

Talking Interoperability

In Focus | France



Digital
Convergence
USP2030

Agenda

12:00–12:15

Welcome

12:15–13:00

Presentation

13:00–13:30

Discussion

13:30–13:55

Audience Q&A

13:55–14:00

Closing remarks



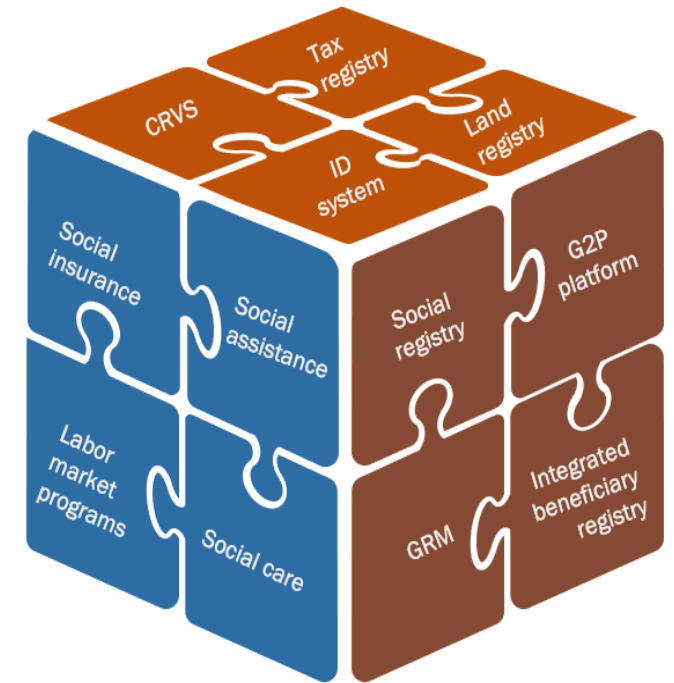
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The Digital Convergence Initiative (DCI)

A joint effort by USP2030 members and non-members, governments, development partners and private sector towards creating a harmonized and interoperable digital ecosystem for social protection

Building consensus-based standards for interoperability to

- **foster an ecosystem for innovation** by ICT solution providers to build products that are interoperable, easy to use, integrate, maintain and scale
- **reduce time and costs** of developing solutions at the country/program level
- enable programs and countries to **mix and match different components** from different suppliers
- **ensure that systems are future-proof by design**, regardless of current levels of policy and information systems maturity



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Talking interoperability

A monthly dialogue series by the DCI to facilitate in-depth technical conversations around integrated and interoperable SP information systems across countries

Deep dive into one country-level system per session to...

- share the technical nuts and bolts of how agencies have designed their social protection information systems for interoperability
- understand how agencies have tackled the major challenges to interoperability.
- brainstorm potential solutions to remaining bottlenecks



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Recordings of past sessions available

The image shows two browser windows. The left window displays the website <https://sp-convergence.org/archive-past-events/>. It features the Digital Convergence USP2030 logo and a 'Past events' section with the following list:

- [Dialogue series: Session 3 - Turkey](#)
- [Dialogue series: Session 2 - Belgium](#)
- [Dialogue series: Session 1 - Karnataka State, India - Kutumba](#)
- [Applying the Principles for Digital Development in social protection](#)
- [Open source solution workshop](#)

The right window displays <https://socialprotection.org/webinar-series#talking-interoperability>. It features a navigation bar with 'Home', 'Discover', 'Connect', 'Learn', and 'Share'. The main content is titled 'Talking interoperability - Dialogue Series' and includes the following text:

The "Talking interoperability" dialogue series is organised by the Digital Convergence Initiative (DCI). These meetings aim to facilitate in-depth technical conversations around designing for interoperability in the social protection sector. By bringing together digital social protection and technology experts from government agencies, software vendors, system integrators and international organisations, they aim to promote peer-based learning and problem solving.

