KRATEO

WHERE EFFICIENCY MEETS INNOVATION: YOUR CLOUD, ELEVATED
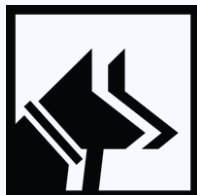
KRATEO PLATFORMOPS

Krateo S.r.l.

Opportunity: increase savings on your IT budget

According to Gartner, Worldwide end-user spending on public cloud services is forecast to grow 21.7% to $597.3 billion in 2023, up from $491 billion in 2022, which is expected to persist.

But here's the catch: an alarming 30% of that spending is estimated to be wasted.

Opportunity: increase savings on your IT budget

Productivity friction when adopting too many tools

▼

Diverging streams
Multiple tools, multiple skill
Increasing costs

Lack of control due to self-service momentum

▼

Slower software lifecycles
Duplicated services
Increasing costs

Cost allocation is a multi-dimensional issue

▼

No custom cost allocation
No cost optimization
Increasing costs

**Digital Transformation
was never meant to increase costs!**

Krateo recognized as a Sample Vendor in the 2024 Gartner® Emerging Tech Impact Radar: Cloud-Native Platforms, DevOps and Software Engineering reports under Platform Engineering category

KRATEO PLATFORMOPS

Krateo mentioned under Platform Engineering category in the 2024 Gartner® reports:

- Emerging Tech Impact Radar: Software Engineering
- Emerging Tech Impact Radar: DevOps

KRATEO PLATFORMOPS

Solution: Krateo PlatformOps

Krateo Composable Operations ➕ **Krateo Composable Portal** ➕ **Krateo Composable Fin(AI)Ops** = KRATEO PLATFORMOPS

Krateo PlatformOps is extensible at any level, from the Portal to the FinOps algorithms, enabling customers to tailor-made the suite to their specific needs, leveraging Generative AI

Product Offering

Krateo Composable Operations

Krateo Composable Operations aggregates existing automation acting as a single one that can be offered as a resource via the command line or the *Krateo Composable Portal*.

Krateo Composable Portal

Krateo Composable Portal is a web portal based on a declarative approach that gives customers the ability to tailor the Portal to their specific needs, i.e., adding new Personas, custom integrations, designing web pages, creating new groups and roles, importing existing processes, etc.

Krateo Composable Fin(AI)Ops

Customers can leverage the *Krateo Fin(AI)Ops Module* to define custom cost models, express budgets for development teams - even for on-premise resources, and extend standard optimization algorithms with custom logic. The framework will suggest optimization that can be actuated via Krateo Composable Operations (if automatable).

Market Analysis

- Gartner affirms that Enterprise infrastructure software spending is expected to reach $457 billion in current U.S. dollars in 2023, registering an annual growth rate of 14.2% in constant currency.

- **Infrastructure software spending is forecast to grow to $761 billion by 2027, with a CAGR of 12.9% between 2022 and 2027.**

- Moreover, **by 2027, more than 70% of enterprises will use Industry Cloud Platforms (ICP)** to accelerate their business initiatives, up from less than 15% in 2023.

Revenue Model

SUBSCRIPTION
MULTI-YEAR

Resource

Any kind of resource managed by Krateo

Resource Management

Krateo has the capability to handle a certain type of resource

Krateo won't charge based on the number of managed resources, but just for the ability to handle them.

Savings

Return of investment
After 6 months

ROI
400%

Competitive Differentiation

We are not writing a new language or a new framework: we are extending an industrial de-facto standard = Kubernetes

We natively implement Configuration Drift

We allow the complete extension of Frontend and Backend – no lockin

We allow enterprise companies to adopt Krateo without expertise on Kubernetes

We can integrate with any existing ecosystem, any cloud provider, any legacy system

Competitive Positioning

FEATURES	KRATEO PLATFORMOPS	harness	ATLASSIAN	vmware	port
Ability to integrate with existing processes	✅	❌	⚠️	⚠️	⚠️
Extensible UI	⚠️	⚠️	⚠️	⚠️	⚠️
Integration with custom backend	✅	❌	❌	❌	⚠️
Custom cost model, custom resources	✅	⚠️	❌	❌	❌
Custom cost optimization algorithms	✅	⚠️	❌	❌	❌
Centralized code build	⚠️	✅	⚠️	✅	✅
Rich integration catalog	⚠️	✅	✅	✅	✅

Customers

insiel

Public Administration

Banca Sella

Banking

GALDI

Manufacturing

MARPOSS

Manufacturing

alpitour.it

Travel&Leisure

TIM

Telco

LEONARDO

Infrastructure Provider

SIGEMI Cloud Managed Platforms

ZUCCHETTI

Software House

USE CASE - Building a Cloud-Native Software Factory
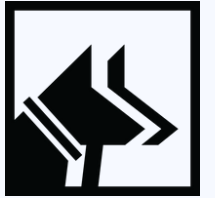
Overview

The key to **deliver high-quality software** quickly and efficiently is adopting an optimized, automated, and scalable environment **for modern software development** that embraces cloud principles.

