ENGINEERING
INFOGRAPHICS

A human centered approach to AI

Innovation calls for responsibility

In an era characterised by a new frontier of **human-machine interaction**, AI is becoming an essential part of our daily toolkit. Its pervasiveness is accompanied by **challenging ethical issues** such as fairness,transparency, accountability, as well as liability and security of AI solutions.

AI relies on existing data, but how data is chosen and interpreted often remains hidden from users. It is crucial to ensure that decisions are **transparent**, **explainable** and made according to **shared ethical values**.

Our approach

- We founded our first AI research center in Italy in **1987** and we developed our **Proprietary Large Language Model** in 2022
- We actively cooperate with EU institutions to promote **responsible and ethical development** of Artificial Intelligence
- We have been using AI for over 10 years to improve **digital accessibility**, for **energy sustainability**, to fight **climate change** and **misinformation**

A **Responsible AI** approach requires the involvement of multidisciplinary teams and the adoption of specific care from the collection and management of raw data, the writing of algorithms, and their training on previously selected data, to the very use of the information derived from AI-based systems.

The Value of Technology's Impact

Responsible Productivity

The integration of responsible production principles from the earliest stages of development of Artificial Intelligence models allows to significantly reduce the **computational resources** required and, consequently, the **environmental impact** of AI. The **cloud** adoption ensures **flexibility and scalability** according to needs, helping to decrease technological obsolescence. The **analysis of data** from advanced monitoring systems enables the **identification of inefficiencies** and the development of strategies for **resources optimisation**.

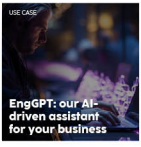
Social Cohesion

Promoting and supporting **inclusion and diversity** in AI development ensures that the solutions created meet the needs of **multiple stakeholders** and that the **benefits of AI** are fairly distributed. **No-code** AI tools, designed with effective usability principles, enable even non-experts to build AI solutions. **Virtual assistants** based on generative AI improve the **accessibility** of services, making them simple and intuitive to use, regardless of education, experience or skill level, by integrating different modes of communication such as visual, textual and oral.

Cyber Awareness

Artificial generation of **synthetic data**, simulating characteristics and distributions of real data, bridges information needs while protecting sensitive data and privacy, reducing bias and increasing the fairness of algorithms. The **private Generative AI** approach, with the implementation of Generative AI models within a controlled and private environment, guarantees accuracy and relevance. **Federated ML techniques** allow sophisticated local models to be developed in federated environments, without the need to exchange and share data.

Our Toolbox



Our Impact

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