Webinars

1. [Kutumba, India \(Karnataka state\): Breaking data silos for inclusive social protection](#)
2. [Cross Road Bank for Social Security, Belgium: The Belgian experience achieving social sector interoperability](#)
3. [Integrated Social Assistance Information System \(ISAS\), Turkey: Creating the Digital Social Assistance System](#)

Organisers

Digital Convergence USP2030

[Past Events – digital convergence initiative \(sp-convergence.org\)](https://sp-convergence.org)

<https://socialprotection.org/webinar-series#talking-interoperability>



Introductions

Presenter



Maria Kitanova

Director of IT Landscape
and Expertise,
Information Systems
Department, CNAV

Discussants



Andres Chamba

Social Protection Policy
Programme Officer, World
Food Programme



Sudhanshu Jain

Associate Director,
PricewaterhouseCoopers
Private Limited

Moderator



**Bonaparte Ruhamy
Byuma**

Planning and Research
Division Manager, Rwanda
Social Security Board



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Bonaparte Ruhamy Byuma

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Interoperability of Social Security systems of France

Data exchange systems and data platforms operated by CNAV



The Exchange Management System (DGE)

- The main principles
- Some figures for 2021
- Types of exchanges

THE SECU API

- The context and objectives
- Example of a use case

Which data for which platforms for streamlining the Social security service

Data exchange systems and data platforms operated by CNAV: Context



What is the CNAV?

National Old-Age Insurance Fund (CNAV) of France is in charge of :

- France's largest pension scheme
- Founded in 1945 and based on the principle of solidarity between the generations
- Pension contributions paid into the system by workers and employers finance the pensions paid out to retirees each month

Key figures :

- 15 K employees, 286 reception centres
- 135 billion € distributed to 15 million persons in 162 countries
- 20 million contributors
- 650 K new retirees per year

Data exchange systems and data platforms operated by CNAV: Our Role



Keeping records of employees: employment histories and data

- As soon as someone starts working in France, an individual retirement insurance account is opened in his/her name.
- The details of salaries and contributions are added to the account every year, and soon every month, based on the information contained in the social security declarations filed by employers, and henceforth by the nominative social declaration (DSN).
- These data are stored in databases operated by CNAV.
- These data can be used and transmitted to our partners according to legislative regulations or specific agreements.

Helping insurees prepare for retirement:

- Insurees can view their employment history records free of charge at any time on www.lassuranceretraite.fr.
- The employment history record is an itemized account of all of the employee's salaries and income on which contributions were levied.
- The employment history record contains the information used to calculate the employee's pension when he/she retires.

Data exchange systems and data platforms operated by CNAV: Our Role



Ensuring timely payment

- Pensions are paid out on a monthly basis.
A file is kept on every insuree throughout their retirement, so that any changes in status or new rights can be taken into account.
- Retirees can access a range of services on the www.lassuranceretraite.fr website, including payment receipts, tax statements, and viewing payments.

Recognized statistical and legal expertise

- CNAV is actively involved in technical and financial evaluations of the French pension system in the short, medium and long term.
- CNAV staff work closely with French government departments to draft the annual social security budget, as well as legislation and regulations relating to pensions.
- To publicize its work, CNAV posts a quarterly electronic newsletter called Cadr'@ge, and has a website dedicated to studies, research and statistics.
- Through its <https://data.cnav.fr> site, it is implementing an open data, accessible to all.

