bi-rex
Big Data Innovation & Research Excellence

R&P
RONCUCCI&PARTNERS
SUSTAINABLE BUSINESS DEVELOPMENT

EVENTO

DATA ECONOMY PER L'INTERNAZIONALIZZAZIONE

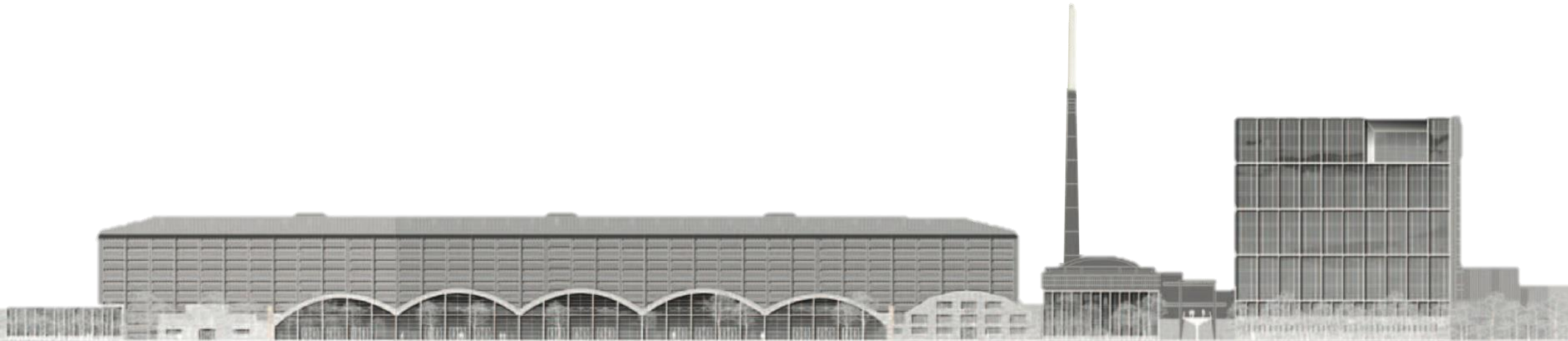
21 GENNAIO 2025
16:00 - 18:30

Francesco Ubertini

DATA ECONOMY PER L'INTERNAZIONALIZZAZIONE

21 gennaio, 2025

hpc.cineca.it



The future of European competitiveness

Part A | A competitiveness strategy for Europe

SEPTEMBER 2024

TOP COUNTRIES BY COMPUTING POWER

Based on the TOP500 ranking of supercomputers

MAXIMUM PERFORMANCE → 6.5M TFLOPS United States

OF COMPUTERS IN TOP500 RANKING → 172

VISUAL CAPITALIST

One teraflop is equal to one trillion floating-point operations per second.

Where are specialized AI hubs emerging?

Countries outpacing the US on AI funding growth and headcount growth

Country	YoY change in AI equity funding	Median YoY headcount growth*	Select local AI startups gaining traction (recently funded + headcount growth)
Italy	449%	15%	BENDING SPOONS, MMI, iGenius
Australia	174%	19%	SafetyCulture, InDebted, RDC
Norway	151%	16%	THORVALD, Findable
India	33%	11%	GoKwik, NewSpace, HABER
Switzerland	33%	14%	LEM, NEURAL CONCEPT, LatticeFlow
South Korea	29%	18%	42dot, rebellions_, tipstage

Source: CB Insights data as of 11/8/2024. Excludes countries that received < $200M in AI funding over the last year. *To measure median headcount growth, we started with 15,000+ AI companies and filtered for those with disclosed change in headcount over the last year, grouped them by HQ, and filtered out countries with fewer than 10 companies meeting the criteria.

