



EXPLORING THE FRONTIERS OF DIGITAL INTELLIGENCE

LuxProvide and Meluxina on the path to democratizing access to supercomputing for data science and AI



Data has become an essential asset across all sectors

- The volume of data is growing exponentially due to increased digitization of processes.
- Data science and AI have evolved from niche disciplines into critical technologies that drive innovation.
- Collecting, storing and processing large amounts of data and then applying data science and AI techniques to derive value has never been so important.
- Advanced computing and data infrastructures are catalysts for data science and AI.
- Organizations that successfully adopt data science and AI are gaining competitive advantages.
- Businesses are transforming into data-driven entities.



AI companies that raised the most funds in 2024

Europe's development in data science and AI, while growing steadily, tends to lag behind the USA in terms of scale and investment. The USA has established a dominant position, driven by large tech companies, significant private funding, and a more flexible regulatory environment.

#	Name	What it does	Funding	Year founded	Headquarters
1	Open AI	AI model developer	11.3B	2015	San Francisco, California
2	Anthropic	AI model developer	7.7B	2020	San Francisco, California
3	Databricks	Data Storage and Analytics	4.0B	2013	San Francisco, California
4	Anduril Industries	Defense SW and HW	2.8B	2017	Costa Mesa, California
5	Figure AI	Autonomous humanoid robots	754M	2022	Sunnyvale, California
6	Cerebras Systems	Computer chip maker	720M	2016	Sunnyvale, California
7	Insitro	Drug discovery and development	643M	2018	San Francisco, California
8	Scale AI	Data labelling and SW	600M	2016	San Francisco, California
9	Hugging face	Library for AI models and datasets	395M	2016	New York
10	Mistral AI	Open-source AI model research	528M	2023	Paris, France
11	Cohere	AI model developer	445M	2019	Toronto, Canada
12	Adept	AI model developer	415M	2022	San Francisco, California
13	Glean	Enterprise search engine	360M	2019	Palo Alto, California
14	Notion	Productivity SW	330M	2013	San Francisco, California
15	Owkin	Drug discovery and development	304M	2016	New York

What it takes to scale up AI



LuxProvide



18,000,000,000,000,000

FLOPS/SECOND PEAK COMPUTE PERFORMANCE

90.000
HPC CPU cores
800
GPU-AI accelerators
20
Petabytes high-speed storage
300+
Software packages

WE SERVE

RESEARCH **PUBLIC** **BUSINESS**

>600 projects | >2000 users from Luxembourg, Europe and beyond

OUR SERVICES

CONSULTING **AI AND BIG DATA ANALYTICS PLATFORM** **COMPUTE**

DIGITAL TWINS

- Guidelines such as:
 - To exploit massive amounts of data
 - To improve processes through the usage of AI
 - To scale simulation on HPC
- NUMERICAL SIMULATION
- AI
- BIG DATA

- HPC AS A COMMODITY
- HPC AS A SERVICE
- HPC AS AN APPLIANCE



LuxProvide AI approach

The trustful, secure and sovereign environment for AI pre-production and continuous improvement

Security



Data Sovereignty



Data Center Tier IV

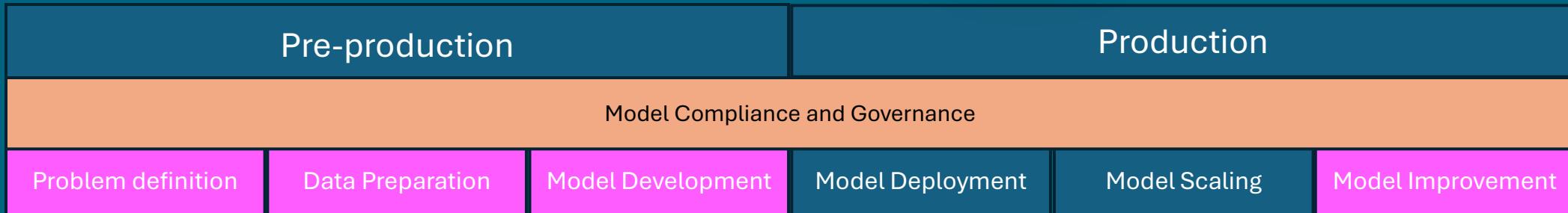


Private connection



ISO 27001

Services



Platform



Expertise



State-of-the-art HPC



AI SW & Frameworks



INITIATE (START-UPS)

FREE ACCESS TO THE LUXEMBOURG'S WORLD-CLASS SUPERCOMPUTER MELUXINA



CASHBACK80 (START-UPS & SMES)

UP TO 80% CASHBACK ON YOUR USAGE OF MELUXINA. LUXEMBOURG'S WORLD-CLASS

Democratizing access to supercomputing



TEXT ANALYSIS

Document compliance verification

LLM | RAG

DEVELOP CUSTOM MODEL
FOR TARGETED TEXT
GENERATION IN
CONTROLLED SETTINGS



SPEECH
GENERATION



TTS / STT



GENERATION OF VOICES
FOR MANGAS/ANIMES
+
AUTO-TRANSCRIPTION
INTO TEXT FROM AUDIO





OPTIMIZING
INDUSTRIAL
PRODUCTION
LINE



AI &
NUMERICAL
SIMULATION



OPTIMIZATION OF TIERS
PRODUCTION-COMPLEX
MATHEMATIC MODEL OF
LINES- PREDICTION OF
LINE USAGE & EVOLUTION



Thanks

How to scale- up the business