Data exchange systems and data platforms operated by CNAV: Our Network



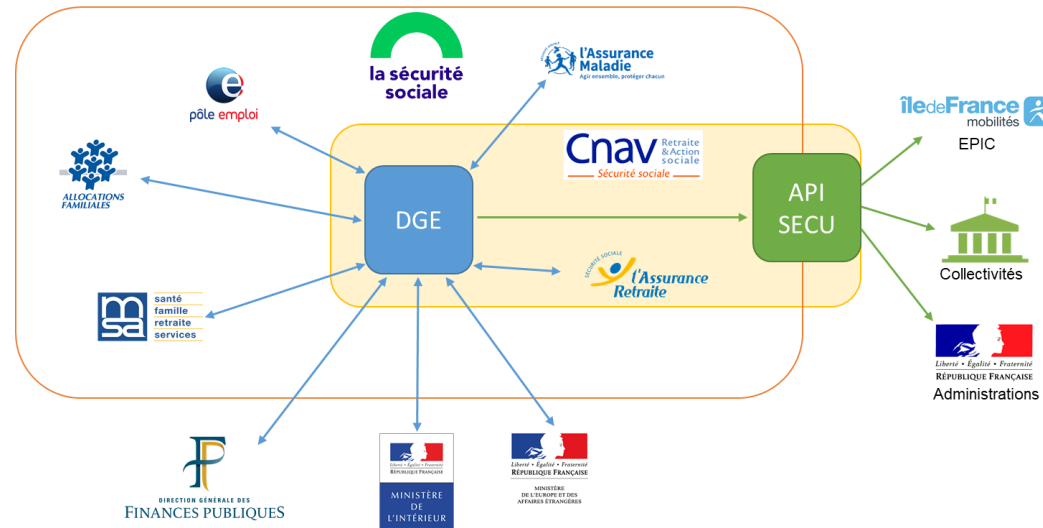
Pensions are managed by regional [Retirement Insurance and Occupational Health Offices \(CARSAT\)](#) in metropolitan France [General Social Security Offices \(CGSS\)](#) in the overseas Departments, and the [Social Security Office \(CSS\)](#) in Mayotte
In addition to its national coordination role, CNAV directly manages pensions in Île-de-France.

- CARSAT in France: 15
- Reception centres in metropolitan France: 286
- Branches in CGSS/CSS: 11

www.lassuranceretraite.fr: more than 12 million personal accounts to date

Data exchanges within the social sphere

The CNAV's role as operator



By delegation from the Social Security Department (Direction de la Sécurité sociale - DSS), the CNAV acts as the operator for the implementation and operation of the DGE and API-SECU solutions.

These two systems play a central role in the exchange of data between organizations in the social sphere, but also with the French administrations.

The Exchange Management System - DGE

Functional principles



The DGE serves as a platform for the dissemination of business data based on a "Catalogue" of partners and services. Each service corresponds to a specific exchange need.

In order to guarantee the business follow-up and coordination between the partners using a service, an organisation positions itself as "Referent" for this service.

The governance of the scheme is ensured by representatives of each of the social security bodies and the DSS. To access the DGE, a partner must:

- Sign a DGE agreement
- Contractualize membership of a service

The Exchange Management System - DGE Usage statistics in 2021



The DGE, in a few figures for the year 2021:

- 40 Services
- 277 memberships
- 21,640 files issued
- 11,231,000 messages sent
- 143,630,000 Web Service calls routed

The platform is open 24/7; the guaranteed availability rate is:

- 99% in office hours
- 95% at weekends, holidays and nights

The Exchange Management System - DGE

Types of exchanges

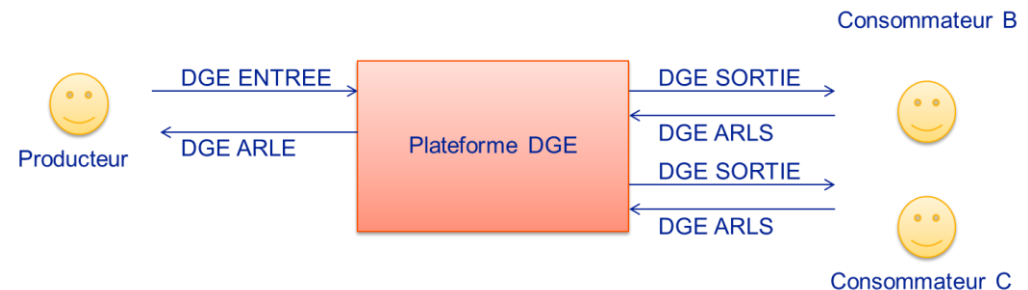


File distribution

It allows a producer to push a file to 1 to many recipients, without waiting for a response other than whether the file has been routed and to which recipient(s) it has been routed. The business data received in the producer file is disseminated to consumers in its entirety, without modification. The most widely used type, as it can carry a large volume of data.

Example:

In the context of the dissemination of monthly income, the DGE takes charge of the issue of 1,000 to 1,500 files generated by the Reference IS (monthly resources data - dispositif ressources mensuelles (DRM)) each month. The DGE provides the DRM with a guarantee of delivery of the files entrusted to it.



