

SUCCESS CASE 26.2025

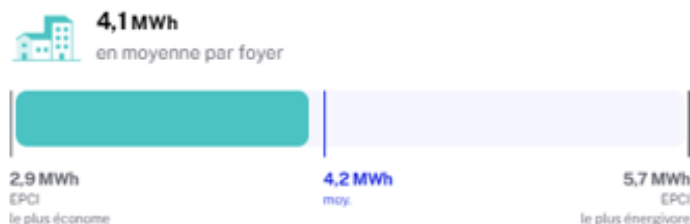
GeoDescriber

AUTOMATIC GENERATION OF
ARTICLES ON ENERGY
TRANSITION ON A LOCAL SCALE

Consommation d'électricité

La consommation moyenne annuelle résidentielle de cet EPCI (4,1 MWh/foyer en 2023) est assez faible comparée aux consommations moyennes des EPCI de la région.

⚡ ÉLECTRICITÉ



GEODESCRIBER IN A NUTSHELL

The Geodescriber feature was introduced as part of the service *Bilan de Mon Territoire* (“My Territorial Report”) in 2021. *Bilan de mon Territoire* is an online report freely accessible via the [Open Data](#) platform developed by Enedis which gathers energy data in order to **give local authorities** and their constituents **a thorough overview of the energy transition in their territory**. Thanks to GeoDescriber, a feature that automatically generates a textual summary outlining the main characteristics of local consumption and production of electricity, users can easily get a glimpse of their situation. The produced text can be adapted to the 100'000 different territories concerned.

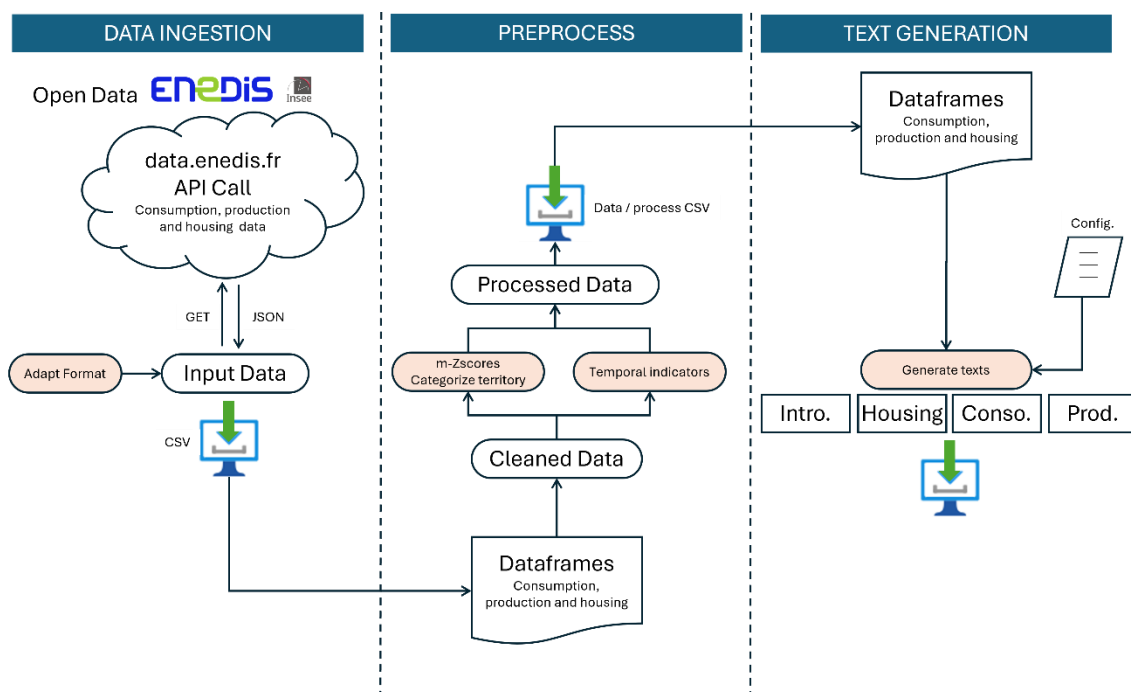
THE CHALLENGE

Given the challenges brought by climate change, the need for the ecological transition is growing at an increasing speed, and local authorities have a crucial role to play in implementing public policies in this area. Two opinion surveys carried out by Ipsos and BVA for Enedis in 2018 and 2020 showed that one in two local elected officials **does not have a clear vision of the energy consumption of their territory** and that more than a third of local authorities **need more support from Enedis to understand their territory's energy data**. Data is indeed key in the decision-making process and in the efficient implementation of environmental policies, but data alone without in-depth analyses does not allow for identifying the main local characteristics. Moreover, the number of territories for which such an analysis is necessary is very high, amounting to 100'000 in France.

