POLITICAL INVOLVEMENT

Maladies rares et
plans de santé publique :
National plan for rare diseases.

➢ Diagnostic error

➢ Limited information

➢ Geographic dispersion

➢ Access to treatment

MINISTÈRE
DU TRAVAIL
DE LA SANTÉ
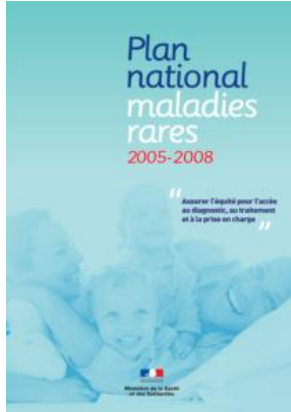ET DES SOLIDARITÉS

Liberté
Égalité
Fraternité

PNMR 1

2004 (05)   2008 (11)

RDs became a public
health issue
131 labelled CRMR
in 120 French Hospitals

PNMR 2

2011   2014 (18)

Structuring of FSMR
9 Hospitals
Work on the establishment
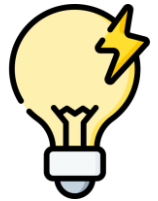of the BNDMR
AP-HP Hospital
Rare Disease Foundation

PNMR 3

2018   2023

4th, July 2018
Third Rare Disease
Plan
(PNMR3)

PNMR 4

MINISTÈRE
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**A
plan
for what ?**

PLAN NATIONAL
MALADIES RARES
2018-2022

Partager l'innovation,
un diagnostic et un traitement
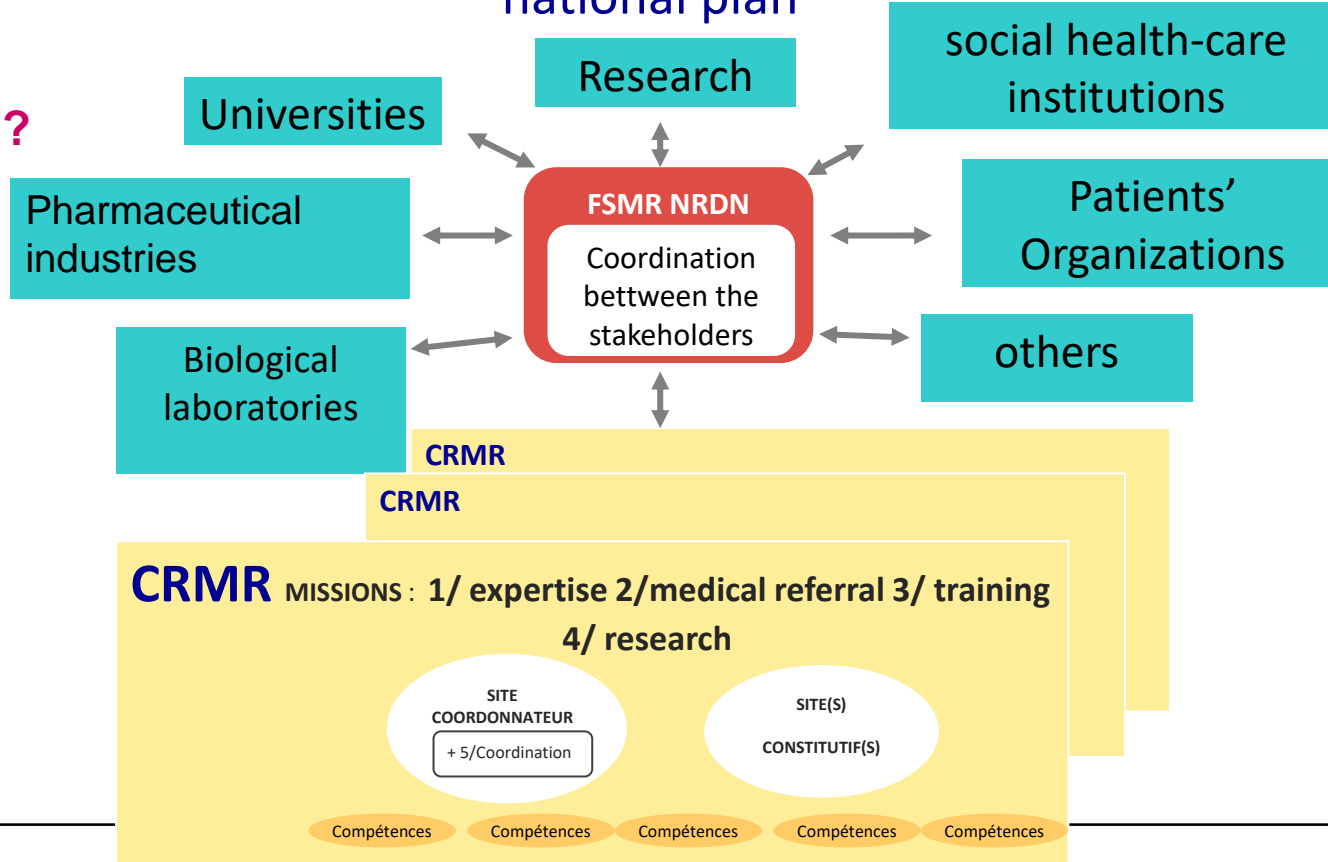pour chacun