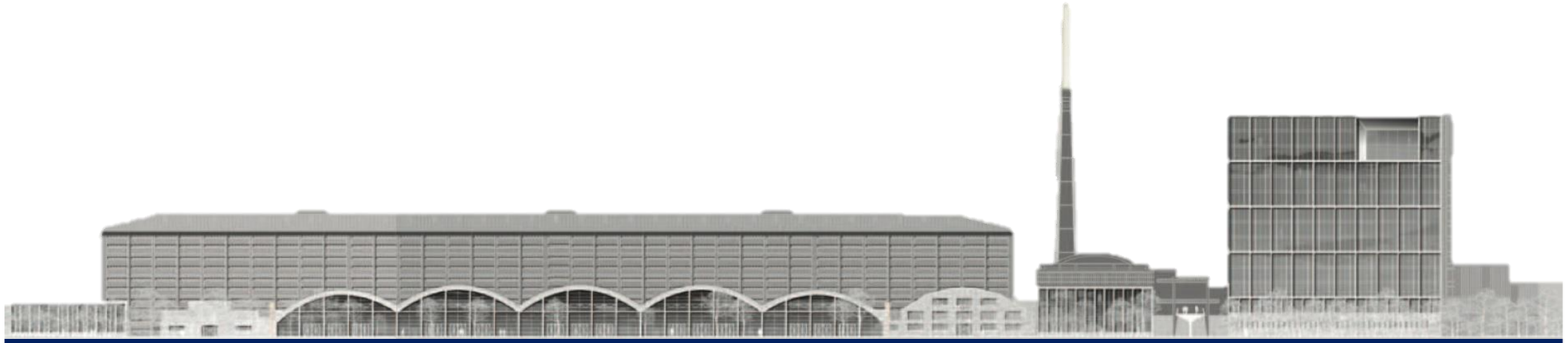
CBINSIGHTS

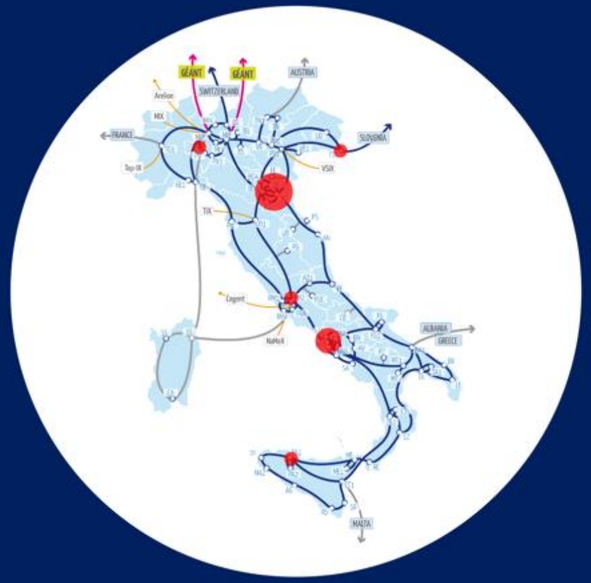
EuroHPC
Joint Undertaking

In July 2021, the Council adopted a new regulation on establishing the new European High Performance Computing JU. It sets out an ambitious mission and is accompanied by a substantially larger budget of €7 billion for the 2021-2027 period. **EuroHPC brings together 32 participating countries, and 3 private partners.**

eurohpc-ju.europa.eu


November 2023
TECNOPOLO
DATA VALLEY HUB
UNITED NATIONS
UNIVERSITY
INFRA-
STRUCTURE
RESEARCH
EDUCATION
T
INNOVATION
HPDA
AI
HPC
Comune
di Bologna
RegioneEmilia-Romagna