Problems you can face:
- duality between legacy environments and cloud-native tools that must work together
- increasing friction on the enablement of new technologies and custom developements
- hard time in aggregating different cloud services as a single blueprint

Solution

Build a **control plane to abstract the complexity** of the toolchain and the cloud offering complexity, treating legacy and cloud-native environments with the same approach and providing standard blueprints consumable via a comprehensible platform, Krateo.

Outcome

- **Reduction of heterogeneity** and lowering maintenance tolls.
- **Significant reduction in production** and setup time for objects (clusters, repositories, pipelines)
- **Offering a catalog of replicable templates** whose purpose is to prepare the toolchain to host a cloud-native application
- **Enhancing of the efficiency, scalability and reproducibility** of projects and the establishment of robust processes to support the development, deployment and monitoring of new models

USE CASE - Road to the Industrial Edge Computing

Overview

Industrial Edge Computing is a **powerful paradigm** shift for industries seeking faster, more efficient, and reliable ways to **handle data computation at the source**.
It bridges the gap between cloud computing and industrial environments, enabling smarter, more autonomous industrial operations.

Problems you can face:
- legacy industrial systems may require significant investment to integrate with edge technologies
- coordinating between multiple edge devices and ensuring consistent performance can be challenging
- Complexity in managing and securing a distributed network of edge devices

Solution

Shift to a dynamic cloud infrastructure to enable more efficient operations and better leverage of cutting-edge technologies.

The **Internal Developer Portal allows access to resources** that can be integrated and managed by Krateo, ensuring audibility.

Edge and cloud communicate and are integrated in an extremely flexible way.

Outcome

- **Greater competitiveness** thanks to a faster go-to-market strategy
- **Great increase of deployment frequency** form release updates to new features enhancing agility and responsivness to market demands
- **More frequent software releases** and fewer incidents

USE CASE - Fabbrica Italiana AI

Overview

ModelOps is a framework designed to operationalize and manage AI models effectively across their entire lifecycle, from development to deployment and monitoring. Beyond MLOps, it focuses not just on machine learning models but also on other AI and decision models, ensuring that these models align with business goals, are continuously retrained, and adapt to changing data conditions.

Challenges you can face:
- **Scaling Model Deployment**: Managing large numbers of models efficiently.
- **Mitigating Model Drift**: Addressing declining model accuracy over time.
- **Governance and Compliance**: Ensuring transparency, fairness, and regulatory alignment.
- **Automation**: Integrating and automating model workflows effectively.

Solution

Implementation of a **web self-service portal based on a declarative approach** that gives customers:
- the ability to tailor to their specific needs.
- get access to personalized models.
- get real-time insights about their performance, health, risk, and value.
- include custom cost models, express budgets for development teams, and extend standard optimization algorithms with custom logic.
- the possibility to operationalize models efficiently, and maintain their accuracy and compliance by using systems, tools, etc. to handle key aspects of the model's operational and regulatory management without continuous human intervention.

Outcome

- **Faster AI solutions delivery** thanks to platforms streamlining of the deployment process
- These platforms help **monitor model performance and manage drift**, ensuring that models remain accurate and effective over time
- **Robust governance features**, by maintaining transparency and compliance
- **Better communication** between data science teams and business stakeholders, aligning model outcomes with business goals and KPIs
- **Simplified onboarding** with a unified environment for model development and management, reducing the time invested in onboarding new models and processes
- **Significant cost savings** by optimizing the use of cloud services and AI models, ModelOps

Partners

Lead Investor

INVESTCORP

Marketing Strategy & Tech Brand Positioning
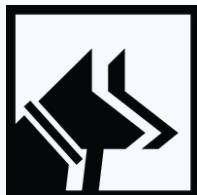
Digital **Inbound Marketing**

Third-party main **events**

Executive Events

Community Events & End User Groups to create more engagement and loyalty around Krateo

Brand Awareness driven by an Expert on the Domain Marketing Agency

Join the CNCF and/or other major foundations to consolidate our community presence as technical contributors & influencers

