



KEY INSIGHTS INTO FRANCE BUILDING SECTOR: DATA GAPS AND OPPORTUNITIES

ABOUT THE OBSERVE PROJECT

The OBSERVE project maps existing datasets, identifies missing information and proposes practical actions to improve the building data ecosystems.



ROLE OF BUILDING DATA

Building data is essential for effective decision-making in the French building sector. Enhancing data availability and addressing gaps is critical to facilitate informed decisions for renovation policies, investment needs and compliance with EU directives.



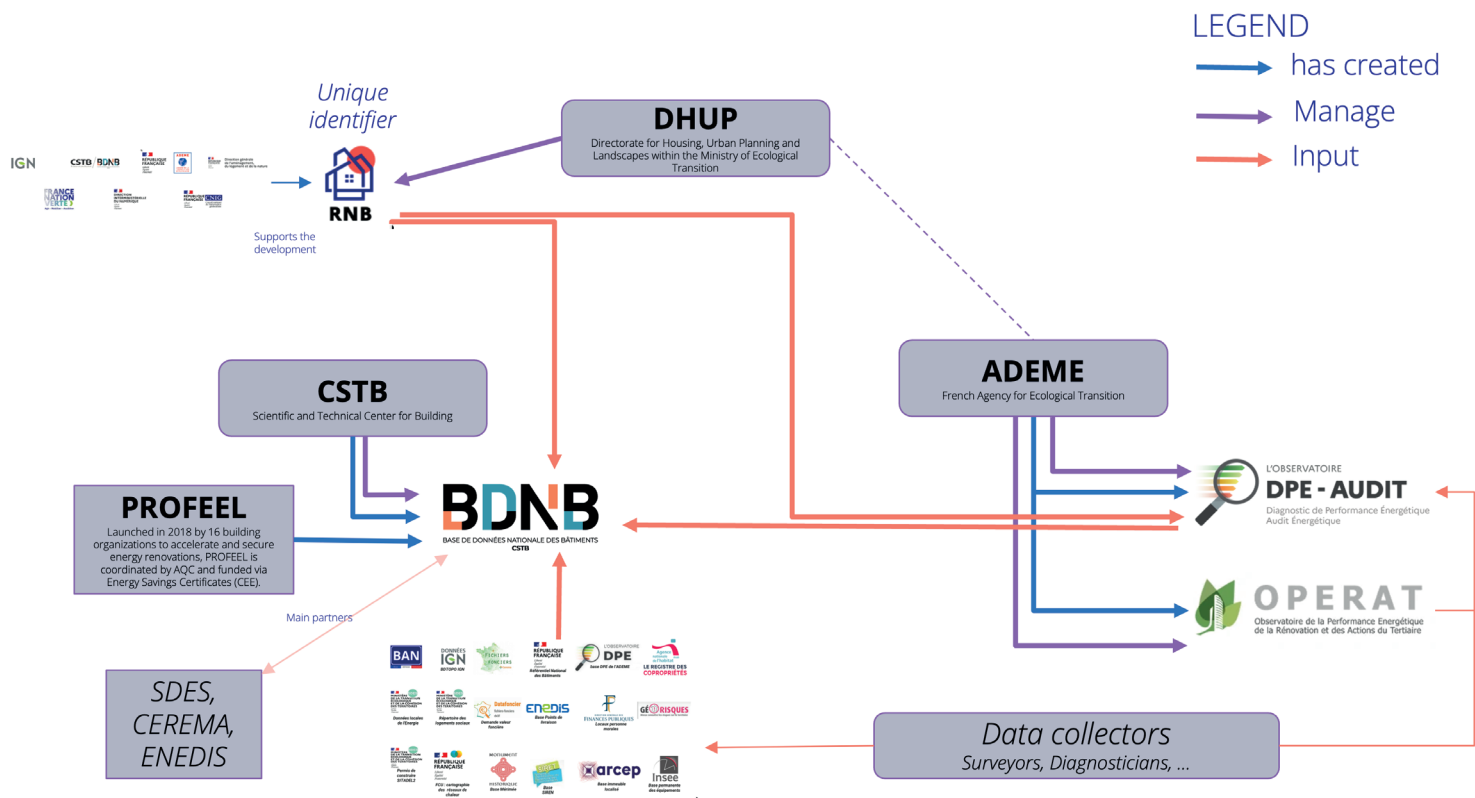
THE FRENCH BUILDING DATA ECOSYSTEM

France's mature building data ecosystem is governed by three institutional pillars: DHUP (policy), CSTB (technical), and ADEME (operational), that collaborate to synchronize fragmented datasets across the building stock.