ITALIAN INFRASTRUCTURE

REINVENTING THE CITY

EU ECOSYSTEM

CINECA | HPC
High Performance Computing

ABOUT US | OUR ACTIVITIES | SYSTEMS | HPC ACCESS | USER SUPPORT | TRAINING | PROJECTS | SUCCESS S

Get Inspired

SEE SUCCESS STORIES | SEE USE CASES

HANDYTRACK: HPC FOR HAND GESTURE DATASET GENERATION AND DEEP LEARNING TRAINING FOR DETECTION AND TRACKING

Read More >

WEATHERAI

Read More >

HPC-BASED NAVIGATION SYSTEM FOR MARINE LITTER HUNTING

Read More >

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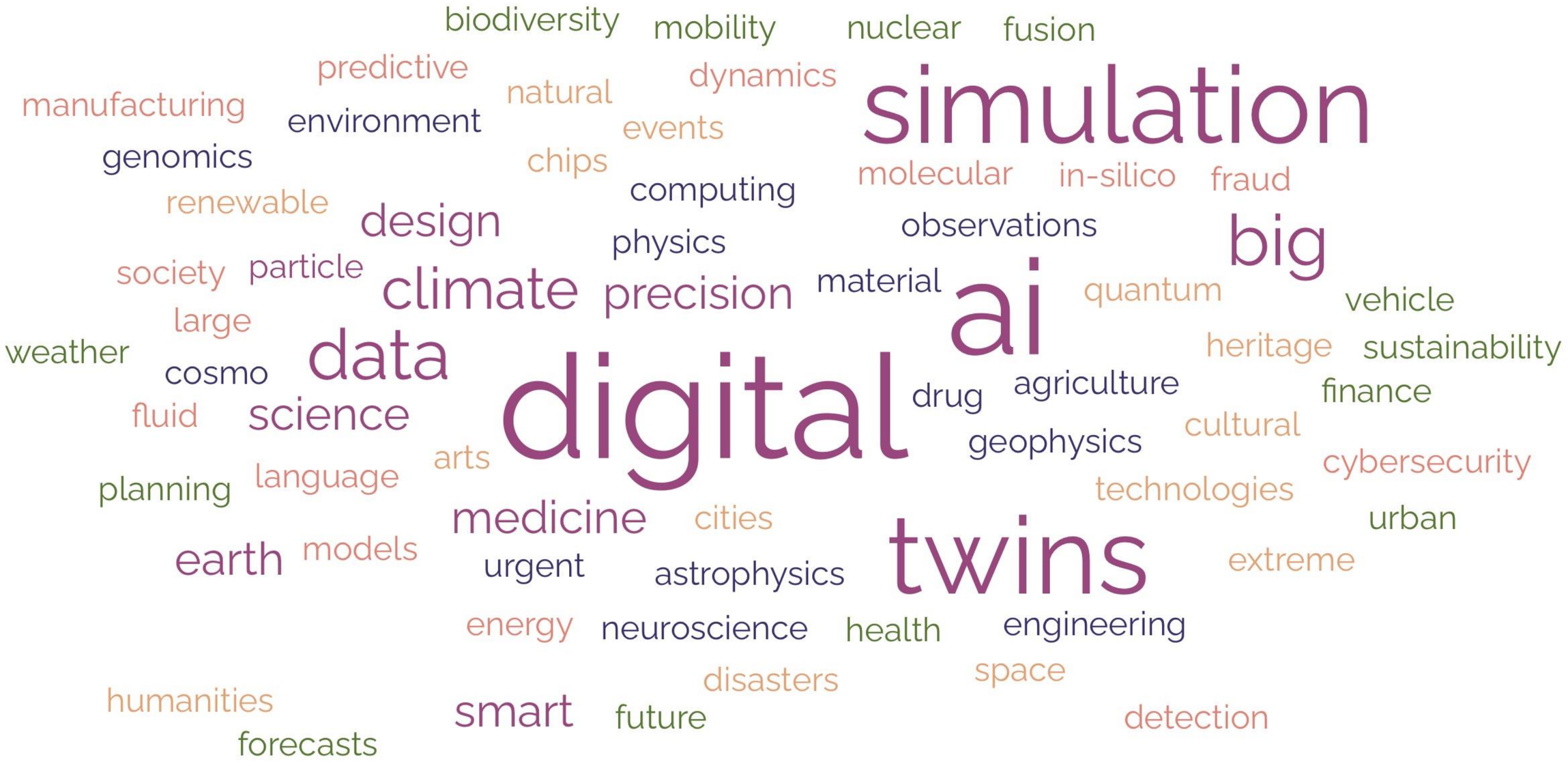

biodiversity
mobility
nuclear
fusion
predictive
dynamics
simulation
manufacturing
natural
environment
events
genomics
chips
molecular
in-silico
fraud
computing
renewable
design
observations
big
physics
society
particle
climate
precision
material
ai
quantum
vehicle
large
heritage
sustainability
weather
data
digital
drug
agriculture
cosmo
finance
fluid
science
cultural
geophysics
arts
cybersecurity
planning
language
technologies
medicine
cities
urban
twins
earth
models
extreme
urgent
astrophysics
energy
neuroscience
health
engineering
space
disasters
humanities
smart
future
detection
forecasts

Through our **Artificial Intelligence (AI)**, Europe is already leading the way on making AI safer and more trustworthy, and on tackling the risks stemming from its misuse.