Team

Giulio Covassi
CEO

Diego Braga
CTO

Marco Trincardi
Director of Engineering

Luca Sepe
Senior Developer

Alfredo Gambino
Senior Developer
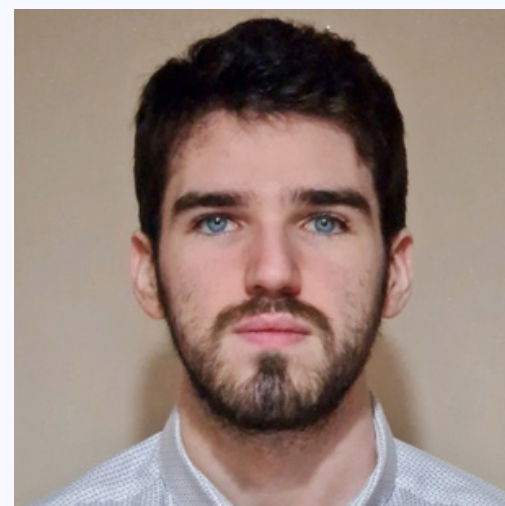
Francesco Lumpp
FinOps Engineer

Fabio Ciucci
Product Manager

Sandro Fiore
Associate Professor UNITN

Matteo Gastaldello
Junior Developer

Board

Giulio Covassi
CEO

Diego Braga
CTO

Pierluigi Scardazza
Sales Advisor

Michele Solazzo
Sales Advisor

Marco Bizzantino
Technical Advisor

Marcello Majonchi
Technical Advisor
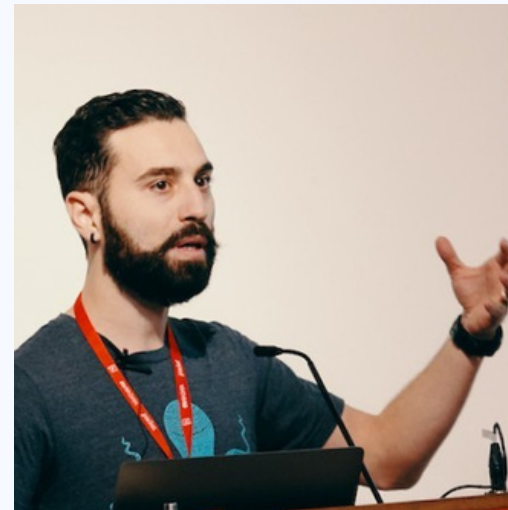
Leonardo Di Donato
Technical Advisor

Lorenzo Fontana
Technical Advisor

Vincenzo Ferme
Technical Advisor

Fabbrica Italiana AI
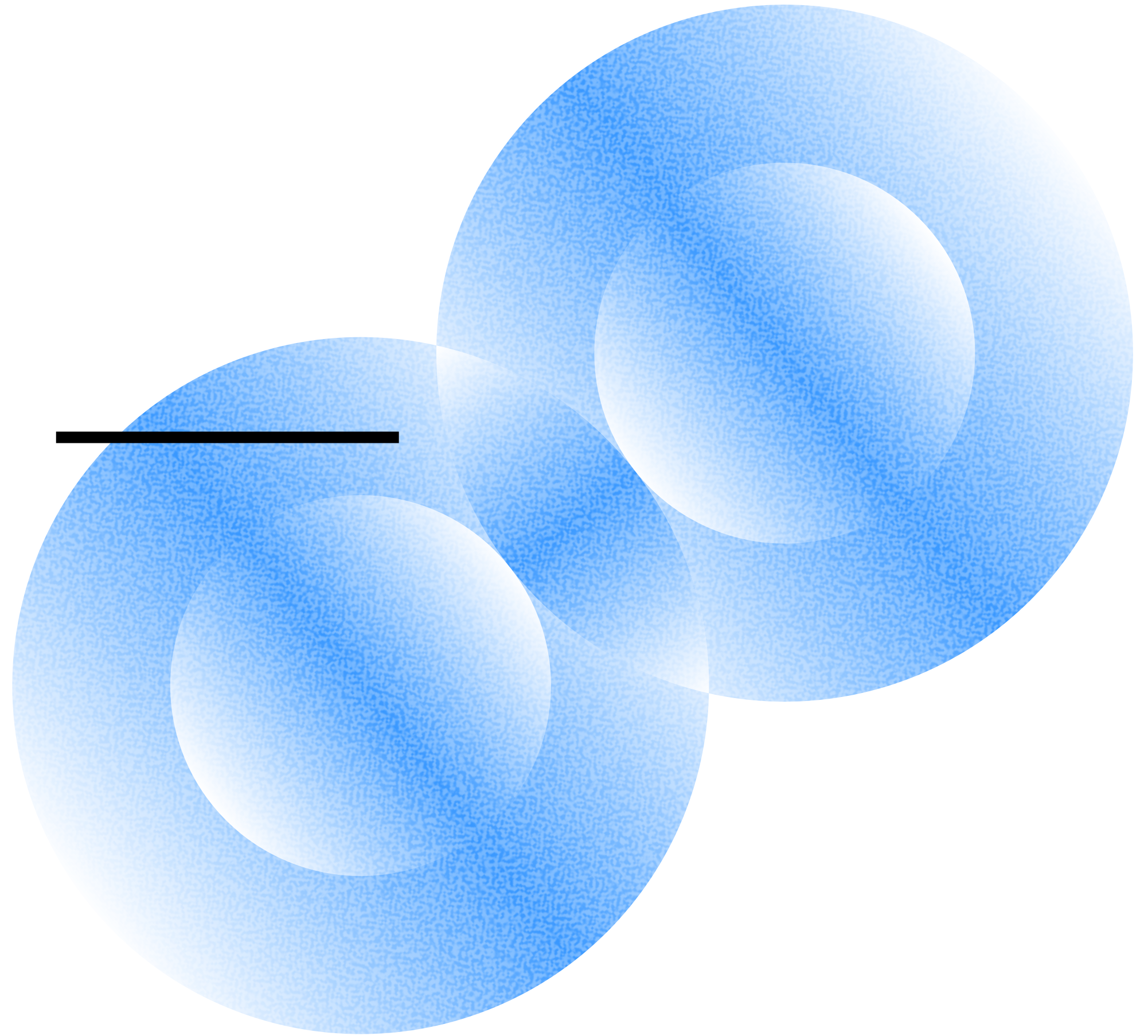
A central control plane to enforce governance of processes and toolchains