The Exchange Management System - DGE

Types of exchanges

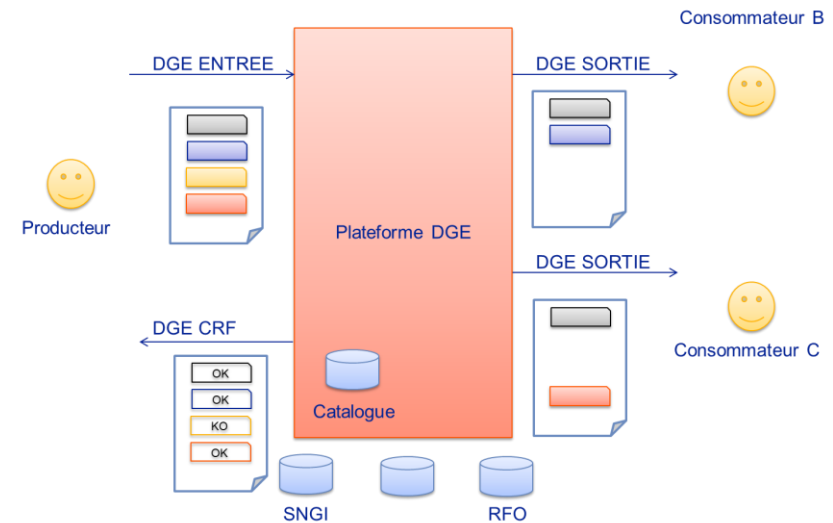


Broadcasting message

It allows a producer to push a set of messages to one or many recipients, without waiting for a response other than to know whether the messages have been picked up and to which recipient(s) they will be routed. The producer has the possibility of depositing messages by file or in real time.

Example

When an insured person applies for a pension online, the service will submit the application to the DGE in real time, specifying the recipient organizations. The DGE will aggregate the requests received and transmit a daily file to each of the targeted organizations. The requests are then handled by the organizations. In 2021, 1,184,000 applications were submitted.



The Exchange Management System - DGE

Types of exchanges

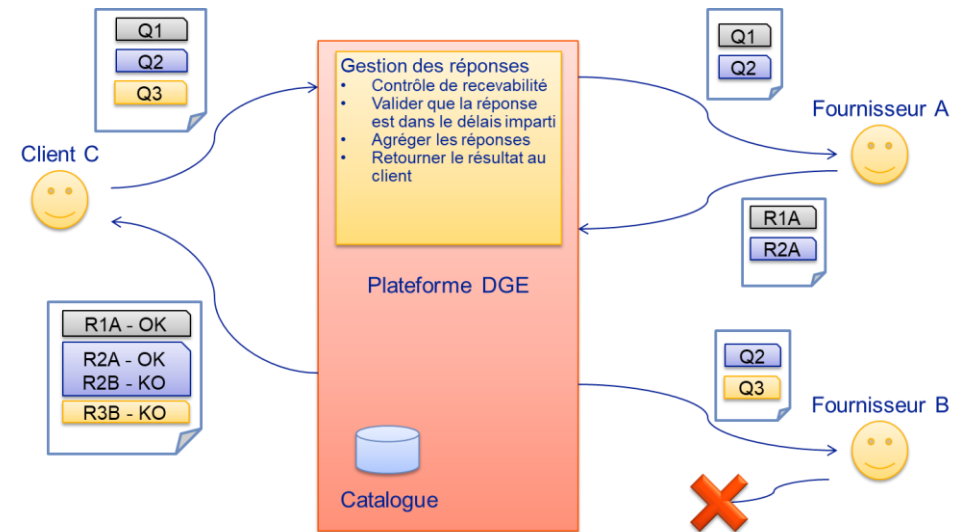


Real time acquisition

It allows a customer to request 1 to many suppliers, for a set of messages, and obtain a response from the DGE within a guaranteed timeframe, even if one of the suppliers is unable to respond.

Example

The “Info Retraite” portal offers a service to retired insured persons, indicating the amounts received from each of the schemes to which they have contributed. The service asks the DGE to collect information in real time from the various pension schemes. This allows, in one call to the DGE, to obtain an aggregated response from several data providers, in a guaranteed short time (<1s).