We must now focus our efforts on becoming a global leader in AI innovation.

In the first 100 days, we will ensure access to new, tailored supercomputing capacity for AI start-ups and industry through an **AI Factories initiative**.

We will also develop with Member States, industry and civil society an **Apply AI Strategy** to boost new industrial uses of AI and to improve the delivery of a variety of public services, such as healthcare.

In this spirit, I will propose to set up a **European AI Research Council** where we can pool all of our resources, similar to the approach taken with CERN.

Putting research and innovation at the heart of our economy

Europe's competitiveness – and its position in the race to a clean and digital economy – will depend on starting a new age of invention and ingenuity. This requires putting research and innovation, science and technology, at the centre of our economy.

We will **increase our research spending** to focus more on strategic priorities, on groundbreaking fundamental research and disruptive innovation, and on scientific excellence.

To do this, we will expand the European Research Council and the European Innovation Council.

2024 Innovation Package: from AI Factories to GENAI4EU

STARTUPS

UNIVERSITIES

EUR 2 bn

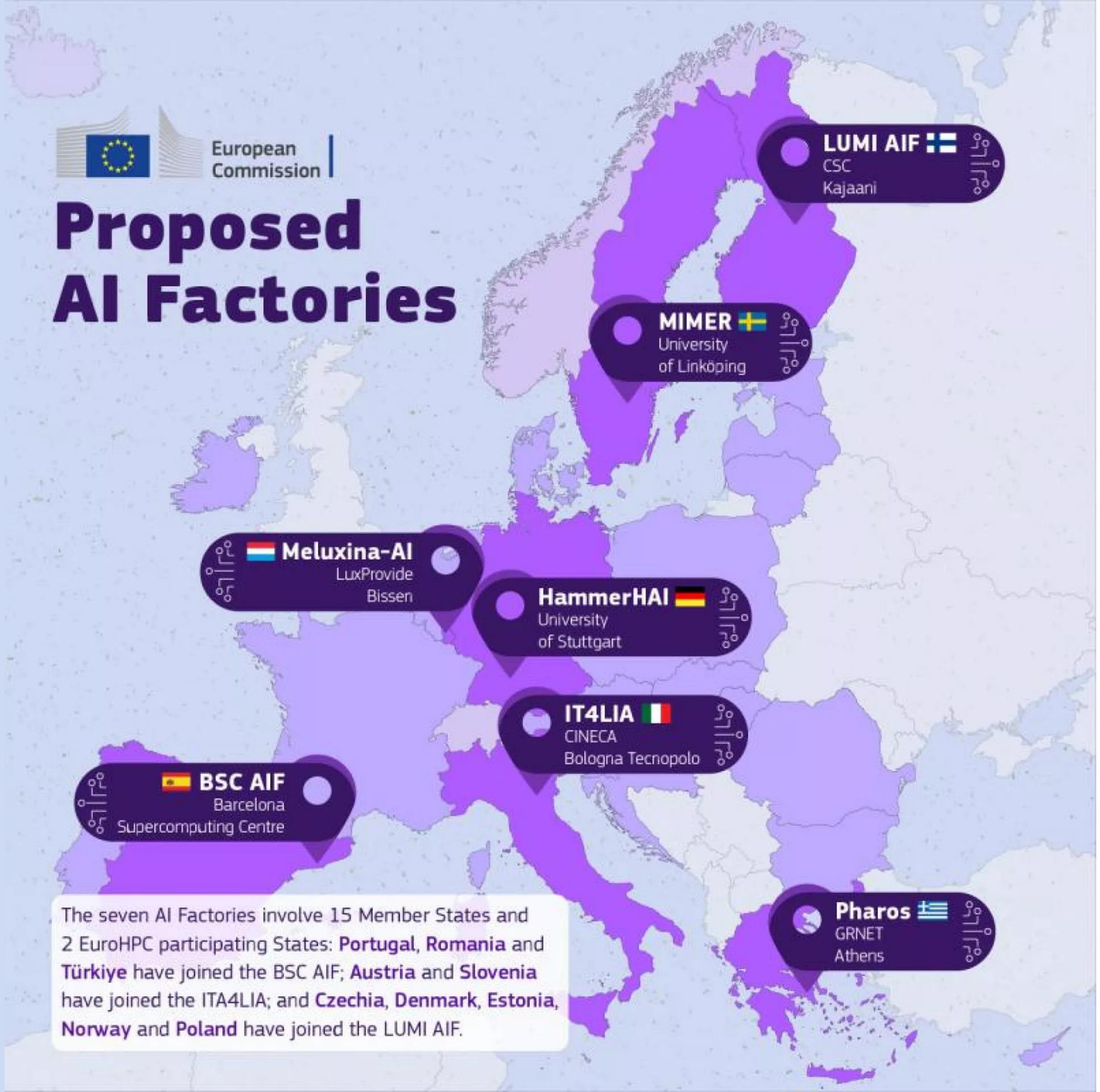
About 6300 AI Startups in the European Union

