
DNS



IT developer



18. Developing digital health research and the secondary use of health data in particular



18-1. DEVELOPMENT A strategic roadmap for health data overseen by the DREES and created in consultation with stakeholders (healthcare professionals, healthcare organisations, users, researchers, national research bodies, public authorities, etc.), will be implemented and will help **facilitate access to data for research and innovation**.

18-2. CONTINUATION In particular, this strategy has strong ambitions in terms of developing and structuring our capacity to collect, ensure the quality of and share health data, in a coordinated way between the Health Data Hub and a **network of health data warehouses**, based on relevant data sources and sustainable business models.

18-3. DEVELOPMENT This must also be firmly rooted at European level, by successfully implementing **the project to interconnect national platforms for secondary re-use of data**, for uses that require access to a wider range of data.



18-4. CONTINUATION Lastly, to prepare for the future, we will conduct ambitious research and development initiatives to **develop new breakthrough digital health technologies over the next 10 years**, particularly in the field of imaging, by working closely with the relevant ministries and national research bodies.

→ **Publish a national strategy on the re-use of and open access to health data by Q1 2024**

DREES - DNS - DGRI - DGE
PDS - CNAM

→ **Fund 50 federated hospital data warehouses at regional level and/or connected at national level by 2027**

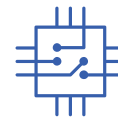
DGOS - DREES - DNS - DGRI
DGE - PDS - ATIH

→ **Successfully pilot a network of European data warehouses in 2025 based on five use cases**

PDS

→ **Fund more than 300 digital health research and development projects by 2026**

DNS - DGRI - DGE - AIS - DGOS
DGS - DREES - DMSMP



3 April 2023 Ceremony for the winners of the first call for health data warehouse projects.

Summary table



PREVENTION

Developing prevention and giving everyone an active role in their own health

Priorities	Objectives	Bodies	Objective, indicator and/or timeline
1 - Using Mon espace santé in everyday life to manage your health	1-1. Populate Mon espace santé	DNS CNAM ANS	Hit a population rate of 250 million healthcare documents per year in Mon espace santé by professionals by the end of 2023 and 400 million by the end of 2026
	1-2. Send prescriptions by messenger for citizens	CNAM DNS	Launch the first versions of the Mon espace santé messenger for sending prescriptions to pharmacists from May 2023 and design a messaging API for citizens in 2024
	1-3. Child health record	CNAM DNS	Introduce reminders of compulsory check-ups and advice on children's health in Mon espace santé by the end of 2023 and health reports and certificates by 2025
	1-4. Connect healthcare portals for individuals	CNAM DNS - DSS	Develop the first pathways linking Mon espace santé, Santé.fr and the ameli account (key ages, women's health, etc.) from 2024
2 - Developing personalised prevention	2-1. Personalised prevention in Mon espace santé	CNAM DNS	Send out the first personalised prevention notifications in Mon espace santé in 2024
	2-2. Check-ups at key ages	DNS CNAM	Enable 1 million patients to draft a preventive assessment in Mon espace santé by 2027
	2-3. Prevention software features for healthcare professionals	DNS ANS	Promote the development of prevention and population management features in healthcare professionals' software by 2027
	2-4. Environmental health	DNS	From 2024, launch a working group within the framework of the Digital Health Council to troubleshoot and define specific guidelines and measures
3 - Giving everyone an active role in their own health and control of their data	3-1. Catalogue of applications with data exchanges	GIE SESAM-Vitale ANS - CNAM - DNS	List as approved more than 50 applications offering data exchanges with Mon espace santé by the end of 2026
	3-2. Temporary access to Mon espace santé	CNAM DNS	From 2024, define the different ways citizens can share access depending on the care situation
	3-3. Data access control	CNAM DNS - ANS	From 2024, publish a framework document for enhanced management of access preferences to Mon espace santé (define preferences on secondary use, authorise one professional to grant rights to another, etc.)
4 - Helping all citizens to make use of digital health, especially those in the most precarious and vulnerable situations	4-1. Support for digital health and digital inclusion	DNS ANCT - ARS/GRADeS	Ensure 80% of health and medico-social establishments implement awareness-raising measures by the end of 2027
	4-2. Training of digital mediators	DNS ANCT - GIP PIX	Train 10,000 digital health mediators by June 2026
	4-3. Granting rights to a carer	DNS CNAM	Make the required legislative changes to enable granting access to a carer by the end of 2023 and integrate the feature into Mon espace santé during 2024
5 - Ensuring everyone benefits from digital health innovations	5-1. Co-design	DNS BDT	Co-finance 30 third places and 100 trials by 2026 by identifying ways to ensure funding continuity for innovation in healthcare organisations
	5-2. Major challenges	DNS DMSMP - AIS - DGE - DGRI - CNSA	Launch from the first quarter of 2024 two major challenge responses (to mental health and preventing loss of independence) and publish the associated roadmaps
	5-3. Clinical and economic evaluation	DNS HAS - DGE - DGRI - BpiFrance	From 2024, publish an evaluation matrix for digital medical devices that aligns with our European counterparts and co-fund more than 75 clinical evaluations of digital medical devices by 2026
	5-4. CE marking	DGE DNS - AIS	Reduce the time taken to issue medical CE marking by 6 months by 2026
	5-5. Clinical trials	DNS DGS - DNUM	Launch an API for viewing the database of clinical trials in France in the first quarter of 2024
	5-6. Early access to reimbursement	DNS DSS - HAS - ANS - CNAM	Hit the target of 50 digital medical devices having applied for early access to reimbursement by the end of 2026