For MLOps, AIOps, LLMOps
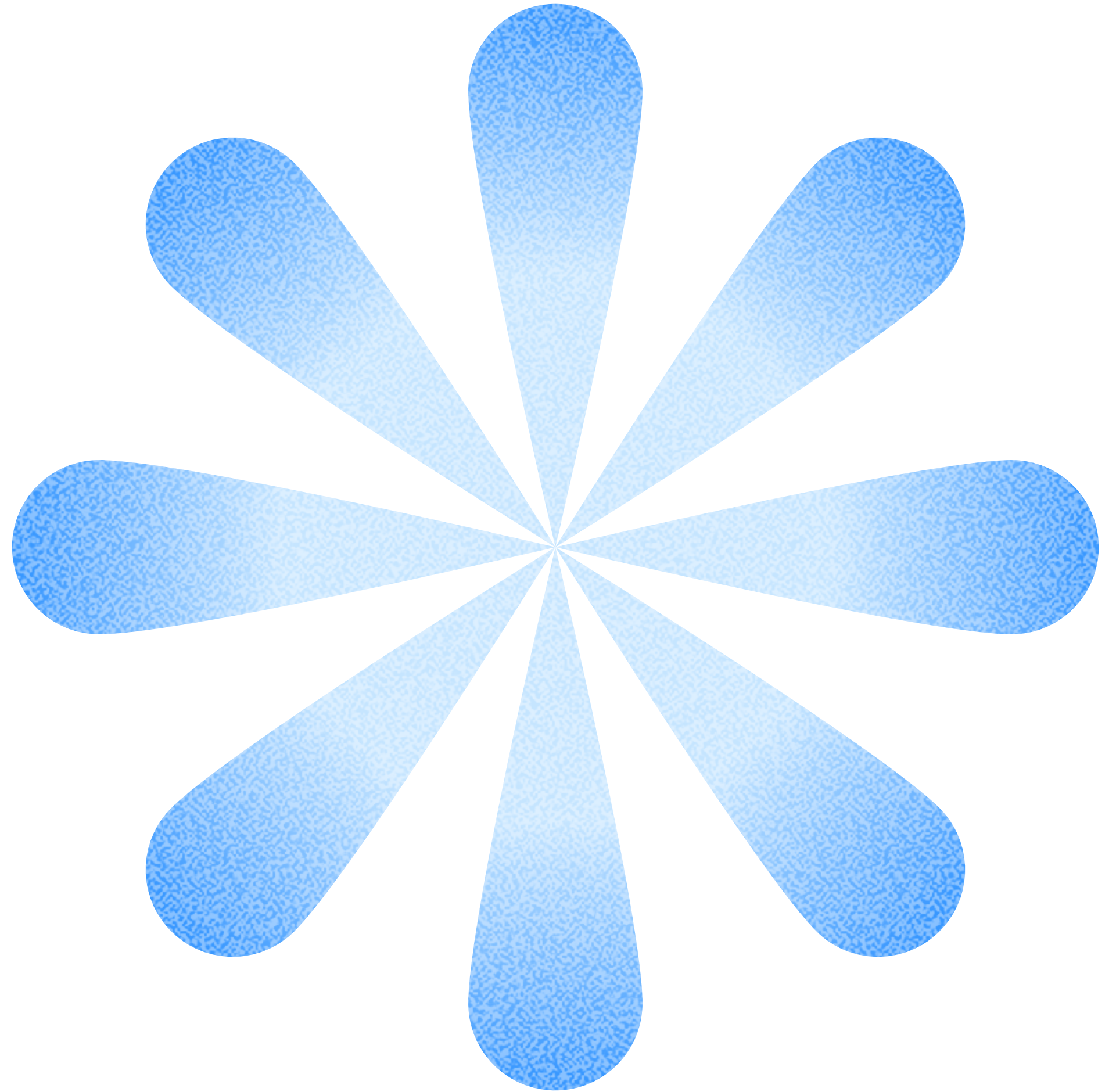
Business Financial Projections