About 300 are generative AI Startups

EUR 500 million in applications GenAI4EU initiative

→ TOWARDS GENAI SOLUTIONS « MADE IN EUROPE »

EUROPEAN ARTIFICIAL INTELLIGENCE OFFICE



Ursula von der Leyen · 3° e oltre
President of the European Commission
4m ·

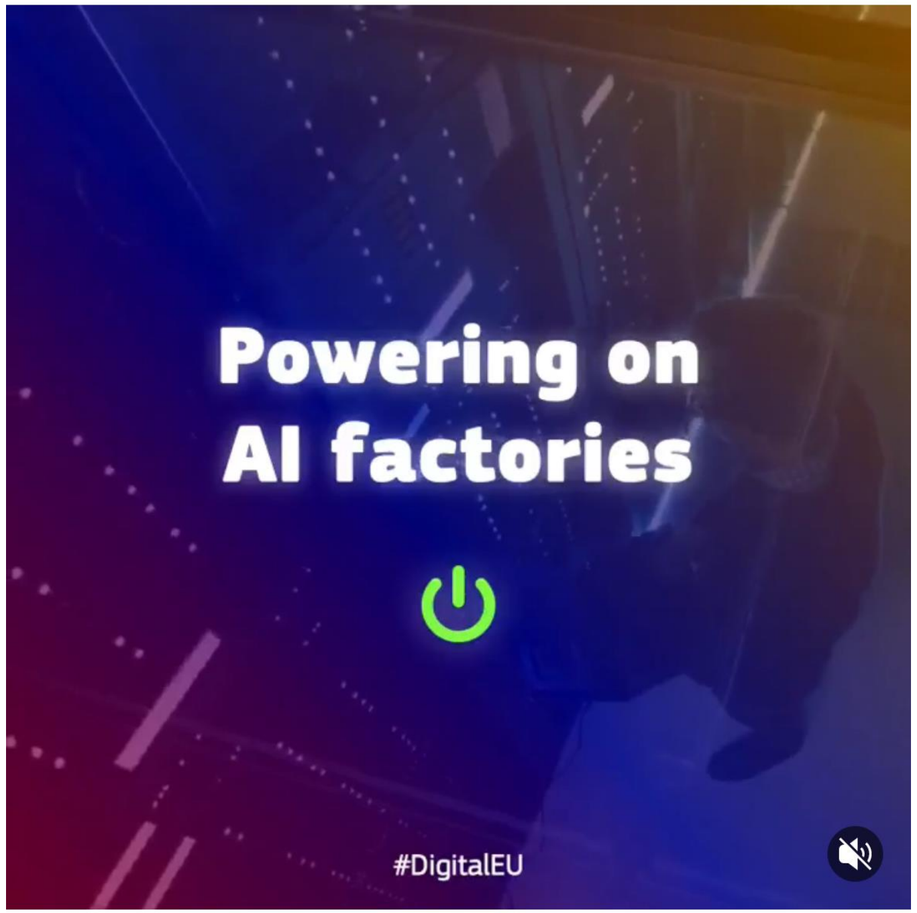
+ Segui

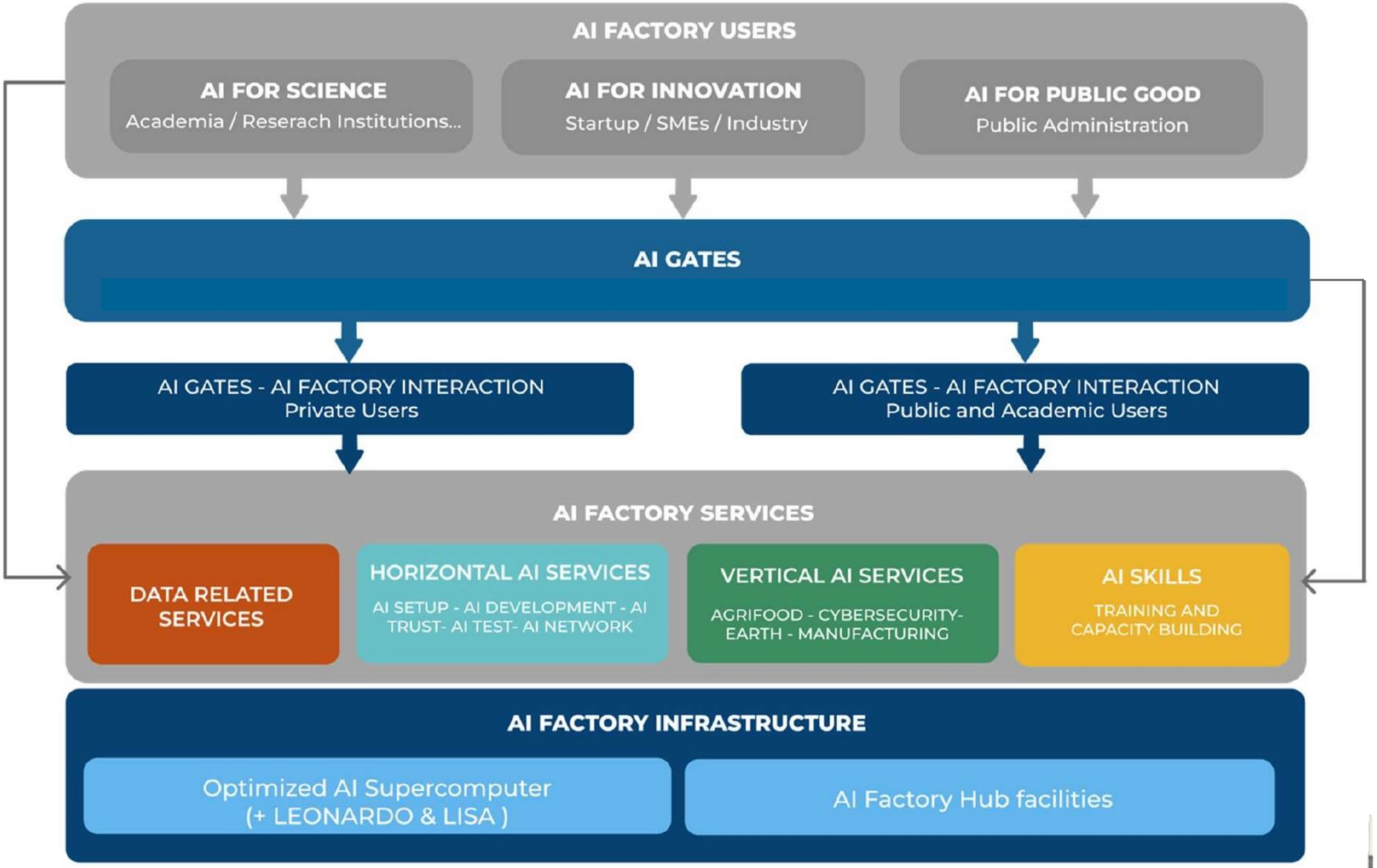
Today we are launching a call for AI Factories.