TREATMENT

Freeing up time for healthcare professionals and improving patient care thanks to digital technology

Priorities	Objectives	Bodies	Objective, indicator and/or timeline
6 - Enabling professionals to access the health history of the patients they treat	6-1. Professionals consulting Mon espace santé	DNS CNAM ANS	Ensure more than 50% of practising doctors consult the content of their patients' Mon espace santé profile during the year by the end of 2026
	6-2. Access to imaging resources	DNS ANS	Enable access for professionals to their patients' scans via a link in the imaging report by 2025
	6-3. MyHealth@EU	ANS CNAM	Enable access for European healthcare professionals to French patients' health documents by the end of 2026
7 - Improving the integration and ergonomics of core services in the tools that healthcare professionals use on a daily basis	7-1. Resolve digital flaws experienced by professionals	DNS ANS - CNAM	From 2023, trial an assessment method for the satisfaction of healthcare professionals, particularly private professionals, in relation to their business software
	7-2. HOP'SUN	DGOS DNS	Launch a new programme to support intra-hospital digital solutions in 2024
	7-3. Simplify and digitise administrative processes in hospitals	DGOS - ANS - CNAM - GIE SESAM-Vitale	Hit 1,200 healthcare establishments using CDRI and 650 healthcare establishments using the reimbursement scheme for supplementary healthcare insurers by the end of 2024
8 - Rolling out the services package for professionals, the e-prescription and secure login methods for healthcare professionals	8-1. Launch portal for digital services package for professionals	CNAM DNS - ANS GIE SESAM-Vitale DGOS - HAS	Launch the portal for the digital services package for professionals (BSP) in the second quarter of 2024
	8-2. Introduce new interfaces for accessing Mon espace santé for professional tools	CNAM DNS - ANS GIE SESAM-Vitale	Introduce new access interfaces to Mon espace santé for professional tools from 2025
	8-3. Integrate Pro Santé Connect, an established core service, into Assurance Maladie services	CNAM ANS	From mid-2024, enable access via Pro Santé Connect to the electronic health record, the national eHealth ID, the digital prescription and then to electronic medical forms. Make Pro Santé Connect eIDAS-compliant with 1 million users per day by 2027
	8-4. Digital prescription	CNAM DNS - DSS	By the end of 2024, ensure 75% of the market for practice management software has successfully passed the pre-series and 40,000 doctors have issued their first prescription
	8-5. Roll out of 2-factor authentication in establishments	ANS DNS	Implement two-factor authentication to applications with sensitive data for professionals in health and medico-social establishments by 2027
9 - Simplifying the tools for local coordination of healthcare programmes	9-1. Optimise the regional digital services offering	ANS ARS/GRADeS DNS	By the first quarter of 2024, publish a map of regional digital services implemented by the ARS and GRADeS with maturity levels in terms of doctrine, synergies and the initial possibilities for planned decommissioning
	9-2. E-parcours	DGOS ARS/GRADeS DNS	By mid-2024, achieve the technical integration of Pro Santé Connect and population of Mon espace santé into all e-parcours solutions, with majority use in relation to professions listed in the RPPS+ directory from 2025
	9-3. Instant secure health messengers	ANS DNS	Enable secure instant communications between healthcare professionals using different messenger solutions on the market from 2026
10 - Improving digital training and support for healthcare professionals, and medico-social care professionals	10-1. Initial digital training for healthcare professionals	DNS DGESIP - DGOS	By 2027, include digital health training in all initial training courses in the health, social and medico-social sectors and train 500,000 students
	10-2. Ongoing digital training for healthcare professionals	DNS	By 2027, include digital training in the training catalogue of all skills operators and CPD organisations for healthcare professionals, and provide training to at least 10% of working professionals

