GENERATIVE AI: UNITE OR SUBMIT

Using corporate data to strategically enrich AI models.

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EXECUTIVE SUMMARY

Generative AI (GenAI) represents a major transformation, comparable to the advent of Web 2.0 twenty-five years ago. Today, the challenge is not to repeat past mistakes, where our naivety came at a high cost in terms of competitiveness and sovereignty.

This report, therefore, proposes a pragmatic strategy for European industries, based on enriching AI models with our companies' data, to carve out an autonomous European path that preserves our values while strengthening our competitiveness.

By uniting our strengths, data, and ambitions, we can rise to this challenge and offer trustworthy generative AI.

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NEW DEAL

November 2024

AVOIDING THE MISTAKES OF THE PAST

We cannot risk allowing generative AI to further amplify the centralization and capture of value. We must prevent what we call "squared lock-in" **(GenAI = Web2²)**. If we do not act, our companies could find themselves caught in a vise between **Big Tech** on one side, with their **Big Clouds** (hyperscalers), and now their **Big AI** on the other.
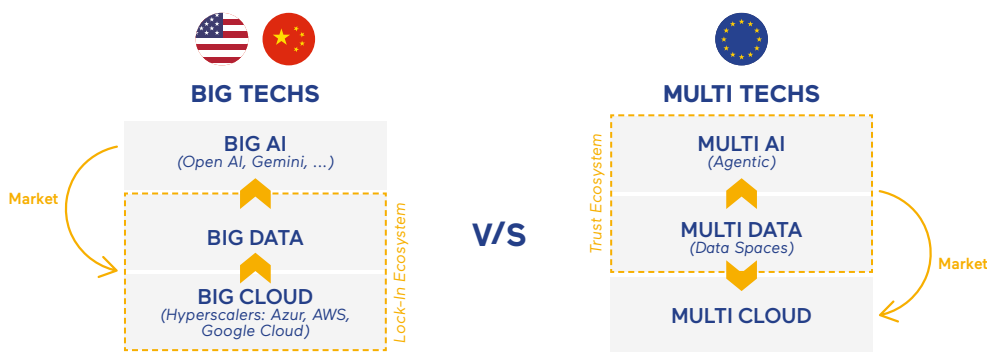
On one side, Big Tech exploits the dominant position of hyperscalers to lock in innovation around data and AI, creating a closed market dominated by integrated solutions (cloud, data, AI) that rely on the opaque and often excessive use of data. On the other side, open and collaborative Multi-Tech ecosystems emerge, built on reliable data shared between stakeholders (Data Spaces), incorporating legal, ethical, and sovereignty concerns from the outset, thus creating a market for trusted cloud offerings, bolstered by multi-cloud advantages.

TAKING A PRAGMATIC APPROACH TO GIGANTISM

We must be realistic and focus our efforts on achievable goals. The race to accumulate data for LLMs is already over (according to Yann LeCun, Large Language Models have become standard products). **It seems pointless to scrape the entire web to collect data as the tech giants do.** Not only would this raise ethical and legal concerns, but it would also lead us astray, both financially and ecologically.

Europe should focus on the category of **data that holds the most value and is the one thing Big Tech companies have yet to capture: the data from our companies.**

ENRICH MODELS BY CAPITALIZING ON PRIVATE AND COLLABORATIVE DATA (DATA SPACES)

We propose capitalizing on private enterprise data by aligning with the **European Data Strategy**. This strategy aims to promote the mutualization and voluntary sharing of data between companies to create a common data market, comparable to the American and Chinese markets, and finally reap the benefits of network effects (while avoiding the "Winner Takes All" phenomenon).

In practice, this involves participation in **Data Spaces,** cooperative environments that provide the right scale and governance to develop generative AI tailored to specific industries. **Without these trusted ecosystems, which ensure data sovereignty, the battle for generative AI would likely be unwinnable.**

Through Data Spaces, **industries will be able to adapt and personalize generative AI technologies** to meet their highly specific needs. To achieve this, the companies consulted recommend relying on up-to-date business data, which enhances user experience reliability without altering the underlying model (an approach known as Retrieval-Augmented Generation - **RAG**).

FACILITATING COOPERATION THROUGH OPEN SOURCE

The choice of Open Source is particularly beneficial for AI as it allows for cost-sharing, for example within an industry, increases transparency, reduces dependencies and lock-in effects, and greatly **facilitates collaboration between stakeholders.**

Sovereignty: The **OpenLLM France** community-driven approach, which develops digital commons for Generative AI, provides a strong foundation for building strategic autonomy in AI.

Competitiveness: Meta's Llama model perfectly illustrates the effectiveness of this challenger strategy, which can be a winning approach. **Llama 3.1 is already outperforming major proprietary models like ChatGPT** thanks to its Open Weight approach.