We are making EU funding available to set up facilities that will provide European AI start-ups and industry with all the ingredients for success →

access to supercomputers, data, storage and a collaborative network.

Mostra traduzione




AI FACTORY USERS
AI FOR SCIENCE
Academia / Reserach Institutions...
AI FOR INNOVATION
Startup / SMEs / Industry
AI FOR PUBLIC GOOD
Public Administration
AI GATES
AI GATES - AI FACTORY INTERACTION
Private Users
AI GATES - AI FACTORY INTERACTION
Public and Academic Users
AI FACTORY SERVICES
DATA RELATED SERVICES
HORIZONTAL AI SERVICES
AI SETUP - AI DEVELOPMENT - AI TRUST- AI TEST- AI NETWORK
VERTICAL AI SERVICES
AGRIFOOD - CYBERSECURITY- EARTH - MANUFACTURING
AI SKILLS
TRAINING AND CAPACITY BUILDING
AI FACTORY INFRASTRUCTURE
Optimized AI Supercomputer
(+ LEONARDO & LISA)
AI Factory Hub facilities

DATA RELATE SERVICES

- ACCESS TO ON-PREM DATA
- EXTERNAL DATA AQUISITION
- MULTIPROTOCOL STORAGE SERVICE
- METADATA ENGINE SERVICE
- SYNTHETIC DATA GENERATION SUPPORT
- DATA ORCHESTRATION

