



DELTA • PROJECTS

Compute Atlas

We're building an open map of the computing power behind AI: where it is, how much there is, and who owns it.

IN SHORT

01 What

A database and a website that link AI data centers, GPU clusters and cloud regions to the companies behind them. Every record comes with its source.

02 Why

The biggest AI data centers are built by a handful of companies, often for someone else: Amazon owns the New Carlisle site, Anthropic uses it. The data is public, but it's scattered, and nobody puts it together.

03 What you get

A real project with databases, REST APIs and web development, and a live site you can show at an interview.

PROJECT LEAD

Ermanno di Giulio

WEBSITE

deltapolimi.org

CONTEXT

Few companies, **most** of the power

63%

Amazon (28%), Microsoft (20%) and Google (15%) together, share of the cloud infrastructure services market in Q2 2026. Source: Synergy Research, July 2026.

95

Large AI data centers tracked by Epoch AI, with owner, main user, country, compute and power. Updated October 2026.

500+

GPU clusters and supercomputers in Epoch AI's earlier dataset, no longer updated since March 2026. Useful as a historical baseline.

WHAT WE ADD

The data is out there. We **connect** it.

Epoch AI already publishes great tables and maps. We don't want to copy them. We want to add three things.

01 Follow the ownership

We link every site and cloud region to its parent group (using GLEIF and Wikidata), so you can see how much capacity a whole group controls, not just one company.

02 GPUs and cloud on one map

Where the big AI data centers are, where cloud providers operate, and where the two overlap, by country and by company.

03 Europe and Italy

Views focused on where we live. Global datasets are still thin here: Epoch says it's expanding its European coverage.

QUESTIONS IT SHOULD ANSWER

— How much AI compute does each group control, subsidiaries included?

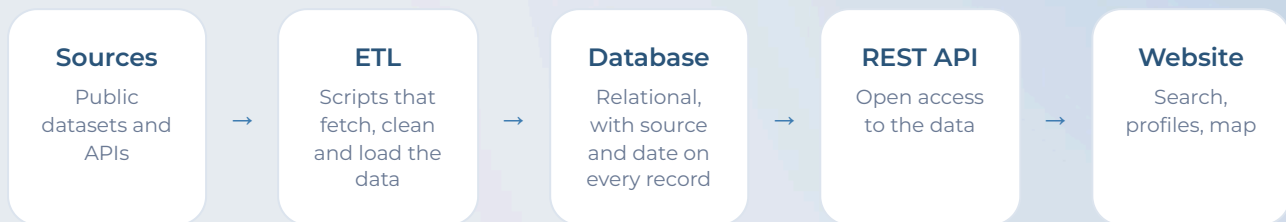
— Which countries host the most capacity, and who owns it?

— Who owns a data center, and who actually uses it?

— Who runs AI infrastructure in Europe and in Italy?

HOW IT WORKS

From scattered data to a **map**



ETL (Extract, Transform, Load): scripts that pull data from the sources into our database on a regular schedule.

DATA MODEL

Entity

A company, public body or university, linked to its parent group.

Asset

An AI data center or GPU cluster (country, compute, power) or a cloud region (location, provider).

Relation

Who owns it, who runs it, who uses it.
Ownership chains are rebuilt with recursive SQL queries.

Source

Where each record comes from and when it was last updated. No source, no record.

PHASES

1 • Data

Design the database (UML, SQL), write the ETL for the main sources, then add ownership chains.

2 • Platform

Build the REST API and the website (backend and JavaScript frontend): search, entity and country pages, map.

WHERE IT CAN GO NEXT

- **Question assistant:** ask in plain language, get an answer from the database with its sources. It matches questions to predefined SQL queries and runs on open-source models.
- **Connectivity:** submarine cables and interconnection points.
- **Year after year:** new data every academic year, so the map shows how ownership changes.

What's public

We checked in October 2026. Data on AI data centers is detailed. Cloud data tells us where regions are, not how big they are.

SOURCE	WHAT IT PROVIDES	ACCESS	NOTES
Epoch AI AI Data Centers	95 large sites: owner, main user, country, compute, power, cost, build timeline (from satellite imagery and permits)	CSV · CC BY	CORE Mostly US, growing
Epoch AI AI Supercomputers	500+ GPU clusters: owner, country, chip type and count, power	CSV · CC BY	No longer updated since March 2026
Cloud providers	Official lists of cloud regions: location and provider	Public web pages	CORE No capacity data
GLEIF	Corporate structure: direct and ultimate parent	Free API, no sign-up	Only companies with an LEI code
Wikidata	Owners and operators of companies and facilities	SPARQL · CC0	Some gaps
OpenStreetMap	Data centers tagged with their operator	API · ODbL	Patchy coverage
PNNL Data Center Atlas	Data centers with fiber, power and water	Downloadable	US only
Synergy Research	Cloud infrastructure market shares	Press releases	Headline figures only

We credit the source wherever we use CC BY data. If we republish a database built on OpenStreetMap, it stays under ODbL.

REFERENCES

epoch.ai/data/ai-data-centers · epoch.ai/data/ai-supercomputers · gleif.org/en/lei-data/access-and-use-lei-data/level-2-data-who-owns-whom · wikidata.org · wiki.openstreetmap.org/wiki/Tag:telecom=data_centre · pnnl.gov (Data Center Atlas, Jan 2026) · srgresearch.com (Q2 2026 cloud market, Jul 2026)

PLAN

Scope, team and **timeline**

First release

- AI data centers and GPU clusters from Epoch AI, linked to their parent groups
- Cloud regions of the main providers
- Search, entity and country pages
- Map
- Source and date on every record

Team

- **Database and ETL:** UML, SQL, Python
- **Backend:** REST APIs
- **Frontend:** JavaScript, data visualisation
- Open to all PoliMi students

TIMELINE

WHEN	WHAT
Mid-November	Kickoff
Nov – Dec	Database design and ETL · data in by Christmas
Jan – Feb	Ownership chains and cloud regions, slower during exams
March	REST API and website · first release by end of March

HOW WE WORK

Every record has a source

With the date it was last updated.

Open licences only

We use sources under their terms and credit them.

We say what's missing

The map shows what it knows and what it doesn't.

Data, not opinions

No judgements on companies or providers.