The Exchange Management System - DGE

Types of exchanges

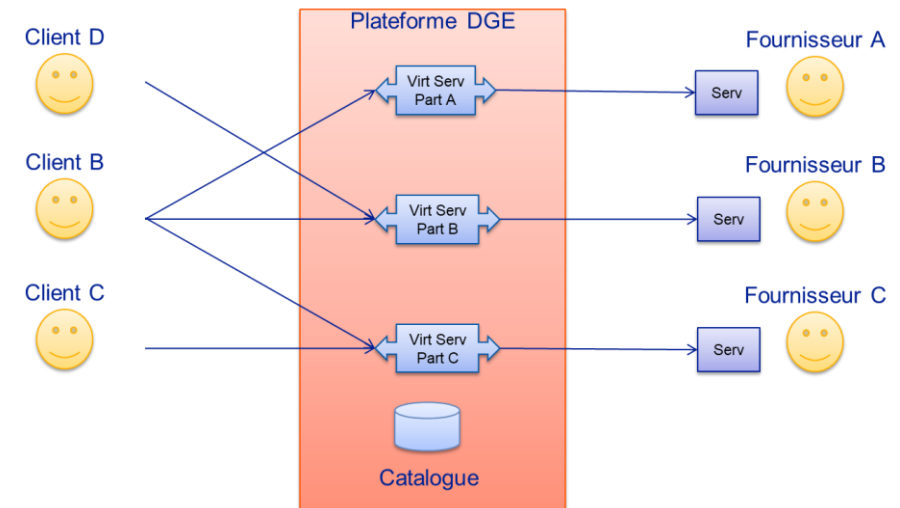


Real time synchronous exchanges

- A provider exposes a SOAP or REST Webservice through the DGE.
- One or more customers can access the supplier's service by requesting the DGE platform.

Example

The Career Repository (RGCU) provides a real-time service offering for its partners. In order to facilitate and streamline meetings with partners, the services are displayed on the DGE. The DGE also allows for the monitoring of the consumption of services.



API SECU

API Management solution for the social sphere



Context

The idea of creating an API Management solution for the social sphere emerged from several sources.

- The need to meet the requirements of the digital law for data exchange between public service institutions
- Government commitments to digitize 100% of procedures by 2022

The aim is to simplify the procedures for users, in conjunction with "tell us once".

The API SECU was born

API SECU

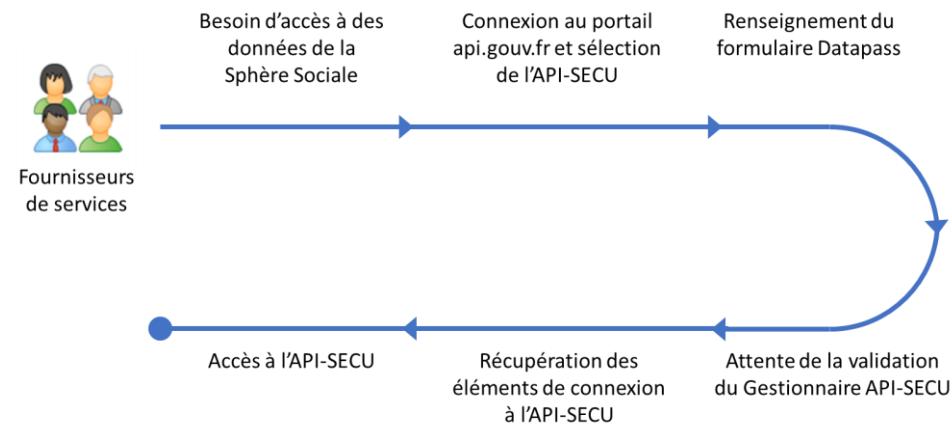
API Management solution for the social sphere



Objectives

Organisation: Automating access to data exposed by the SECU API

- Redesign of data access processes
- Empowerment of service providers in the process of requesting access to data



