



Mapping broadband infrastructures and services

Gaspard Férey - Margaux Tandy - ARCEP

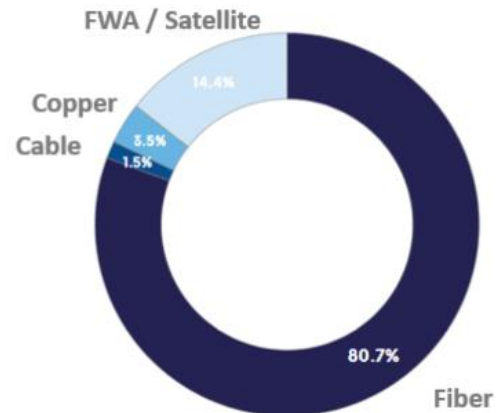
November 2023

Mapping broadband infrastructures and services

1. French context
2. Data driven regulation
3. A map project for fixed connectivity :
maconnexioninternet.fr

French context

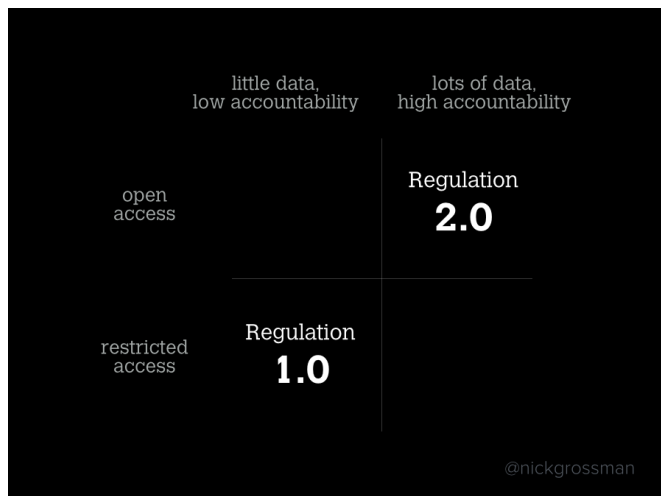
- ❑ Full Broadband coverage at the end of 2022
- ❑ FttH as French main Broadband technology : **Generalization by 2025**
- ❑ **End of copper network by 2030** (the historical main technology)
- ❑ Fiber is the only expending wire technology
- ❑ Our approach to data is **user-oriented** : Focus on the eligibility of premises rather than the infrastructure