	2025	%	2026	%	2027	%
Revenue	**768.000**	**100,00%**	**1.711.000**	**100,00%**	**3.223.000**	**100,00%**
Direct Costs	-774.075	-100,79%	-1.619.324	-94,64%	-2.504.422	-77,70%
Contribution Margin	-6.075	-0,79%	91.676	5,36%	718.578	22,30%
Fixed Costs	-252.859	-32,92%	-340.161	-19,88%	-523.859	-16,25%
EBITDA	**-258.934**	**-33,72%**	**-248.484**	**-14,52%**	**194.720**	**6,04%**
Net Profit	-259.934	-34%	-253.160	-15%	107.439	3%

Sustainability & Computing
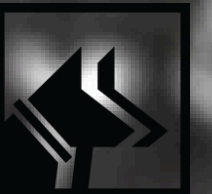
HPCI Lab: mission and main research topics

R&D on **Computational & Data Sciences** applied to **Climate Change** and focusing on:

- Scientific Data Management
- HPC, Big Data and AI convergence
- Provenance Management
- **Sustainability in the cloud & HPC**
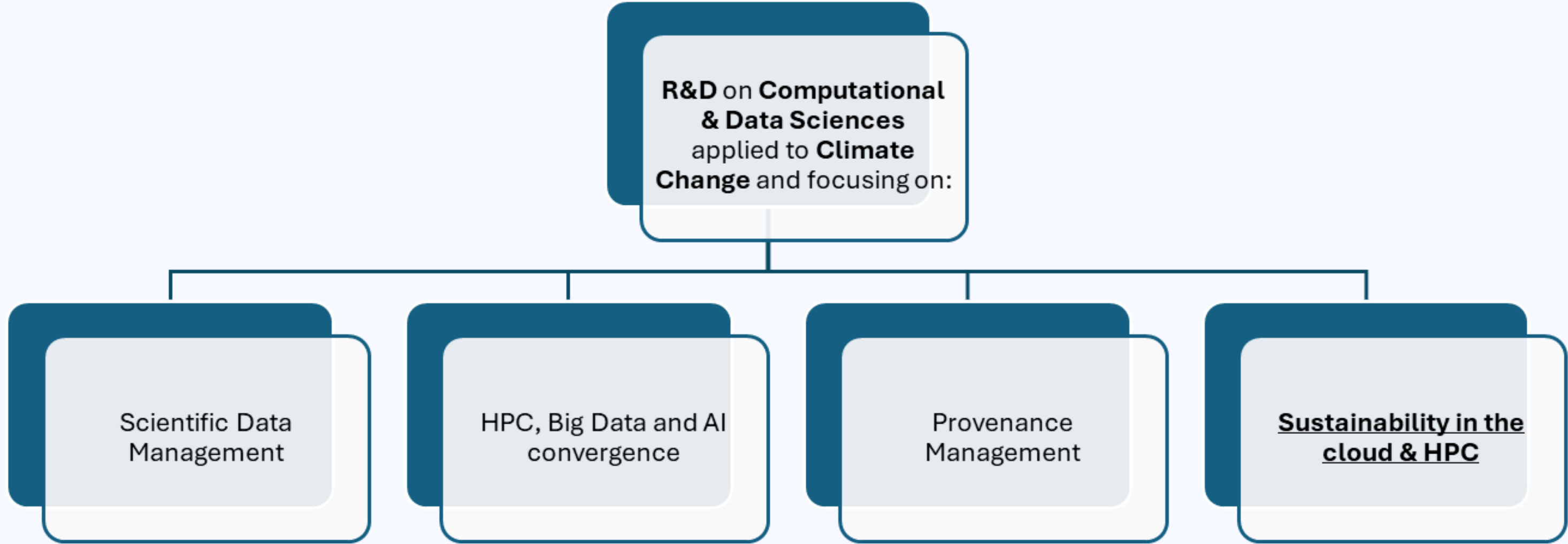
Computational sustainability