API SECU

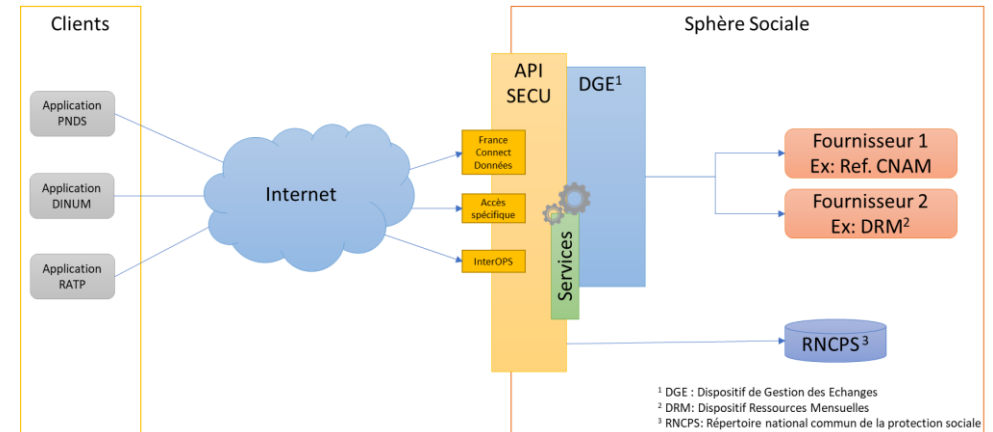
API Management solution for the social sphere



Objectives

Technical: Allow access to data while respecting the current state of the art

- Data exposure based on REST principle with JSON format
- Security of data access through the OAuth2 standard
- Making documentation available on a developer portal
- The possibility of using a sandbox for the development of client applications



How to meet these 2 objectives → Implementation of an API Management solution

API SECU

API Management solution for the social sphere



The SECU API is part of the legislative framework imposed by "Tell us once", opening up the availability of data to administrations (L. 100-3-1 of the code of relations between the public and the administration).

Strategic governance is led by the DSS in partnership with the organizations in the social sphere. The CNAV, as operator, provides support to clients in the use of the system.

The platform is open 24/7; the guaranteed availability rate is:

- 99% in office hours
- 95% at weekends, holidays and nights

API SECU

API Management solution for the social sphere



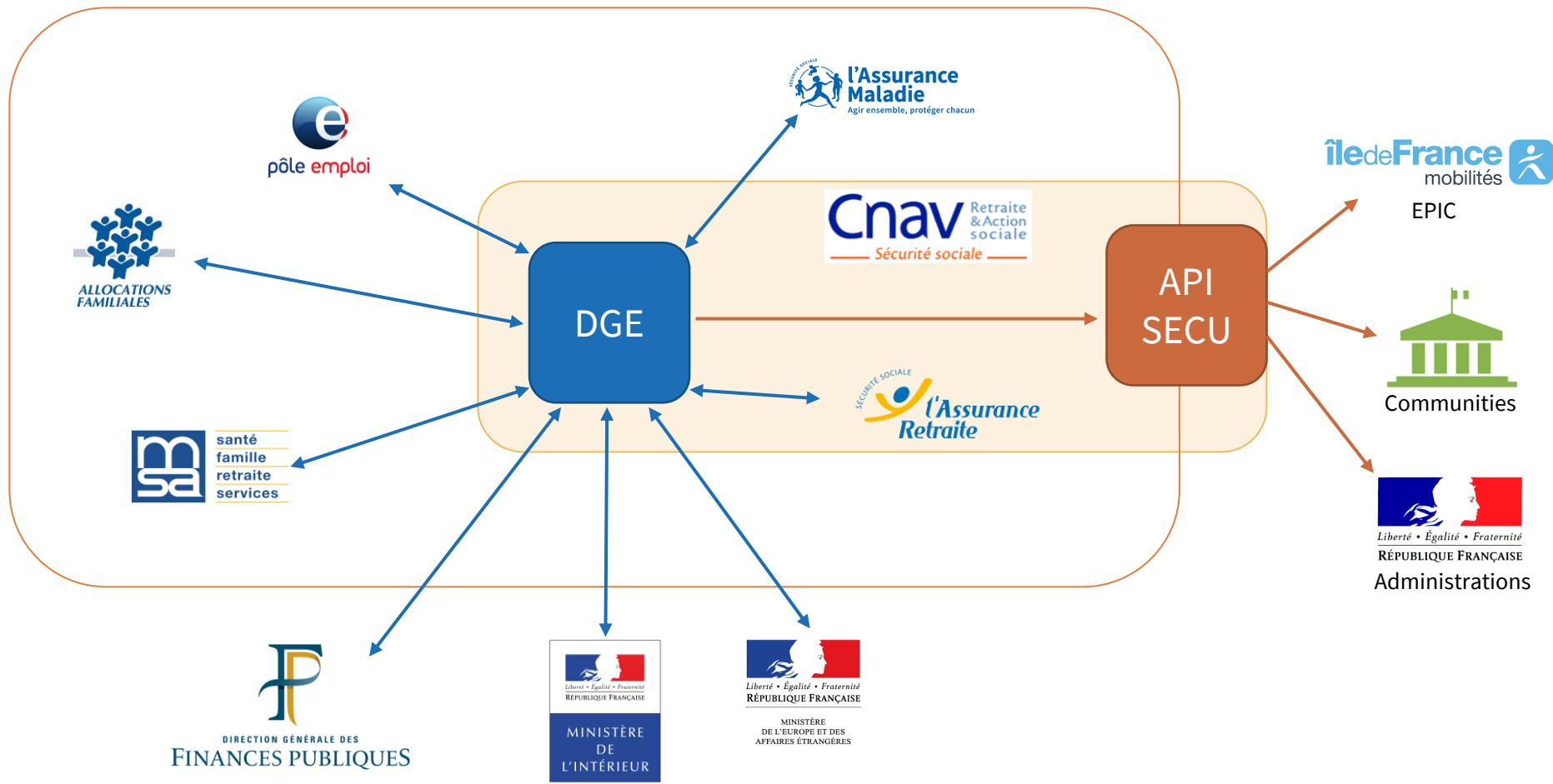
One of the use cases

Specific tariffs linked to social rights:

- The transport authorities offer their users specific tariffs. The calculation of these fares takes into account different information about the user, including the social benefits they receive.
- This information can be obtained through the use of APIs.
- Access to certified data via API accelerates the total dematerialization of the process, facilitates the processing of files and reduces the risk of errors and declaration fraud.

Data exchanges within the social sphere

The CNAV's role as operator

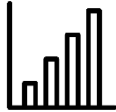


Which data for which platforms : RGCU



RGCU = Répertoire de Gestion des Carrières Unique (Single Career Management Directory) – **Into production in 2019**

- The 3 temporalities of the RGCU
- During the career
 - While the application is being processed
 - During retirement



2020

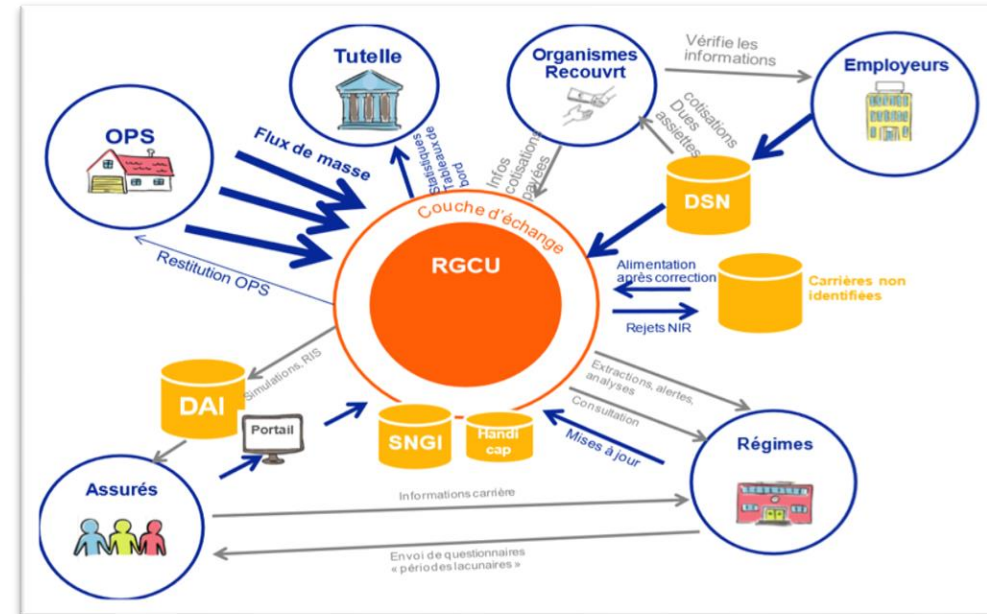
Insured: 80,000,000
Career components: \$4.5 billion
Users: over 70,000
Project: 6 years of work – 120,000 d/h