Best broadband technology 2023 S1

Data driven regulation

A theoretical framework



Regulation, the Internet Way, Nick Grossman, 2015

Three main objectives

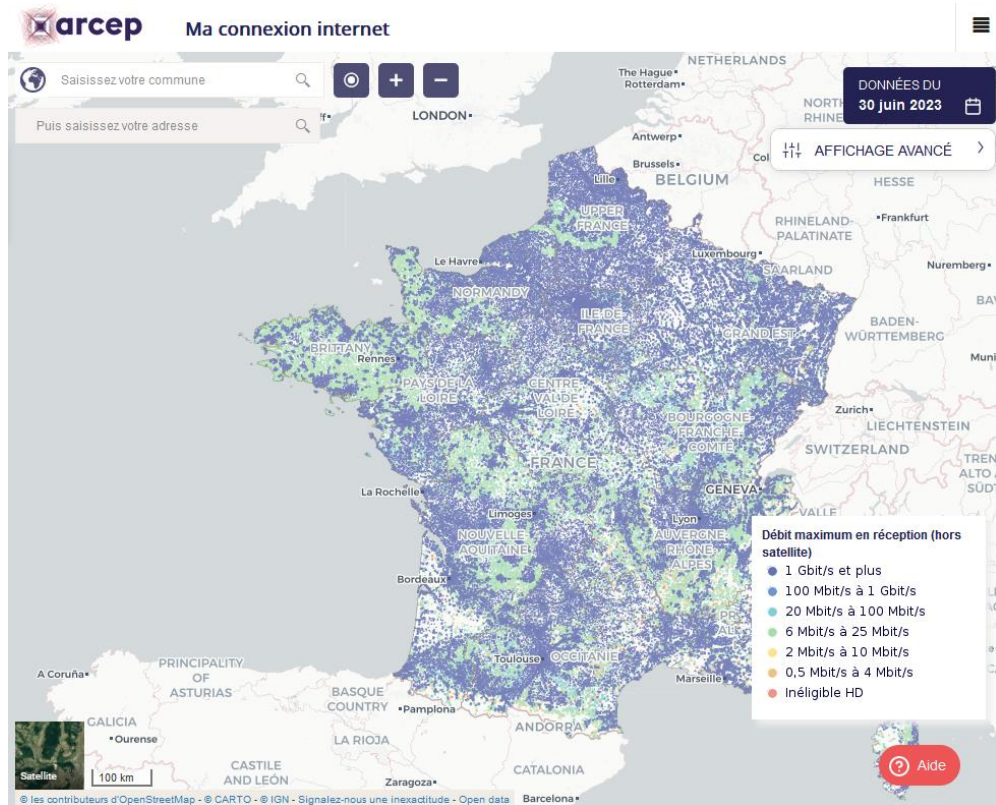
- ❑ **To empower all users** (end-users, private sector, public actors, associations, academics, civil society, tech start-ups, etc.)
 - with accurate, detailed and tailored information
 - with a voice to be heard
- ❑ **To refine the regulatory tools** to rely on the analysis of the increasingly rich mass of information available
 - allows to detect weak signals and systemic issues
 - accelerates the regulation process and make it more targeted and efficient
- ❑ **To steer the market** by creating appropriate incentives
 - stimulates competition on both price and QoS
 - encourages innovation, resilience and sustainability and overall investment

A map project for fixed connectivity

maconnexioninternet.arcep.fr

Speed map at **address level**

- **Interactive map** (overseas incl.) with a search engine that allows to explore eligibility **at the address level**
- Displays all available **internet service providers**, eligible **technologies**, theoretical **max internet speeds**