Summary table



ACCESS TO HEALTHCARE

Improving access to healthcare for people and the professionals who refer them

Priorities	Objectives	Bodies	Objective, indicator and/or timeline
11 - Improving information for patients and professionals about health and healthcare provision in local authorities	11-1. Reliable health information, coordinated by Santé.fr	DNS ANS	Pass the milestone of 30 million unique visitors per year on Santé.fr by 2027
	11-2. A clear healthcare offering	DNS ANS	From 2024, provide more information about healthcare services on Santé.fr, particularly on where to make an appointment with healthcare professionals
	11-3. Facilitate access to GPs	DGOS CNAM DNS	From 2024, include in the operational health resources directory (ROR) information on professionals accepting new patients as their GP and make this visible on Santé.fr. Beyond 2024, make primary care physician identities accessible to applications in the services catalogue in Mon espace santé according to the use cases identified.
12 - Developing the use of telehealth within a regulated and ethical framework	12-1. Telehealth in low medical density areas	DGOS CNAM - DNS	Achieve a 35% adoption rate for teleconsultations by private doctors by the end of 2025
	12-2. Telehealth to support priority healthcare programmes	DGOS DNS - HAS	Ensure more than 1 million patients suffering from a chronic condition benefit from at least one telehealth procedure as part of their care by 2025
	12-3. Reliable telehealth tools	ANS HAS - CNAM DNS	Publish a set of requirements for teleconsultation solutions by the end of 2023 and list more than 15 telemonitoring services with a view to their reimbursement
13 - Promoting and interlinking digital platforms for medical regulation and emergency care	13-1. Healthcare access service (SAS)	DGOS ANS DNS	Roll out the SAS platform to at least 90% of departments by the end of 2023
	13-2. SI-SAMU programme	DGOS ANS DNS	Funding of medical regulation software (15-15, 15-18) interoperability by the end of 2024 and roll out of the national dashboard (call display and prioritisation tool) in 75% of SAMUs before the end of 2027
	13-3. Launch of a CNS working group on medical transport	DNS	Launch a working group in 2026 through the CNS to troubleshoot and define specific guidelines and measures
14 - Extensively promoting the Carte Vitale application and the national eHealth ID (INS)	14-1. Carte Vitale app	GIE SESAM-Vitale CNAM DSS DNS	High-level assurance eIDAS certification of the carte Vitale app and introduction of the app to the whole of France by the end of 2025, with the aim of having 20 million users by 2027
	14-2. Identification vigilance and national eHealth ID	DNS DGOS - CNAM GIE SESAM-Vitale ANS - DGS	Hit 90% verified in 2024 for national eHealth IDs in the active patient records of establishments, in particular through better synchronisation of the SNGI and RFI databases



SUPPORTIVE FRAMEWORK

Developing a framework that supports the development of solutions and digital innovation in healthcare