The RGCU



The main actors

- The insured
- The pension plan
- The employer
- The collection agency
- The social welfare organization



Key figures on the progress of the RGCU:

- Progressively, the career data of insured persons in the 42 schemes should be loaded into the RGCU
- To date the platform contains the data of the insured persons of the general scheme and the scheme for clerks and notaries (90%), and the mandatory supplementary pension scheme.

Which data for which platforms: DRM



DRM = Dispositif de Ressources Mensuelles (Monthly Resource Device) – Into production in 2019

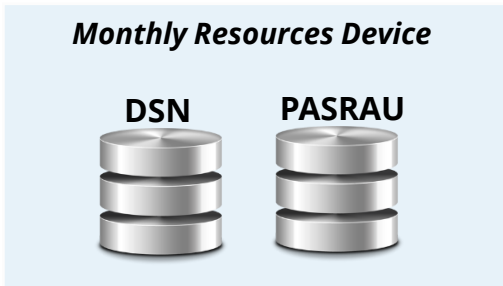
Core functions
 Platform that makes available the resources of individuals, which serve as a basis for calculating social benefits

2 modes of interrogation :
 - Real-time unitary API
 - Subscription for mass return monthly or periodically

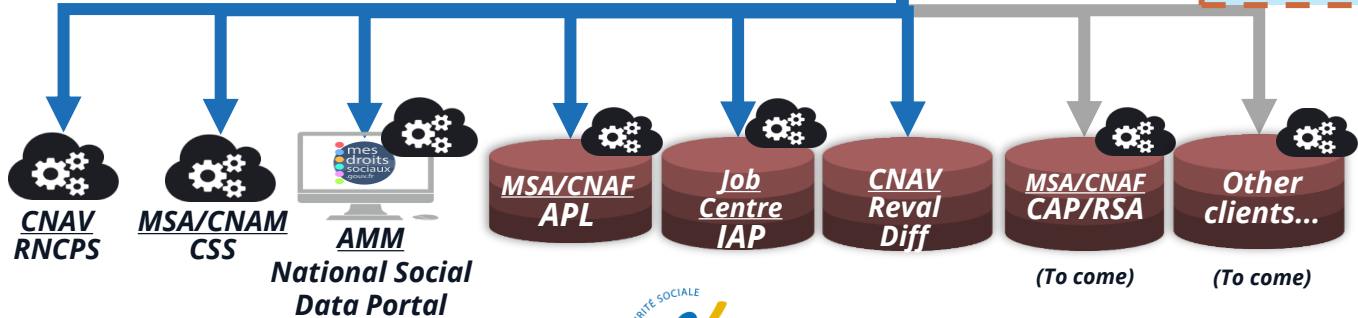
DSN: Individual salary data declared by employers and used as a basis for the payment of social contributions and the calculation of certain social benefits

PASRAU: Data that serve as a basis for the calculation of income taxes payable by the tax authorities and deducted directly from wages

BLOCK 3 NSD



The DRM platform is maintained and operated by CNAV for all the following clients / social security organisations:



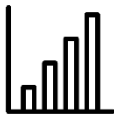
Which data for which platforms: DRM



DRM: Use cases

Calculation of housing allowances by the Family Allowance Funds without requesting proof of income from applicants: Previously calculated on the basis of declared income for the year N-2; now calculated on an ongoing basis with monthly updates of resources directly by the DRM

Calculation of survivor's pensions by the pension funds (all pension schemes) without requesting supporting documents from widows/widowers directly by the DRM (implementation planned for end of 2022)



2021

Individual blocks received: 95 million

- PASRAU: 69 million
- DSN: 26 million

Amounts stored per month: between 800 million and 1 billion

Return services: 5 active and 6 in progress (2 inactive)

Mass hits per month: 19 million

Unit visits per month: 11 million

Thank you

Make sure to answer our survey which will appear on your browser, and join us for the next sessions!

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