

SUCCESS CASE 18.2025

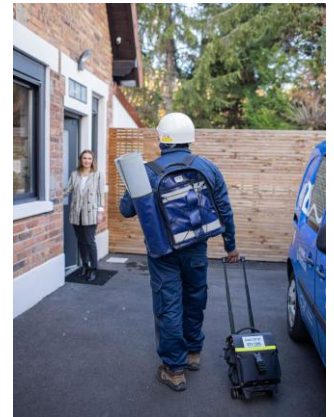
ARIIA

AI-BASED TOOL TO OPTIMISE OPERATIONS BY IDENTIFYING INTERVENTIONS AT RISK OF NOT SUCCEEDING



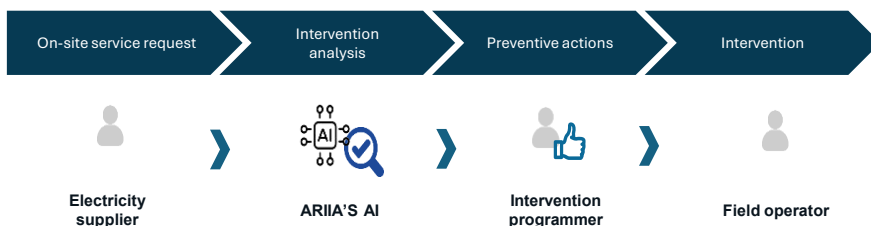
THE CHALLENGE

Enedis, responsible for managing 95% of the power distribution network in continental France, carries out interventions for 32 million residential customers at the request of their electricity suppliers. Despite the widespread deployment of Linky meters, Enedis receives approximately **2.5 million on-site intervention requests** annually. Due to a lack of proper description for some requests, some interventions fail and result in unnecessary trips to client premises. This not only leads to **customer dissatisfaction** but also results in **unnecessary mobilisation of field operators and programmers**, along with a significant **CO₂ impact** from the trips.



THE SOLUTION

Given the vast volume of interventions, a complete preventive analysis by humans would be extremely time-consuming. In this context, Artificial Intelligence (AI) presents a relevant **solution to perform a precise and comprehensive analysis** to identify incorrectly labelled interventions. Every morning, the ARIIA system developed by Enedis provides programmers with a list of likely-to-be-wasted on-site interventions, so they can call the customer, reclassify the interventions or



ARIIA optimising the intervention planning process.

cancel them. The system includes an innovative approach based on the **analysis of textual comments** provided by the supplier with their intervention request. The system uses **Natural Language Processing models**, capable of understanding and interpreting the French language and Enedis' technical vocabulary. The three developed models, specialised to work on three types of interventions, **predict whether the provided textual comment describes a customer situation that is compatible with the requested intervention**. Each model was trained on a dataset of 7000 cases, labelled by business experts.

MAIN ACHIEVEMENTS



Economic impact: In 2023, the system helped avoid 65'000 failed or unnecessary interventions on a national scale, resulting in a **€3.7M financial gain**.



Environmental impact: With an average of 10 km avoided per trip, the **CO₂ savings** in 2023 are estimated to be **100 tons**.



Customer satisfaction: The system helps ensure customer needs are met on the first visit, reducing the need for multiple appointments



Employee satisfaction: ARIIA benefits both programmers by saving time-consuming manual analysis and operators by avoiding unnecessary trips and customer conflict

KEY SUCCESS FACTORS

USER SUPPORT

300 users across all Enedis' territory use the solution every day, thanks to an enhanced change management effort (visits in agencies, AI literacy sessions,...) and direct communication channels with users.

MULTI-DISCIPLINARY TEAM

The project team mobilises business experts, key users, data scientists, software engineers and experienced designers to develop a robust solution that meets users' needs.

DATA-DRIVEN PROJECT

Continuous tracking and reporting of the tool's benefits and performance enable effective communication to stakeholders and effective project steering.

PROGRESSIVE SCALE

The project follows a phased approach, starting with proof of concept and gradually moving towards full industrialisation, ensuring measurable gains at each step.

WAY FORWARD