GOVERNANCE: KEY INSTITUTIONS AND DATABASE MANAGERS

STAKEHOLDER(S)	DATABASE(S) MANAGED/ CONTRIBUTED	TYPE OF DATA	PURPOSE / USE
State startup (hold by IGN, ADEME, CSTB and DGALN)	RNB (<i>Référentiel National des Bâtiments</i>)	Unique ID (ID-RNB) and GPS coordinates.	It doesn't hold "technical" data; it provides the "Social security number" for every building to link all other databases.
CSTB (<i>Building Science & Technical Center</i>)	BDNB (<i>Base de Données Nationale des Bâtiments</i>)	Morphological (height, area), technical (materials, heating), and energy (DPE scores).	The largest database by volume. It focuses on the physics and energy of the building.
ADEME (<i>Eco-Transition Agency</i>)	Observatoire DPE (<i>Public registry for energy performance certificates</i>)	Energy certificates (A-G ratings). → included in the BDNB	Transaction-based data. It only grows when a house is sold or rented.
IGN (<i>National Institute of Geographic and Forest Information</i>)	BD TOPO (<i>The 3D vector component of the RGE® (Référentiel Géographique National).</i>)	Vector Data (3D): Precise geometries (metric precision) of building footprints. → included in the BDN	Used for Urban planning, flood risk modeling (altimetry), solar potential studies, 3D urban visualization, and cross-referencing demographic data with physical structures.
CEREMA (<i>Public Expertise Agency</i>)	Fichiers fonciers (<i>Land files & values</i>)	Land ownership, tax plot data, property transactions, and vacancy rates. → included in the BDNB	Analyzing land-use trends, urban sprawl, and supporting local authority housing strategies.
DGFIP (<i>Tax Authority</i>)	Cadastre	Fiscal boundaries, property owner identity, and tax valuation. → included in the BDNB	Providing the legal and fiscal foundation for building location and ownership rights.



STRATEGIC ANALYSIS (SWOT EXPRESS)

01 Strengths

Mature technical ecosystem

France possesses an advanced landscape characterized by the BDNB (managed by CSTB), which aggregates rich information on the national building stock.

Robust interoperability

The "National Building Registry" (RNB) provides a common identifier that enables the synchronization of datasets across different institutions.

Strong reporting frameworks

Platforms like the "DPE Observatory" and "OPERAT" (for tertiary buildings) are well established.

02 Weaknesses

Timeliness issues

Data accuracy is limited because DPEs are only generated during market transactions, leaving stable building stock unmonitored.

Fragmentation

Data remains scattered across multiple sources (ADeme, tax authorities, energy distributors), requiring substantial effort to synchronise despite the RNB.

Missing datasets

There is a lack of centralised collection for HVAC inspection reports, fragmented renovation financing data, and lack of energy poverty data.

03 Opportunities

Interconnection strategy

Adopting an approach to interconnect existing databases rather than creating a single one, in line with EPBD Art. 22.

Enhanced user experience (UX)

Developing the national Building Stock Observatory (BSO) as a user-friendly "Open Data" platform to empower local authorities.

04 Threats

Resource and funding stability

The need to formalize the roles of different actors with sustainable, long-term financing and dedicated administrative arrangements.

KEY STRATEGIES AND MESSAGES

Legally mandate the RNB: The National Building Registry (RNB) should be embedded as a legal requirement across all administrative and technical processes (tax, energy permits, etc.) to eliminate current data silos.

Structured interoperability: France should prioritise interconnecting existing platforms (such as OPERAT and the DPE Observatory) through standardised APIs and common data models rather than building a single massive database.

Centralise technical performance: Mandatory HVAC inspection reports should be operationalised and centralised, as they are currently a "blind spot" in national databases despite existing regulations.

Integrate socioeconomic data: Physical building performance data should be bridged with indicators like income and tenure to better track and address energy poverty.

Address data lag: Strategies are needed to update the "stable" building stock data, which currently remains outdated because DPEs are only triggered by market transactions (sales/rentals).

Sustainable governance: There is a need for formalised roles, responsibilities, and long-term funding for all key stakeholders to ensure ecosystem stability.

User-centric interfaces: The national BSO should work as a user-friendly "Open Data" platform with intuitive interfaces to empower local authorities and homeowners.

Data quality control and/or verification: Regular checks of data are needed to ensure the quality of data stored in databases.

Find the full report here



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