THE SOLUTION

Enedis introduced the advanced feature Geodescriber to help users understand the data presented

in the *Bilan de Mon Territoire* report. The report now includes an introductory text automatically generated by GeoDescriber, which describes the local energy history, its main characteristics as well as population and housing information. GeoDescriber is a Data2Text tool that automatically generates texts based on territorial data analyses from Enedis Open Data and other reference sources. It provides a personalised description of the main characteristics of housing, residential energy consumption, and renewable energy production in the territory (a neighbourhood, a municipality or an intermunicipal community). GeoDescriber also highlights the strong features of the territory, such as significant renewable installations.



Geodescriber organisation in several modules.

MAIN ACHIEVEMENTS

- **Data2Text approach based on templates and business knowledge to ensure relevance of generated texts and scalability:** automatic generation of nearly 100'000 fact-based, relevant and personalised descriptions of the main characteristics of housing, residential consumption, and electricity production of neighborhoods, municipalities, and intermunicipal communities, from in-depth analyses of structured territorial data and text models established by experts.
- **Time savings:** Geodescriber enables the generation of 100'000 territory descriptions in less than 2 hours, which would normally take a business expert 8 years to carry out.
- **Adaptability and flexibility:** The programming code of Geodescriber is organised into several

independent modules. Each module can thus be modified, improved, and independently adapted. For example, it is possible to easily enhance the energy consumption part of the description by completing the initially electricity-oriented analysis with gas consumption. Furthermore, thanks to its modular structure, Geodescriber can be adapted for other data services using structured data whether in the energy sector or in other fields.

- **Enhancement of self-service data services:** Enriched with descriptive texts, *Bilan de mon territoire* is a comprehensive augmented electrical report accessible in one click. Although the main target of this report is local authorities, it is also utilised by employees of Enedis' territorial branch as a crucial tool for interacting with clients and end-users. In fact, the online report is freely accessible to all citizens via the Open Data platform. These descriptive documents bolster the adoption and utilisation of this self-service data service by users.

KEY SUCCESS FACTORS

- **Tailor-made description of a territory's electrical balance:** a tailor-made description in the form of a simple report highlighting the main characteristics of the territory in terms of housing, residential electricity consumption, and local production. This can, for example, emphasise a significant presence of the electricity generation sector within the analysed territory.
- **User-centric approach:** Enedis' R&D teams were essential for the success of the project. However, without business knowledge and the involvement of users, Enedis would not have achieved this level of relevance in the generated texts. The technical business teams and users worked together to create GeoDescriber. Users, i.e., local authorities and Enedis employees, participated in the project from the design phase and contributed to the review of the generated texts to validate their relevance.
- **Accessibility:** The generated texts can be easily vocalised with existing technical solutions. Information is thus more easily made available to everyone.

WAY FORWARD

The texts generated by GeoDescriber, although personalised, could improve in terms of fluidity and lexical richness. Enedis is currently enhancing the tool by using large language models (LLMs) to produce more fluent and relevant texts. This will enhance the support provided to users in interpreting aggregated annual electricity consumption and production data within a territory.

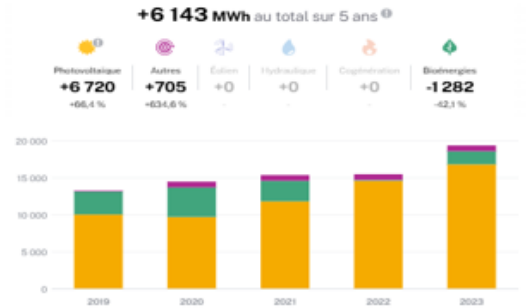
CA Golfe du Morbihan - Vannes Agglomération

L'EPCI 'CA Golfe du Morbihan - Vannes Agglomération' est situé dans la région Bretagne. Les analyses suivantes portent sur les données de consommation et de production d'électricité de l'année 2023.

Production d'électricité

Sa production annuelle d'énergie électrique (19425 MWh au total) est dans la moyenne de la région. Cette production provient globalement de la filière Photovoltaïque. Comparée à l'année précédente, la production d'énergie en 2023 est en hausse de 25 %. Sur les 5 dernières années, l'EPCI a connu une hausse annuelle moyenne de 10 % dans un contexte de hausse moyenne de 5 % au niveau de la région. À noter que dans cet EPCI, la production d'énergie représente 2 % de la consommation.

Évolution de la production par filière



Example of text produced by GeoDescriber for a territory.