

Orange – Artificial Intelligence

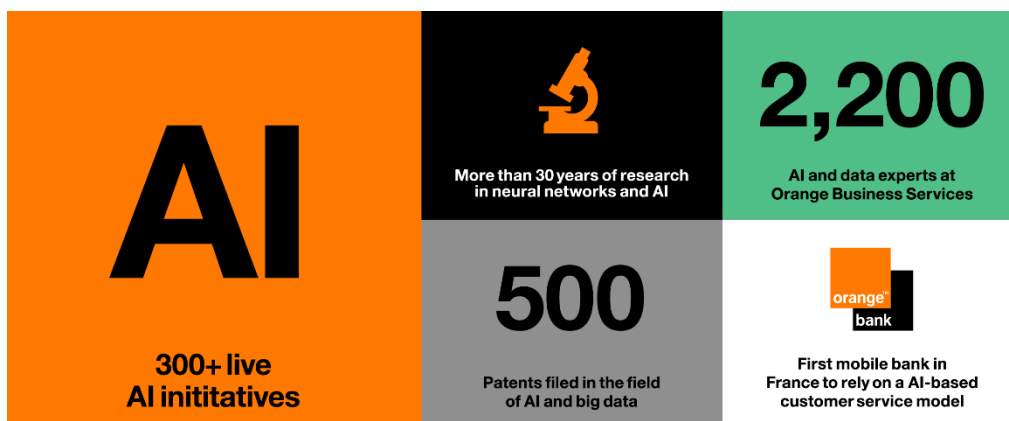
Orange believes that Artificial Intelligence will only truly matter if it serves a purpose to humankind and addresses people's most essential day-to-day needs. Making AI useful to people and the society is key for Orange, which is why the company has decided to put AI at the heart of its innovation model, as stated in the company's Engage2025 strategic plan. AI, and data, will support the company's growth and support its social and environmental goal, through 3 main priorities: making networks smarter, improving operational efficiency and reinventing customer experience.

Orange, through its enterprise branch Orange Business Services, also helps corporate customers benefit from AI and data, and transform their business through innovative customer experience services, the optimisation of business processes, consulting and cybersecurity services.

Orange's AI values:

- Orange believes that AI must serve human beings and meet the most essential needs of their everyday life. It will open up new opportunities for the individual, the society and the planet.
- AI must be well-thought-out, and should be inclusive, responsible (respecting both the data security and the privacy of the user) and. This means:
 - developing business practices to improve our ability to detect and/or correct the various issues with some AI systems such as bias and results that aren't easily explainable;
 - developing AI within an ethical and transparent legislative framework;
 - ensuring the use of well targeted, good quality data sets, under the right data governance.
- AI must contribute to the Group's objective of achieving carbon neutrality by 2040, by helping reduce energy consumption in our networks and datacentres despite the explosion of usages.

Orange and AI at a glance:



Here are a few examples illustrating how Orange is supporting its top 3 priorities for AI and Data

1. Make networks smarter

Avoid mobile network traffic overloads : To improve efficiency of our radio access network, we've deployed, as a proof-of-concept, an AI algorithm that is able to predict traffic congestion by analyzing and learning the behavior of radio quality indicators over several cells.

Network security: AI enables to detect fraud on Orange's international mobile traffic twice as fast as before, thanks to the implementation of a Machine Learning solution that analyses 150 Gigabytes of data every day to identify suspicious behavior.

2. Improve operating efficiency

Mobile network roll out: AI is used to optimise the roll out of mobile network antennas in Spain. By combining commercial and technical KPI analysis on a Big Data and machine learning tool, Orange is able to make better decisions and optimise its mobile network investments.

Optimize customer support operations: In France, thanks to the implementation of AI-assisted online diagnostic tools to test consumer's FTTH boxes, we've been able to avoid 280,000 field interventions yearly, resulting in substantial cost reduction.

3. Reinvent customer experience

Orange has implemented conversational agents based on AI, such as Djingo, to understand, interpret and process customer requests made either by text or voice and loop it back to a different media. Djingo has been integrated into the Orange Bank application in France and in Spain, through the 'MyOrange' app and orange.es, as well as in a voice-controlled TV remote ("Télécommande Djingo") in France. This conversational interface brings a fundamentally new way for Orange customers to interact in natural language with Orange services and customer support - thus improving customer experience.

Other key AI activities

- **Orange helps customers optimize their business with AI**
 - The Port of Antwerp, second largest in Europe, is using a large scale data analysis solution, provided by Business & Decision (an Orange Business Services subsidiary) to improve the monitoring of vessel traffic levels and optimize the port's operational chain.
- **Orange contributes to the development of a responsible and sustainable AI**
 - Orange is participating into the AI High Level Expert Group appointed by the EC that has published recommendations for the implementation of a trustworthy AI.
 - Orange has joined the Board of Directors of Impact AI, a 'think & do' tank that addresses ethical and social challenges and supports innovative and positive projects for tomorrow's world.
 - Orange has launched a Data and AI Ethics Council in 2021, made up of 11 independently recognized experts and chaired by its CEO Stéphane Richard. This independent and advisory body supports Orange's implementation of ethical principles governing the use of data and AI.
 - Orange is experimenting AI tools to reduce its environmental impact. e.g. comparing the energy consumption of cellular base stations in order to detect and fix abnormal power usages.
- **Orange is making increasing efforts to support the AI ecosystem in France and in Europe**
 - Orange supports AI start-ups through the Orange Fab accelerator program
 - Orange is co-financing research activities carried out by public institutions and 2 technological research institutes: SystemX and B<>Com,
 - Orange is playing an active role in the European AI4EU initiative.
- **Data and AI skills development**
 - Orange is a partner of the Microsoft AI School, powered by Simplon, dedicated to offering training to people who are out of work and become certified in AI and Data science. The company also offers a wide range of training options to its employees to develop skills in data science and AI.
 - Orange Business Services' subsidiary Business & Decision (B&D) has launched a "Data School" in 2019, to offer young graduates additional training in Data engineering and Data science and participate in real customer projects.