maladies rares

- **Make sure each patient receives a faster diagnosis and reduce diagnostic delay, with a quantified objective reduced to 1 year;**

- **Reinforce the structuring of databases in order to increase research potential;**

- **Boost the role of clinical networks to coordinate the actions of the multiple players concerned and support certain key phases, such as delivery of the diagnosis;**

- **Ensure greater clarity of the care pathway for both patients and their families;**

- **Encourage innovation and make it accessible;**

- **Put in place new neonatal screening programmes;**

- **Reinforce France's role in Europe.**

The hospitals :
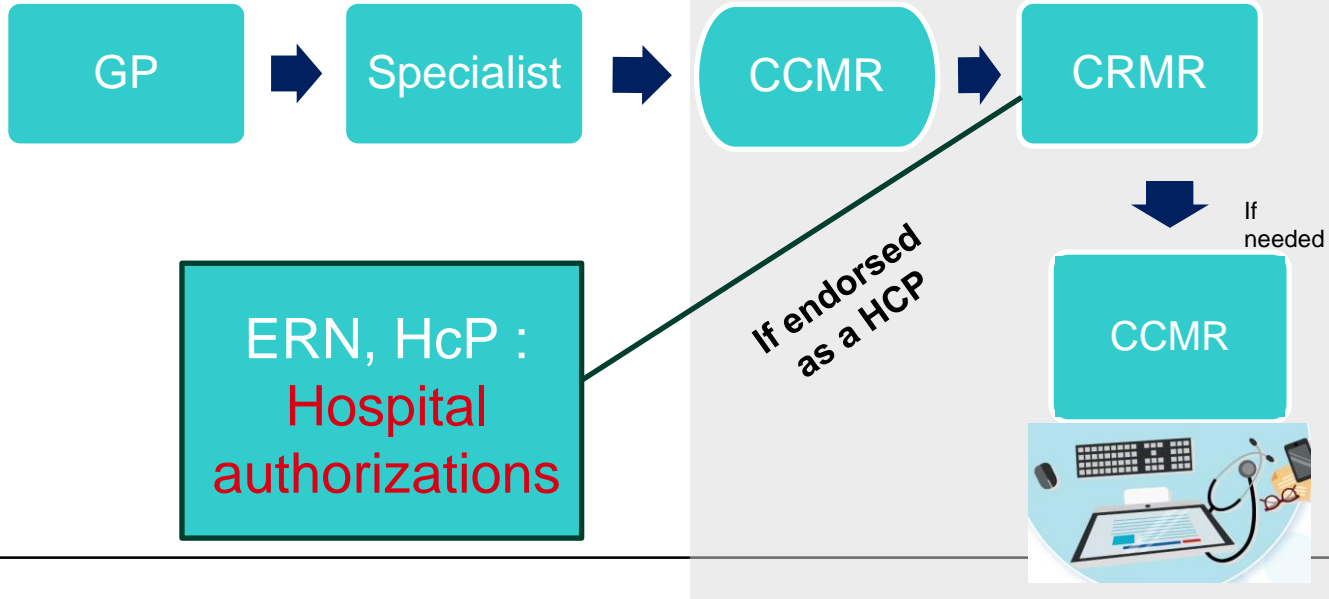## the ecosystem for rare diseases and for the 3rd national plan

A plan with who ?