HORIZONTAL AI SERVICES

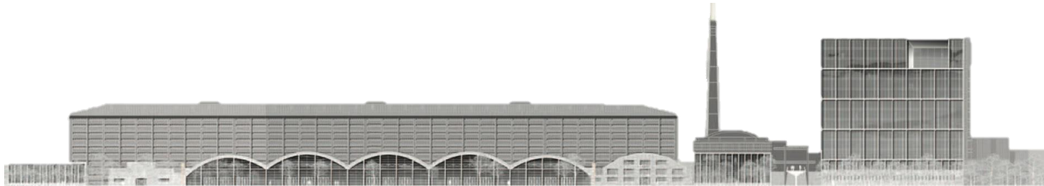
- AI SETUP
- AI TRUST
- AI DEVELOPMENT
- AI TEST
- AI NETWORK

VERTICAL AI SERVICES

- AGRITECH AND AGRIFOOD
- EARTH (WEATHER/CLIMATE/ ENVIRONMENT)
- CYBERSECURITY
- MANUFACTURING

AI SKILLS DEVELOPMENT SERVICES

- AI FACTORY LEARNING PLATFORM
- UP-SKILLING / RE-SKILLING INTERNSHIPS
- HACKATONS
- F2F COURSES

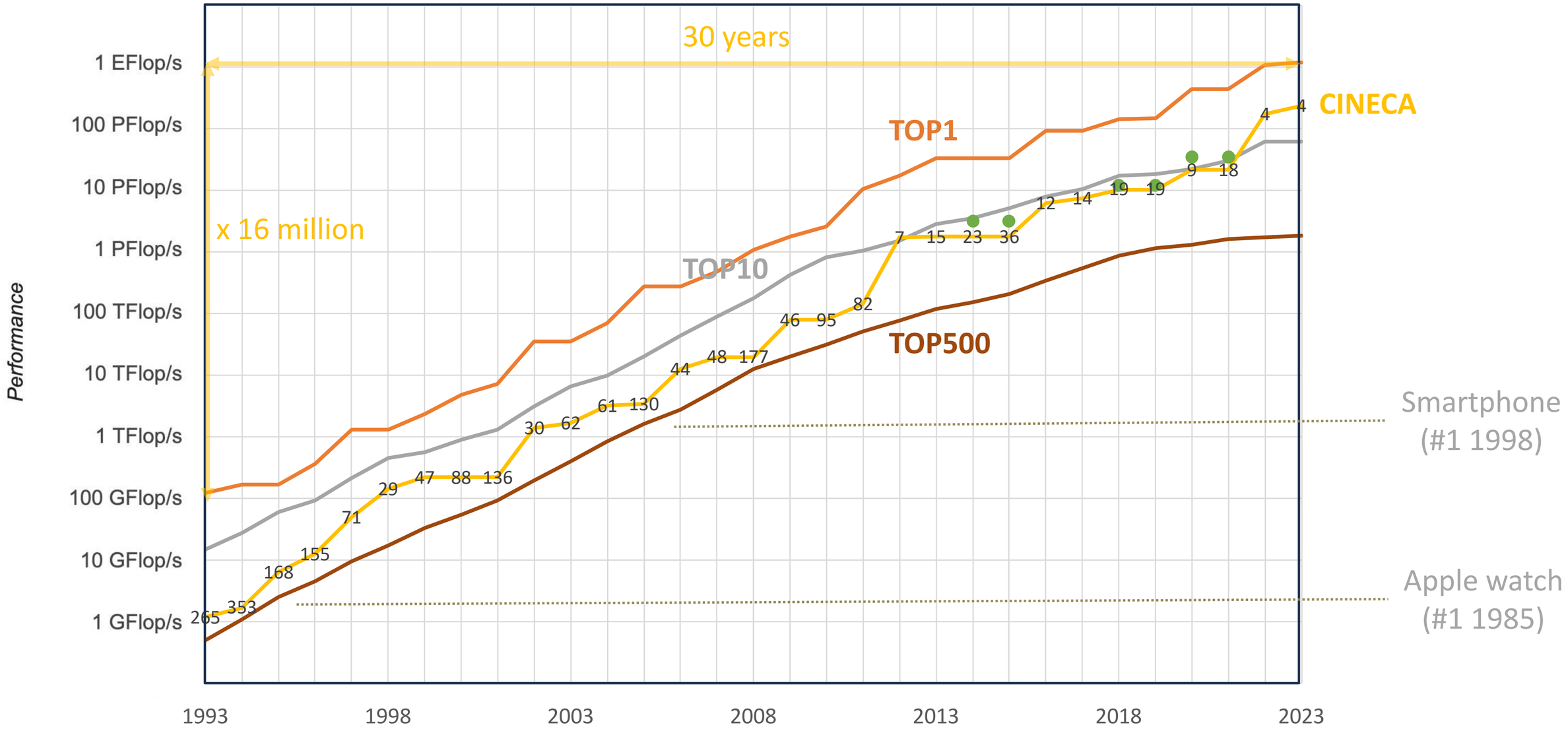


leonardo-supercomputer.cineca.eu

real time check: *hpc.cineca.it*

HOW FAST IS FAST?

250.000.000.000.000.000 FLOPS


30 years
x 16 million
Performance
1 EFlop/s
100 PFlop/s
10 PFlop/s
1 PFlop/s
100 TFlop/s
10 TFlop/s
1 TFlop/s
100 GFlop/s
10 GFlop/s
1 GFlop/s
1993
1998
2003
2008
2013
2018
2023
TOP1
TOP10
TOP500
CINECA
265
353
168
155
71
29
47
88
136
30
62
61
130
44
48
177
46
95
82
7
15
23
36
12
14
19
19
9
18
4
4
Smartphone
(#1 1998)
Apple watch
(#1 1985)

bi-rex
Big Data Innovation & Research Excellence

R&P RONCUCCI&PARTNERS SUSTAINABLE BUSINESS DEVELOPMENT

EVENTO

Tavola Rotonda
Big data, digitalizzazione e internazionalizzazione insieme, come antidoti alla trasformazione economica mondiale.
Coordina **Giovanni Roncucci**, Presidente Roncucci&Partners

Intervengono:
Stefano Cattorini, Direttore BI-REX
Luca Martuscelli, Responsabile strutturazione e monitoraggio partecipazioni SIMEST
Paolo Melone, Responsabile Sviluppo Estero e Internazionalizzazione Imprese – Intesa Sanpaolo S.p.A
Marco Gasparri, CEO AEPI INDUSTRIE Srl
Claudio Canellini, MD SARES MIRAMONDI IMPIANTI SpA

Conclusioni
Stefano Cattorini, Direttore BI-REX
La penetrazione dei Big Data nel sistema produttivo italiano: tecnologie 4.0 e innovazione per lo sviluppo della competitività internazionale

Seguirà aperitivo di networking.