Article   Talk

Read   Edit   View history   Tools ∨

From Wikipedia, the free encyclopedia

Computational sustainability is an emerging field that attempts to balance societal, economic, and environmental resources for the future well-being of humanity using methods from mathematics, computer science, and information science fields.[1][2] Sustainability in this context refers to the world's ability to sustain biological, social, and environmental systems in the long term. Using the power of computers to process large quantities of information, decision making algorithms allocate resources based on real-time information.[3] Applications advanced by this field are widespread across various areas. For example, artificial intelligence and machine learning techniques are created to promote long-term biodiversity conservation and species protection.[4][5] Smart grids implement renewable resources and storage capabilities to control the production and expenditure of energy.[6] Intelligent transportation system technologies can analyze road conditions and relay information to drivers so they can make smarter, more environmentally-beneficial decisions based on real-time traffic information.[7][8]

A subtopic of sustainability

Computational sustainability
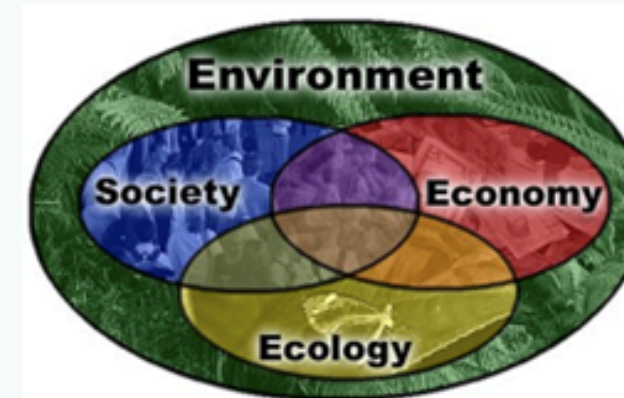
Also relevant to:

Global warming Renewable energy
Sustainable development

Aspects of Computational Sustainability:

Smart grid Sustainable agriculture
Intelligent transportation systems Sustainability

V · T · E

Environmental accountability of AI processes

Can we make our AI processes more sustainable and greener?

What's the number of epochs in the AI training process that ensures the best accuracy possible, constrained by a certain CO_2 emission threshold?

We need **Metrics**

- Accuracy, Energy & Carbon footprint, Time (vs cost & usage)
- Multidimensional

Inform Visibility & Allocation

Optimize Utilization

Operate Continuous Improvement & Operations

FinOps by GreenOps: collaboration with Krateo

FinOps & GreenOps intersect
- Right-sizing
- Turning off unusedresources
- Autoscaling
- ...

GreenOps areas of interest
- Green Software Development
- CO2-based Metrics Monitoring and Reporting
- Efficient Resource Management& AI

