



ENSE: AI as an ally of the energy sector

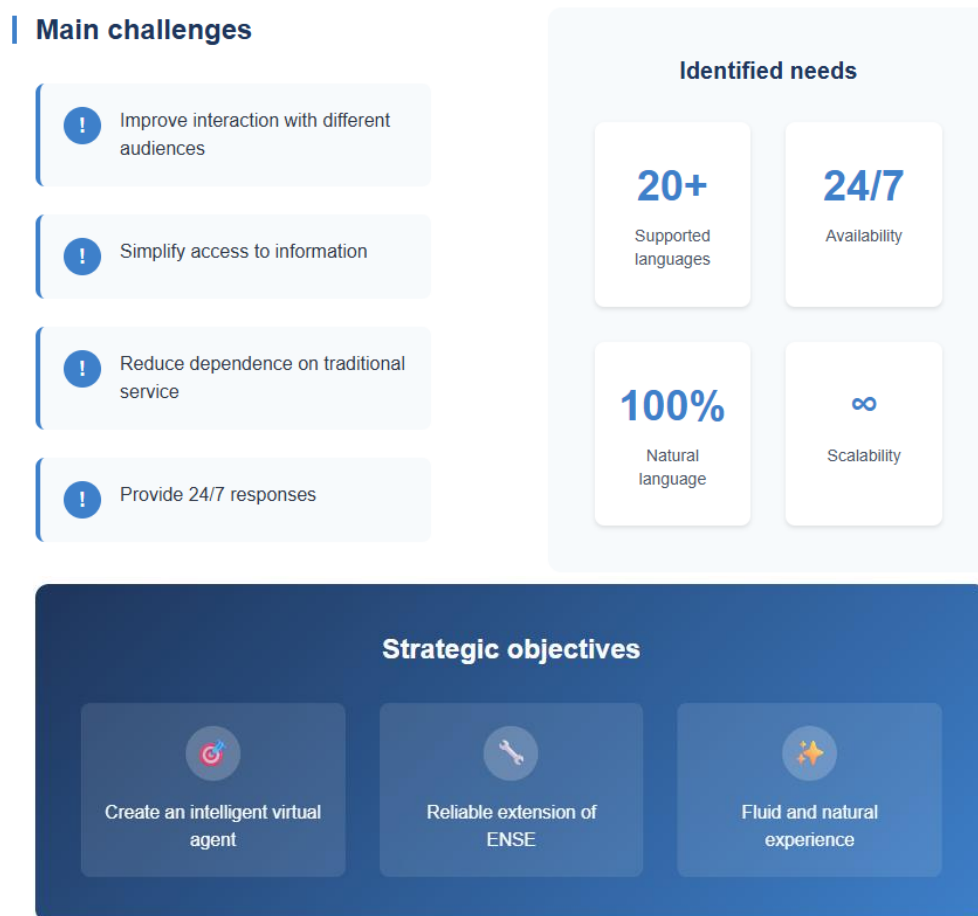
How the implementation of an intelligent virtual agent has enhanced accessibility, efficiency, and innovation in the digital services provided by Portugal's ENSE - Entidade Nacional para o Setor Energético.

Starting point: a challenge commensurate with digital transformation

The Portuguese ENSE - Entidade Nacional para o Setor Energético (National Entity for the Energy Sector) faced a clear challenge: to improve the way it interacted with different audiences, simplifying access to information and reducing dependence on traditional customer service. In a reality where the demand for fast, multilingual, and always available answers grows every day, the solution inevitably involved integrating cutting-edge conversational technology. The goal was ambitious – to create an intelligent virtual agent capable of understanding natural language, operating in more than 20 languages, and scaling with the organization's needs.

It was imperative that this new digital channel be more than just a chatbot. It had to represent a reliable extension of ENSE: fluid, natural, accessible, and truly useful.

Figure 1: A challenge worthy of digital transformation



From listening to execution: a user-centered approach

LBC (www.lbc-global.com), the technology partner responsible for the project, opted for a collaborative and iterative approach. It all started with a rigorous survey of content and requirements: strategic documents such as reports and accounts, inspection plans, and FAQs (Frequently Asked Questions) were analyzed, respecting the logic of “feeding the brain” of artificial intelligence (AI) with reliable, clear, and contradiction-free data.

Alongside the technical component, meticulous attention was paid to the writing: clear language, without overly technical terms/jargon, with short or medium-length answers depending on the context, always focusing on the end user. This was followed by three crucial phases: prototype development, rigorous testing with the ENSE team, and finally, production.