MAKING THE INDUSTRIAL GAMBLE ON LARGE ACTION MODELS (LAM)

In response to the Draghi report, which encourages bold technological bets, we propose focusing on Large Action Models (LAM). Rather than concentrating solely on language models (LLM), we believe Data Spaces should be used to create generative AI dedicated to the **autonomous execution** of actions (**agentification**). These innovative models offer Europe a strategic advantage by leveraging access to enterprise data, a domain where Data Spaces are particularly well-suited.
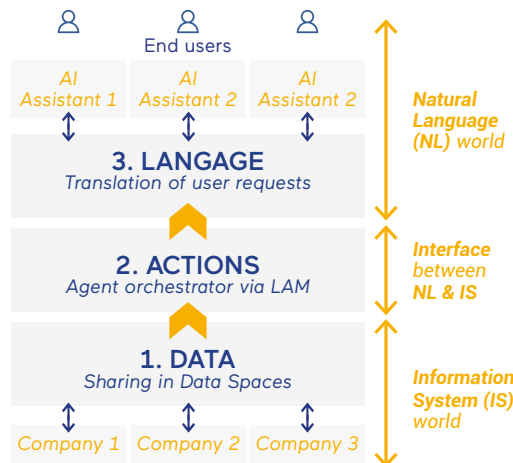
LLM
Language Model

Translation request into language

Text prompt

RAG
Companies data

Enrichment with company data

Enriched prompt

LAM
Action Model

Translation request into instructions for IT

Command prompt

ACTION
Triggering IT and interfaces

Agentification

EXAMPLE WITH THE TOURISM SECTOR

LLM
Open source
Mistral AI

Access to global tourism data (opaque but sufficiently rich)

Prompt texte

RAG
Data Space
EONA-X

Enrichment with business data shared by the tourism industry in their **Data Space**

Train timetables SNCF, rooms Accor,...

LAM
Tourisme
Gen4Travel

Sending action requests to the IT systems of various agents (travel assistants of EONA-X members)

Check availability: trains, hotel rooms,...

ACTION
Triggering action for the relevant **Travel Assistants**

Booking train SNCF & debooking night Accor

A NEW ARCHITECTURE FOR CAPABLE AND RESPONSIBLE AI

Currently, Data Spaces across various industries focus exclusively on data sharing. We propose an architecture for Data Spaces that better meets AI needs by adding two additional layers. This architecture, which we call the **Data Union for Capable AI (DUCAI)**, is built on three tiers:

1. Data: the current foundation of Data Spaces, ensuring interoperability and trust between participants.

2. Actions: an orchestrator that integrates a LAM, coordinating agents to perform complex tasks involving multiple agents.

3. Language: the interpretation of end-user requests in natural language, used by AI assistants that rely on the Data Space.

End users

AI Assistant 1   *AI Assistant 2*   *AI Assistant 2*

3. LANGAGE
Translation of user requests

Natural Language (NL) world

2. ACTIONS
Agent orchestrator via LAM

Interface between NL & IS

1. DATA
Sharing in Data Spaces

Information System (IS) world

Company 1   *Company 2*   *Company 3*

FOLLOWING THE EXAMPLE OF THE EONA-X DATA SPACE WITH GEN4TRAVEL

The ideas presented in the report are replicable across all industries. However, to facilitate their adoption, we have illustrated our recommendations with a guiding example from the travel industry. **The Gen4Travel** project brings together various stakeholders in the industry to collaborate on creating a shared toolbox for generative AI. This digital commons will allow any willing participant in the industry to offer their clients an AI-powered Travel Assistant to simplify the travel experience.

The Gen4Travel technological initiative was born and developed within the **EONA-X tourism and mobility** Data Space, a shared Data Space that includes members such as Accor, Aéroports de Paris, Aéroport Marseille Provence, Air France-KLM, Allianz, Amadeus, Anysolution, Apidae, Atout France, Atos, Capgemini, Compagnie des Alpes, Digital New Deal, Inria, Renault, and SNCF.

LLMs for and by the Travel Industry

This project promotes cost-sharing and the exchange of experiences and training data, thereby reducing individual expenses while increasing overall efficiency through the participation of industry stakeholders (including smaller players, who are often less digitized and therefore more vulnerable to disintermediation).

Creating a travel LAM for all Travel Assistants

The Gen4Travel project has already identified several Travel Assistant features that will need to rely on a Large Action Model (LAM), such as booking (train, plane, hotel, tourist activities, etc.). The **action delegation** offered by LAMs will allow a traveler, for example, to **verbally ask their assistant to book a trip to a specific destination, taking into account their personal information.** The assistant will analyze the various available options (e.g., multimodal routes) and compare them with the traveler's specific constraints (schedule, budget preferences, accessibility needs, loyalty cards, etc.). It will then be capable of making the corresponding reservations, with the traveler's approval, but without requiring detailed supervision.

Use case : managing a disruption during a booked trip

If the traveler's flight is canceled, the **assistant will be autonomous enough to offer to rebook another flight, reserve a hotel for the night, or reschedule the car rental at the destination, and adjust other elements of the itinerary.** It will be able to coordinate actions and negotiate with various service providers, requiring only final approvals from the user, without needing direct intervention throughout the process.

THE GEN4TRAVEL EXAMPLE CLEARLY ILLUSTRATES THE STRATEGIC ADVANTAGE OF ENTERPRISE DATA:

The industry is able to offer services of exceptional value, which actors like OpenAI cannot provide (unless companies deliberately choose to grant them access to their information systems, thereby risking dangerous dependence on these digital giants).

This is a unique momentum because, unlike the United States where the need for harmonized data for AI is just emerging ("harmonized data layers"), Europe has already gained a head start with its Data Spaces initiatives. So let's capitalize on this competitive advantage to create the Gen4Legal, Gen4Finance, or Gen4Health of tomorrow !

Full report available on the digital new deal website

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November 2024

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