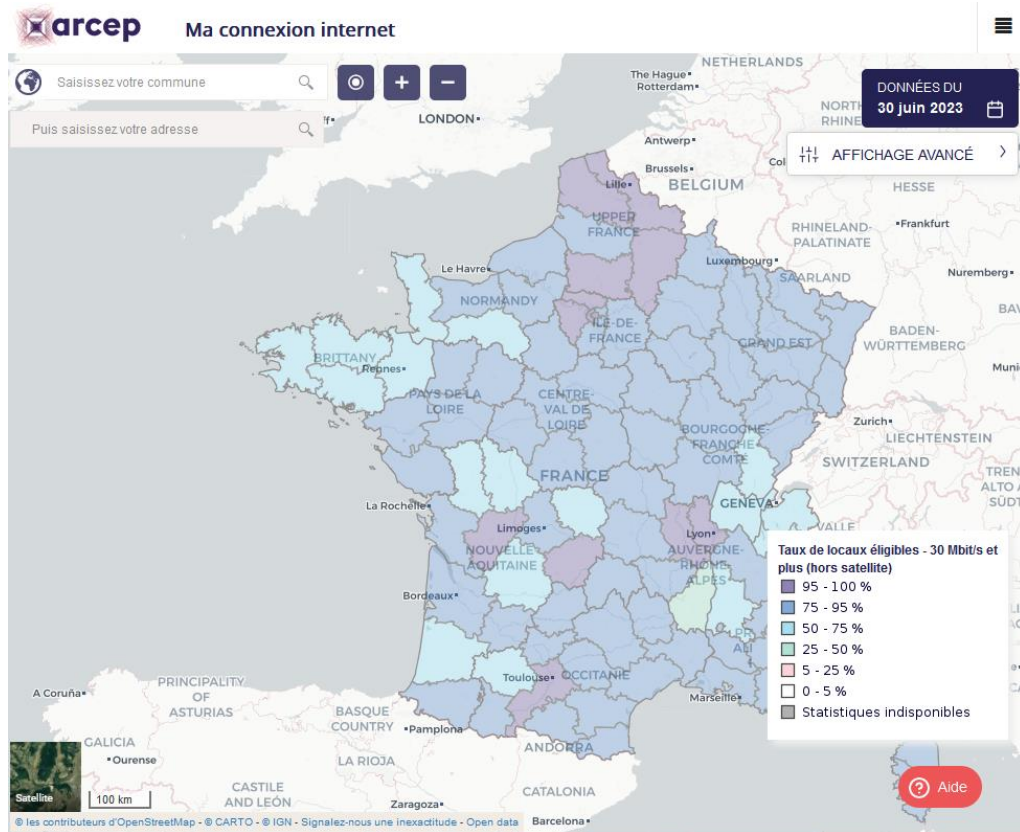


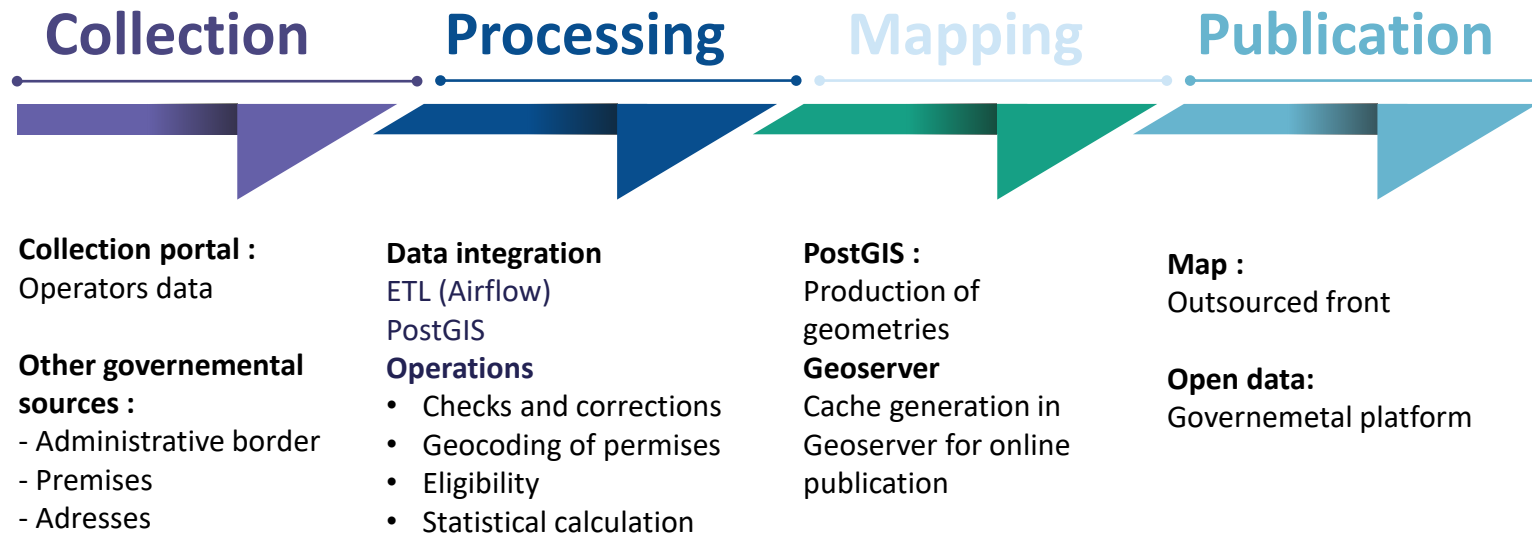
A map project for fixed connectivity

maconnexioninternet.arcep.fr

Map of statistics **by administrative strata**

- Displays of aggregated **coverage rates** of a technology or a **speed level**
- Enables **local authorities** to make accurate diagnoses and contributes to the definition and updating of their digital strategy





In practice: main challenges

Buildings / adresses repository and premises count for statistics : trust only one input with the risk of missing informations or combine many and assume complexity

Mapping performance : dilemma between fluidity and storage use. Private or open source solutions

Maintain reliable open data during the time and despite evolutions

Automate checks and corrections that are still done manually

In practice: main challenges

Creating the environment that enables the normalization of data's production and sharing, between actors in the sector, is a prerequisite of **data driven regulation**

Ensure adequate powers to collect and publish data of the regulator through legislation:

- Format
- Transmission method
- Uses

Include market's actors :

- Legal evolutions are preceded by public consultations
- Dedicated working groups involving the operators and the regulator

Data stewardship and governance

Setup and guide the data-driven workflows

- a dozen *data analysts* in business units
- newly acquired skills and experience:

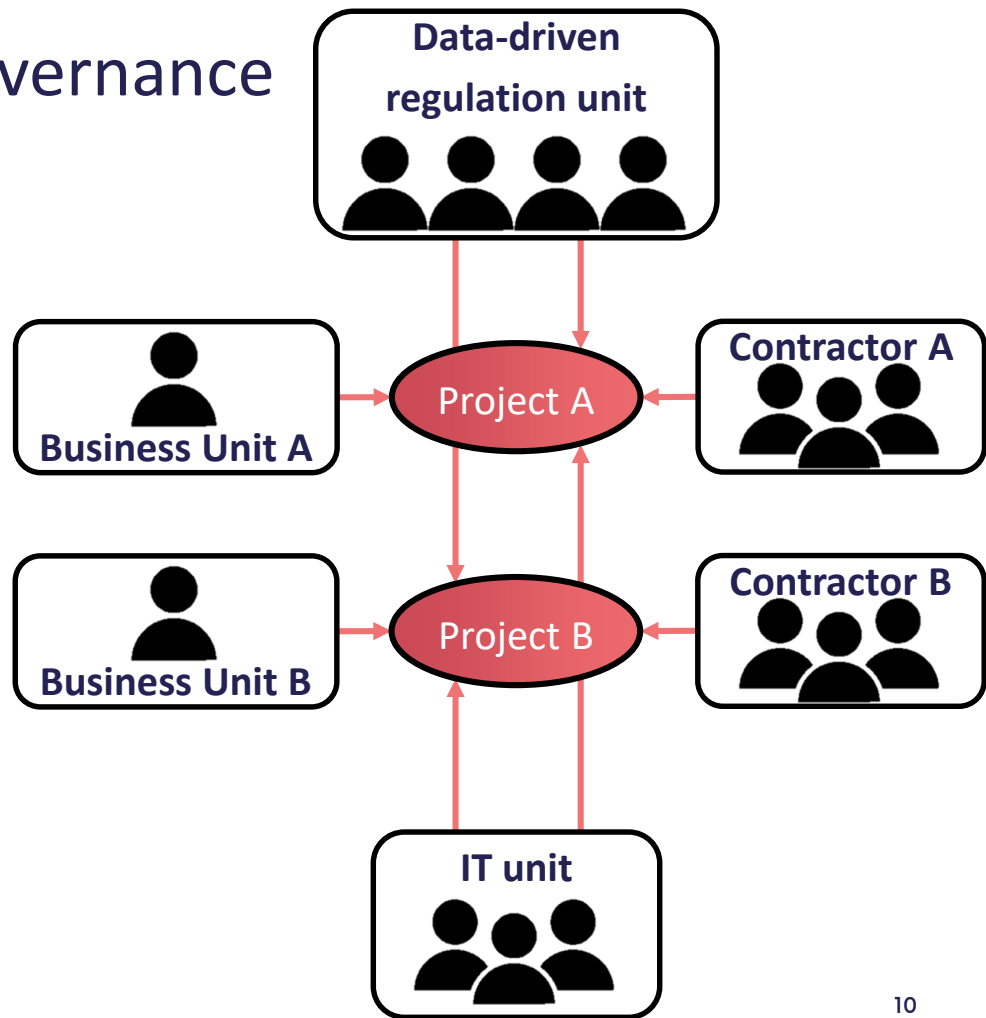
Data storing, processing, analysis, representation, UI/UX, website development, hosting (Unix) and administration, etc.

Provide an adequate toolbox

- dedicated infrastructures and resources: data processing and visualization solutions, dashboards
- automatisations of processes, scripting
- easy access to the information (database, file system, documentation)

Animate the data-driven regulation

- foster strategic thinking
- ensure uniform and coherent technical choices
- champion Arcep's views and ambitions



Thank you
for your
attention !