The methodology implemented divided the project into four main stages:



During the process, biweekly management meetings and monthly meetings with the Steering Committee were held, ensuring close monitoring and swift decisions.

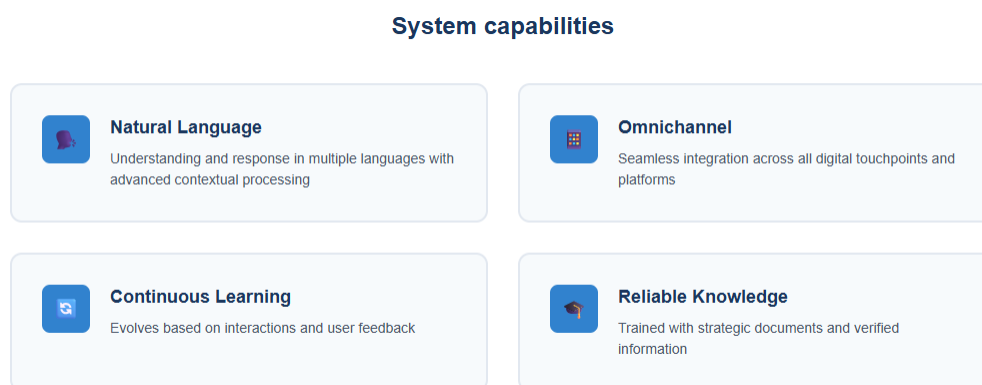
“With this intelligent virtual agent, ENSE has taken a step forward in the digitization of the energy sector. The solution demonstrates how AI can enhance transparency, proximity, and efficiency in public service in such an important sector. It was a great pleasure to have contributed to a more modern and accessible ENSE.”

João Mateus, partner at LBC

Impact: more than an assistant, a new way of serving

The result was an omnichannel virtual agent, capable of interacting with any user of the ENSE website in a natural, coherent, and empathetic manner. The system responds in multiple languages, processes language with context, and is able to evolve based on the interactions it collects.

Figure 2 - Virtual agent system capacity

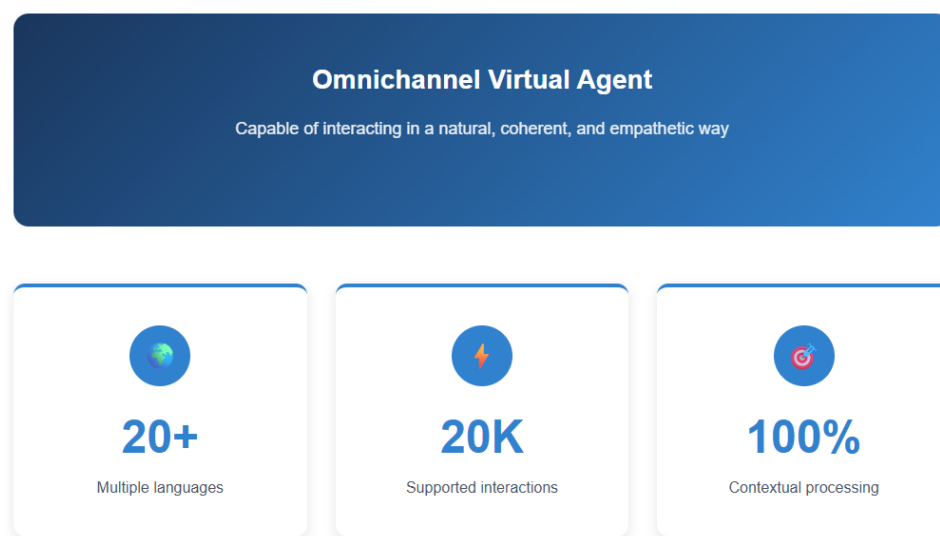


In addition to the evident improvement in accessibility and communication efficiency, the project brought notable gains:

- Reduction of the overload in traditional customer service.
- Faster and more specific responses to the needs of citizens and entities.
- Strengthening of ENSE's institutional image as an innovative and approachable entity.
- Adoption of best practices in usability, digital accessibility, and inclusive language, in line with Public Administration benchmarks.

After three weeks, ENSE had a fully functional digital assistant capable of managing up to 20,000 interactions – with the possibility of expansion.

Figure 3 - Omnichannel virtual agent: more than an assistant, a new way of serving



This step marked the beginning of a new era, where AI is at the service of citizens, bringing information closer, simplifying processes, and humanizing the experience.

LBC is an international strategy consulting and digital transformation company with experience in 18 countries and an innovation lab in Silicon Valley.

LBC can provide guidance to executives challenged by the pace of rapid transformation and support with implementation of digital transformation.

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