GreenOps
- Energy-efficient chipset
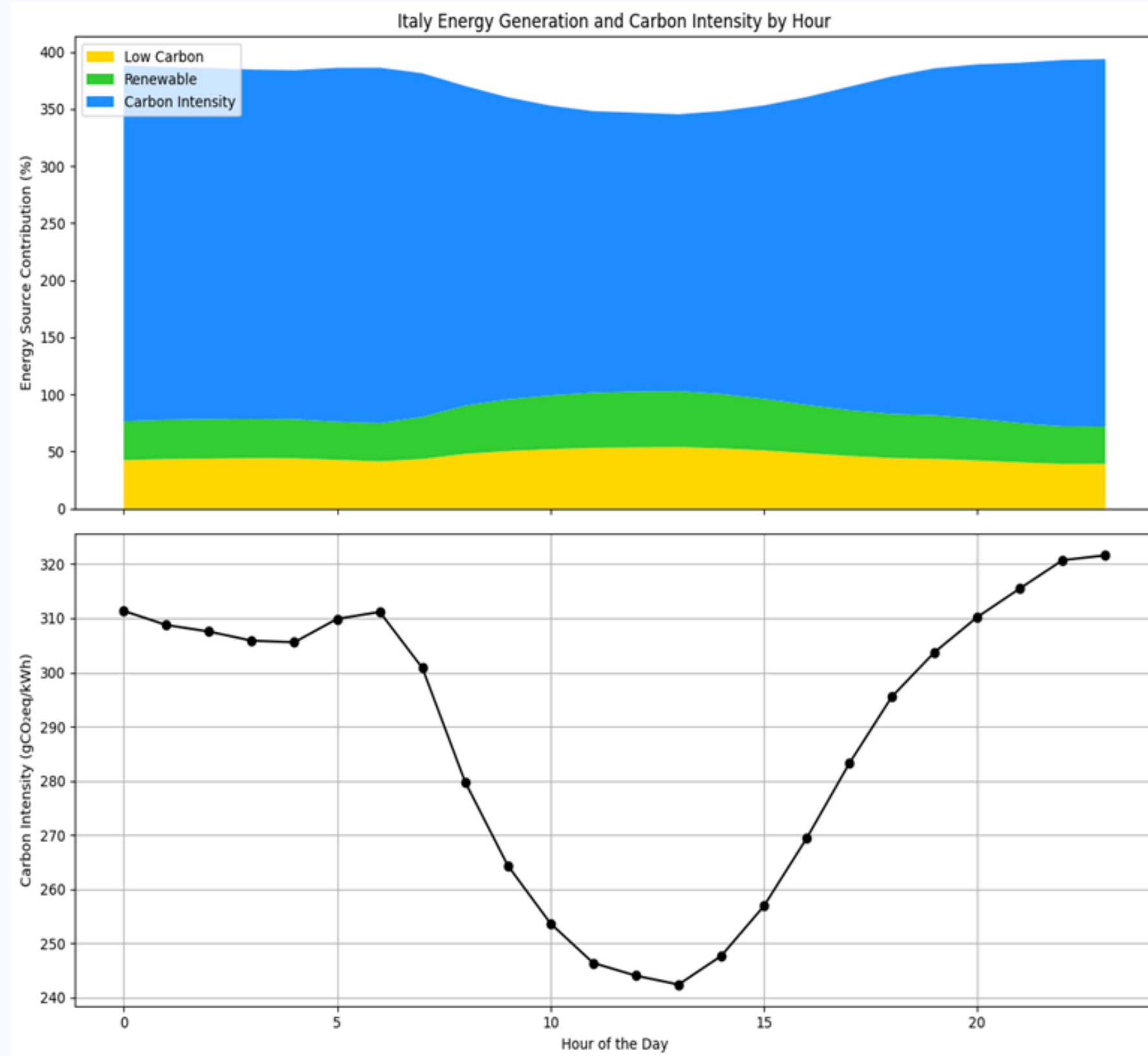- Low carbon regions
- Time-shiftingallocation