Priorities	Objectives	Bodies	Objective, indicator and/or timeline
15 - Majorly improving cyber in establishments, our sovereignty on hosting and our resilience to future health crises	15-1. CARE programme	DNS HFDS - DGOS ARS/GRADeS ANSSI - ANS	Launch the cyber acceleration and resilience of establishments (CARE) programme in mid-2023
	15-2. Improve cyber governance	HAS DNS - DGOS ANS	Improve digital and cyber criteria in HAS certification of healthcare establishments by Q1 2024, with dedicated visitors
	15-3. Raise awareness about cyber and perform exercises	DNS ARS/GRADeS - DGOS - ANS - DGCS CNSA	Ensure all establishments conduct an annual or biannual cyber crisis exercise by 2027 at the latest
	15-4. Improve and ensure the sustainability of digital and cyber resources in establishments	DGOS DNS	By 2027 at the latest, ensure healthcare establishments devote an average of at least 2% of their budget to digital services, including 10% for cyber security and infrastructure, with the introduction of a permanent digital rate in the fee structure
	15-5. Improve healthcare data hosting sovereignty	DNS ANS	Make initial improvements to health data hosting sovereignty in 2023 (location and transparency), before making further improvements planned for 2027
	15-6. Prepare for future crises	DNS CNAM - DGS - SPF	Create a master plan for health crisis information systems in 2024
16 - Mainstreaming the co-construction of requirements frameworks, sector by sector, by ensuring conformity of the solutions used by healthcare stakeholders	16-1. Co-develop frameworks	DNS ANS - CNAM	Publication of implementing provisions on the regulation of digital health by the end of 2023
	16-2. Support digital health companies	ANS GIE SESAM-Vitale	Have a single directory of digital health companies and their solutions to simplify their dealings with public authorities and provide them with better support by the end of 2024
	16-3. Ensure compliance with frameworks	ANS CNAM DNS	Implementation in 2025 of a penalties system applicable to digital health companies that have been outside the scope of enforceable frameworks for a long time
	16-4. Continue the Ségur Numérique programme with wave 2	DNS ANS	Launch of wave 2 of the Ségur Numérique programme (new professions, DMP consultation, DRIM-M, etc.) at the end of 2023
	16-5. Monitoring body for maturity of digital health companies and stakeholders	ANS DGOS - DNS - CNAM - GIE SESAM-Vitale - ATIH DNS	Launch at the end of 2023 of the digital maturity framework (MaturIN) for medico-social establishments and hospitals and reporting in the e-health monitoring body, with the aim of bringing 100% of establishments on board in 2026
17 - Attracting digital talent to work in health	17-1. Map out professions and requirements	DGOS	By the end of 2024, publish an evaluation report on digital professions in the healthcare sector, at least within the initial scope of health establishments
	17-2. Digital health pay scale	DGOS DNS	Align the hospital engineers' pay scale with the State civil service equivalent before the end of 2023 to make digital jobs more attractive
	17-3. Digital talent: make a difference in French healthcare	DNS	Launch initiatives with employers to promote digital health jobs in 2026
18 - Developing digital health research and the secondary use of health data in particular	18-1. Strategy for secondary use of data	DREES DNS - DGRI DGE - PDS - CNAM	Publish a national strategy on the re-use of and open access to health data by Q1 2024
	18-2. Data warehouses	DGOS DREES - DNS - DGRI DGE - PDS - ATIH	Fund 50 federated hospital data warehouses at regional level and/or connected at national level by 2027
	18-3. MyHealth@EU data	PDS	Successfully pilot a network of European data warehouses in 2025 based on five use cases
	18-4. Research and development in digital health	DNS DGRI - DGE AIS - DGOS DGS - DREES - DMSMP	Fund more than 300 digital health research and development projects by 2026

Reflecting on the development of the roadmap



Following the *Ma santé 2022*, report a draft roadmap for 2023–2027 was shared with the Digital Health Council on 14 December 2022, thus initiating an **online consultation** and regional tour.

During the three-month online consultation, **more than 330 contributions and responses** were submitted. The DNS also received more than a hundred individual contributions (from associations, companies, etc.) with specific meetings organised with numerous stakeholders (company representatives, patients, etc.).

In addition to this online work, over January and February 2023, discussions on the draft roadmap were held in eighteen towns in France with **more than 5,000 participants** in total meeting in person or remotely.

At each stop in the tour, the Ministerial Delegation for Digital Health, the French National Health Insurance Fund, the Digital Health Agency and the Directorate General for Healthcare Provision were able to talk with the **stakeholders working in the field** (ARS, GRADeS, CPAM, patient representatives, local health professionals and establishments, as well as a number of digital health companies).

The fruitful discussions, meetings, feedback from the field and the specific problems faced by those in the ecosystem have helped to strengthen and improve the 2023–2027 roadmap “Supporting health through digital technology”, with a focus on prevention, quality and access to healthcare.

In particular, the discussions on **software usability, ethical regulation of e-health, improving digital inclusion and the importance of long-term investment in cybersecurity** provided real food for thought.

Guadeloupe



Centre-Val de Loire



French Guiana



Provence-Alpes-Côte d'Azur



Thank you

to the ARS, the GRADeS and Assurance maladie and its network of Primary Health Insurance Funds for organising the discussions, thank you to all participants for their questions and comments, thank you to the committed citizens and stakeholders in the ecosystem, to the unions and associations for their contributions online or in person!

It is thanks to these important contributions and to this involvement, that **together we will be able to make progress on the huge projects discussed in this roadmap** and support health through digital technology.