Universities

Research

social health-care institutions

Pharmaceutical industries

FSMR NRDN

Coordination bettween the stakeholders

Patients' Organizations

Biological laboratories

others

CRMR

CRMR

CRMR MISSIONS : **1/ expertise 2/medical referral 3/ training 4/ research**

SITE COORDONNATEUR

+ 5/Coordination

SITE(S) CONSTITUTIF(S)

Compétences   Compétences   Compétences   Compétences   Compétences

Gathering in a single database one of the largest rare disease cohort in the world: **the French national rare disease registry data**

BNDMR
Banque Nationale de Données
Maladies Rares

▶ bndmr.fr

Thibaut Pichon, Claude Messiaen, Louis Soussand, Céline Angin, Nabila Elarouci, Anne-Sophie Jannot
Banque Nationale de Données Maladies Rares – BNDMR (AP-HP), Paris (France) contact.bndmr@aphp.fr

The French national rare disease registry data
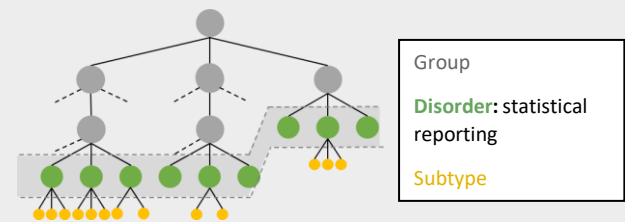*Banque Nationale de Données Maladies Rares (BNDMR)*

The BNDMR was created as part of the second National Plan for Rare Diseases. Its aim is to collect from all expert centers on rare diseases in France a Minimal Data Set (MDS), either from a web app (BaMaRa) or from the electronic health record (EHR). In the end, these data are sent to the BNDMR data warehouse to allow national analyses.
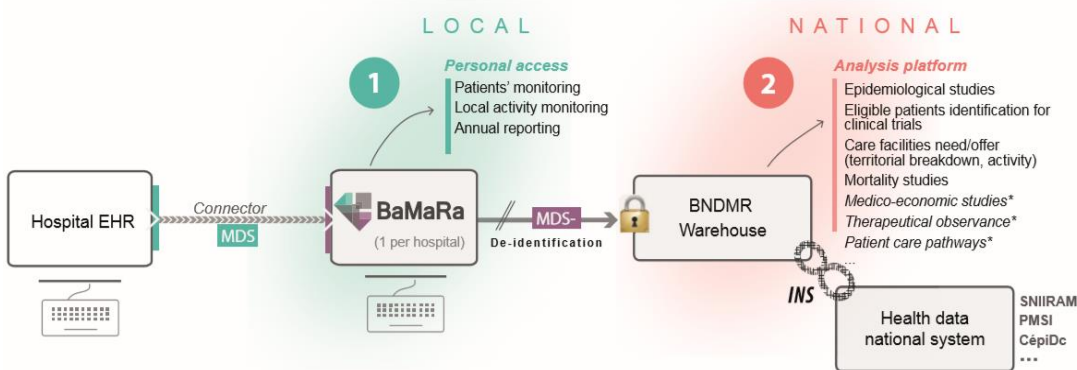
Rare diseases coding in the BNDMR
To identify the patients' rare disease(s), the BNDMR uses the Orphanet nomenclature (July 2021 version).
Each clinical entity is assigned a unique identifier that is stable over time: the ORPHA code. ORPHA codes are organised into three classification levels: disease groups, diseases and disease subtypes.

LOCAL

Personal access
1
Patients' monitoring
Local activity monitoring
Annual reporting

Hospital EHR — Connector MDS — **BaMaRa** (1 per hospital) — MDS De-identification — BNDMR Warehouse

NATIONAL

Analysis platform
2
Epidemiological studies
Eligible patients identification for clinical trials
Care facilities need/offer (territorial breakdown, activity)
Mortality studies
Medico-economic studies*
Therapeutical observance*
Patient care pathways*
...

INS

Health data national system

SNIIRAM
PMSI
CépiDc
...

Group

Disorder: statistical reporting

Subtype

Orphanet nomenclature classification levels representation

BNDMR

Direction générale de l'offre de soins

between october 2018 and april 2023:
from 950 to 2191 centres deployed (+130%)
Patient files: from 145,000 to 1,360,000 files

- **Wandering and diagnostic impasse:** The BNDMR now offers a precise epidemiological view of patients in wandering or impasse via the item concerning diagnostic certainty.

- **Indicators useful for public health:** Various indicators, particularly for public health, may be derived from this, such as the exhaustive quantification for all rare diseases of the time between the first signs and inclusion in the centre.

-**Transparency:** These elements are public and are available on the page dedicated to the "Diagnosis Observatory" on the Ministry's website.

- **Complementary data collection, clinical cohorts in BaMaRa focused on patients in diagnostic error:** For certain diseases, an exhaustive review of the files of patients in diagnostic error or impasse has been carried out, with a view to completing a set of complementary data

- **The Minimum Treatment Data Set:** a service to facilitate the evaluation of therapeutic means in real life via a unified tool throughout the country (useful for early access, compassionate care, post-registration studies, payment for performance, and specific studies),

see https://www.has-sante.fr/jcms/r_1500918/fr/acces-precoce-a-un-medicament

"New: PUT RD BaMaRa".

Real World Evidence - RWE

RWE / **ERN**

Link with existing data? Complementary but not substitutable to data from conventional clinical studies

Where do they come from? - Early access programmes - Patient monitoring registers - CPMS ?

Advantages? They overcome some of the limitations of clinical studies: low patient recruitment, transferability of data, length of follow-up.

RWE allows health authorities and payers to

- Obtain **additional information** after bringing to market;

- **Re-evaluate the benefit** of a product, clarify its place in the therapeutic strategy;

- Enable the implementation **of innovative financing models** or the **product price revision** ;

- Obtain a marketing authorisation in a niche indication in the case of a **use outside the scope of the marketing authorisation** ;

- Have a **more global understanding** of the care pathway of rare disease patients.

Infrastructure for data sharing across the EU
## with the development of European-wide patient registries

ERNs

❖ An extension of national healthcare systems

❖ To provide an additional dimension of EU-wide networked care in addition to that provided at national level

❖ A paradigm shift in their respective fields of clinical excellence but also made important steps towards a sharing of know-how around rare diseases between a large number of medical specialities across the EU in a short time

❖ Concerted actions from the very first days of the COVID pandemic are probably the best proof of how this has worked.

WP8 Specific objectives JARDIN / ERN Coordination

- To develop solutions allowing for semantic and technical interoperability amongst HCPs for national and European it-tools
- To manage the diversity within and between national health systems and ERNs by design
- To develop a solution for describing the rare disease health care system and ERN/NRN structures
- To develop solutions to overcome organizational and legal barriers for accessing data
  - To demonstrate these solutions through a set of use cases.
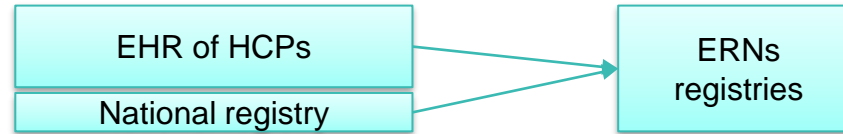
- ▶ Agile implementation of WP8 deliverables
  - ▪ 1) Data collection/circuit
  - ▪ 2) Technical solutions
  - ▪ 3) Standard agreement
  - ▪ 4) Data reusing
- ▶ 4 pilot ERNs : EpiCARE, Euro-NMD, ERN-RND and ITHACA
- ▶ Call for volunteers among HCPs involved in the 4 ERNs and the corresponding National Health Data Spaces (NHDS) to ensure that selected HCPs sufficiently represent the variety in Europe

Key points identified during initial discussions
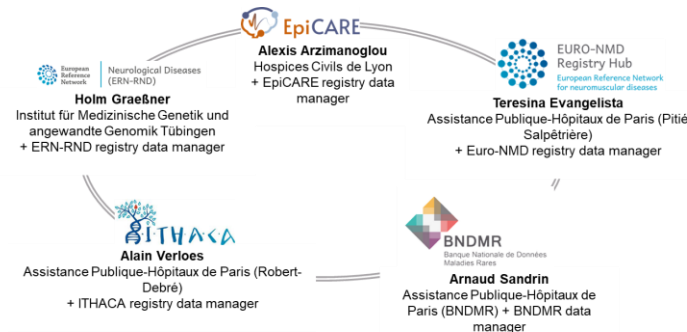
Regulatories aspects

Technical aspects

Patient consent
Food for thought
o Implementation of a single
consent model throughout
Europe
o Dynamic e-consent

Registries infrastructure
o REDCap seems to be mainly used
   o Others infrastructures:
   depending on surveys' results

Interdependence

Data reuse
o FAIRification : making BaMaRa
data available/exposable
or
o Transfer of data to ERNs
registries

Data
o Format of the data to be
transferred
o Data from the Minimal Data Set
(mapped with CDEs) and later,
more specific data

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Égalité
Fraternité*

engagé(e)s
à vos côtés.