Hauts-de-France



Corsica





Occitania



Bourgogne-Franche-Comté



Normandy



Réunion



Brittany

Glossary



ADELI	Automatisation Des Listes (Automation of Lists Directory)	DNS	Assurance Maladie Digital Health Delegates (former IT services correspondents)
AIS	Agence de l'innovation en santé (French National Agency in Health Innovation)	CPD	Continuing Professional Development
ANAP	Agence Nationale d'Appui à la Performance (French National Performance Support Agency)	DPI	Dossier Patient Informatisé (Electronic Health Record)
ANFH	Association Nationale pour la Formation permanente du personnel Hospitalier (French National Association for the Continuing Education of Hospital Staff)	DREES	Direction de la Recherche, des Études, de l'Évaluation et des Statistiques (Directorate for Research, Studies, Evaluation and Statistics)
ANS	Agence du Numérique en Santé (Digital Health Agency)	DUI	Dossier usager informatisé (Digital user file)
ANSSI	Agence nationale de la sécurité des systèmes d'information (French Network and Information Security Agency)	EHDS	European Health Data Space
ARS	Agence régionale de santé (Regional Health Agency)	eIDAS	Electronic Identification and Trust Services Regulation
ATIH	Agence technique de l'information sur l'hospitalisation (Technical Agency for Information on Hospitalisation)	ENS	Digital health companies
BDT	Banque des Territoires	ETAPES	Expérimentations de télémédecine pour l'amélioration des parcours en santé (Telemedicine Trials for the Improvement of Healthcare Programmes)
CERT	Computer Emergency Response Team	FINESS	Fichier national des établissements sanitaires et sociaux (French National Directory of Health and Social Establishments)
CHU	Centre hospitalier universitaire (University hospital)	GHT	Groupement Hospitalier de territoire (Territorial Hospital Group)
CNDA	Centre National de Dépôt et d'Agrément (French National Centre for Filing and Accreditation)	GRADeS	Groupement Régional d'Appui au Développement de la e-Santé (Regional Support Groups for the Development of eHealth)
CNIL	Commission Nationale de l'Informatique et des Libertés (French National Commission Data Protection Authority)	HAS	Haute Autorité de Santé (French National Authority for Health)
CNS	Conseil du Numérique en Santé (Digital Health Council)	HDS	Hébergement de données de santé (Health data hosting)
CNAM	Caisse Nationale de l'Assurance Maladie (French National Health Insurance Fund)	HFDS	Haut fonctionnaire de défense et de sécurité (Senior Defence and Security Officer)
CNSA	Caisse Nationale de solidarité pour l'autonomie (French National Fund for Autonomy)	HOP'EN	Hôpital numérique ouvert sur son environnement (Hospital Digital Standardisation Programme)
CPAM	Caisse Primaire d'Assurance Maladie (Departmental Health Insurance Agency)	INS	Identité nationale de santé (National eHealth ID)
CPS	Carte de Professionnels de Santé (Healthcare Professionals Card)	LGC	Logiciel de gestion de cabinet (Practice management software)
DCGDR	Direction de la coordination de la gestion du risque (Directorate for Coordinating Risk Management)	LGO	Logiciel de gestion d'officine (Pharmacy management software)
DGE	Direction Générale des Entreprises (Directorate General for Enterprise)	LRM	Logiciel de régulation médicale (Medical regulation software)
DGESIP	Direction Générale de l'Enseignement Supérieur et de l'Insertion Professionnelle (Directorate General for Higher Education and Professional Integration)	MES	Mon espace santé (My health space)
DGCS	Direction Générale de la Cohésion Sociale (Directorate General for Social Cohesion)	OPCO	Opérateur de compétences (Skills operator)
DGOS	Direction Générale de l'Offre de Soins (Directorate General for Healthcare Provision)	PDS	Plateforme des Données de Santé (Health data hub)
DGRI	Direction Générale de la Recherche et de l'Innovation (Directorate General for Research & Innovation)	PSC	PariSanté Campus
DGS	Direction Générale de la Santé (Directorate General for Health)	PSC	Pro Santé Connect
DMP	Dossier Médical Partagé (Electronic Health Record, core technical component of the "Documents de santé" section of Mon espace santé)	GDPR	General Data Protection Regulation
DMSMP	Délégué Ministériel à la santé mentale et à la psychiatrie (Ministerial Delegation for Mental Health and Psychiatry)	RI	Référentiel d'Identité (Identity Repository)
DNS	Délégation Ministérielle au numérique en santé (Ministerial Delegation for Digital Health)	RIS	Radiology Information System
		ROC	Remboursement des organismes complémentaires (Scheme for reimbursement of supplementary healthcare insurers)
		ROR	Répertoire Opérationnel des Ressources (Operational health resources directory)
		RPPS	Répertoire partagé des professionnels de santé (French healthcare professionals shared directory)
		SAS	Service d'accès aux soins (Healthcare access service)
		SESALI	Service européen de santé en ligne (European e-Health Service)
		SGL	Système de Gestion de Laboratoire (Lab management system)
		TLC	Teleconsultation
		TLE	Tele-expertise
		TLS	Telehealth

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Conception, creation and design: **l'agenceverte**

May 2023