Users' requests

Data & AI

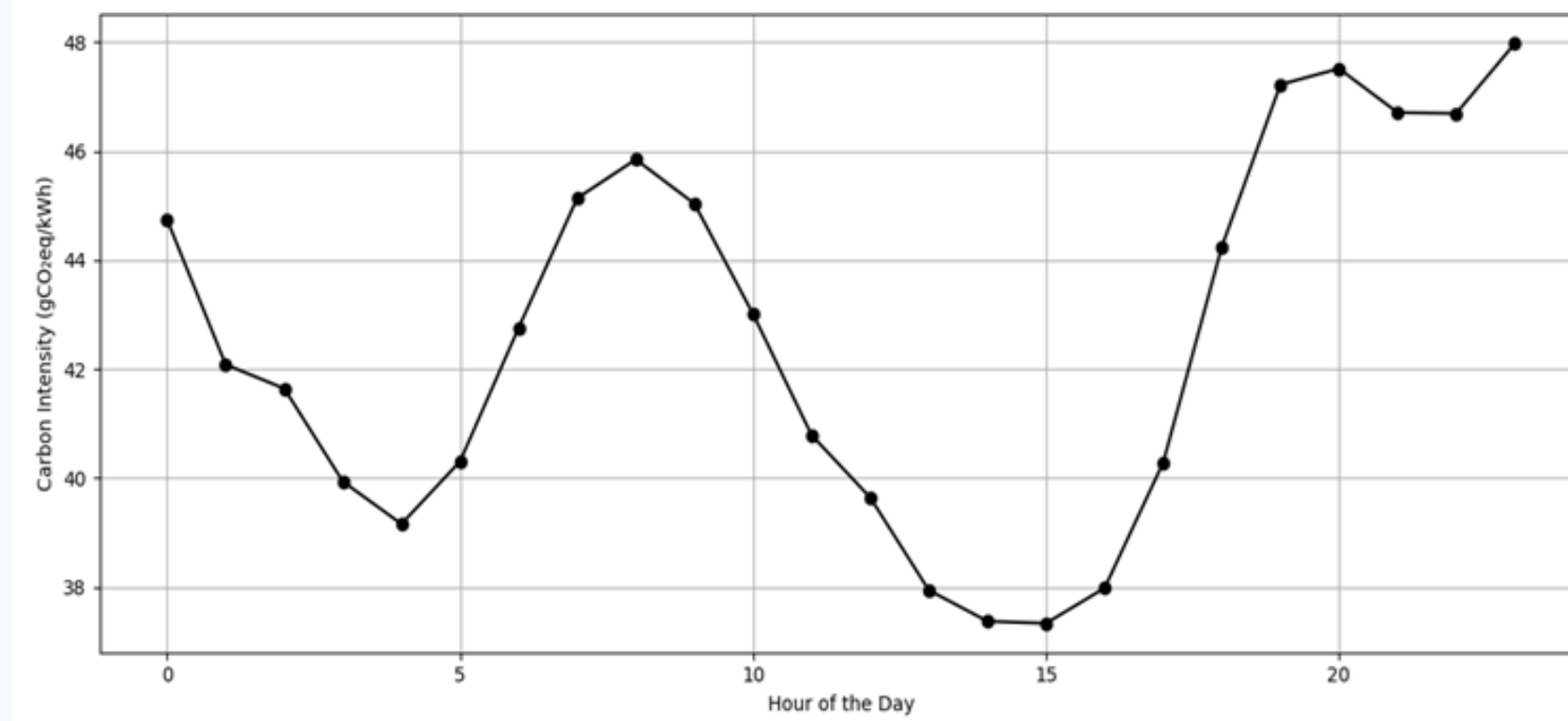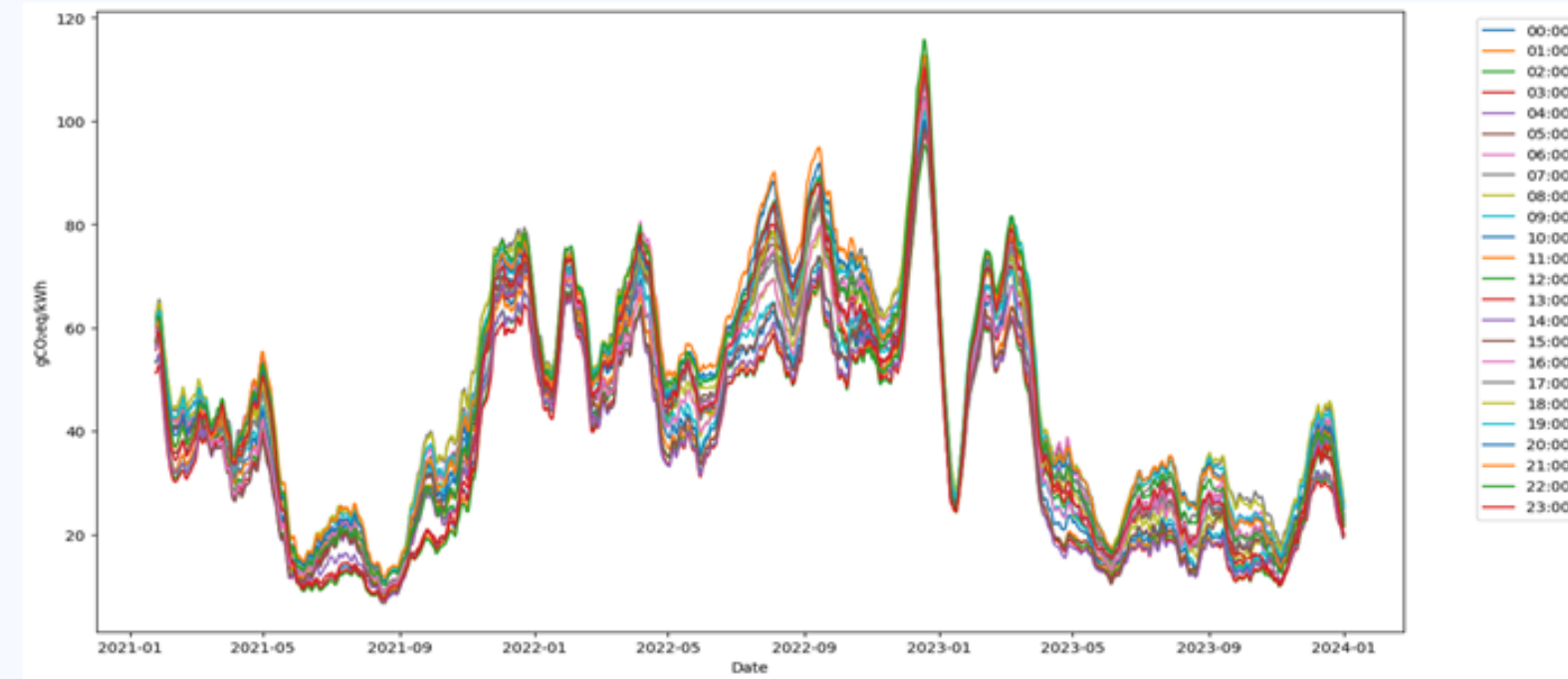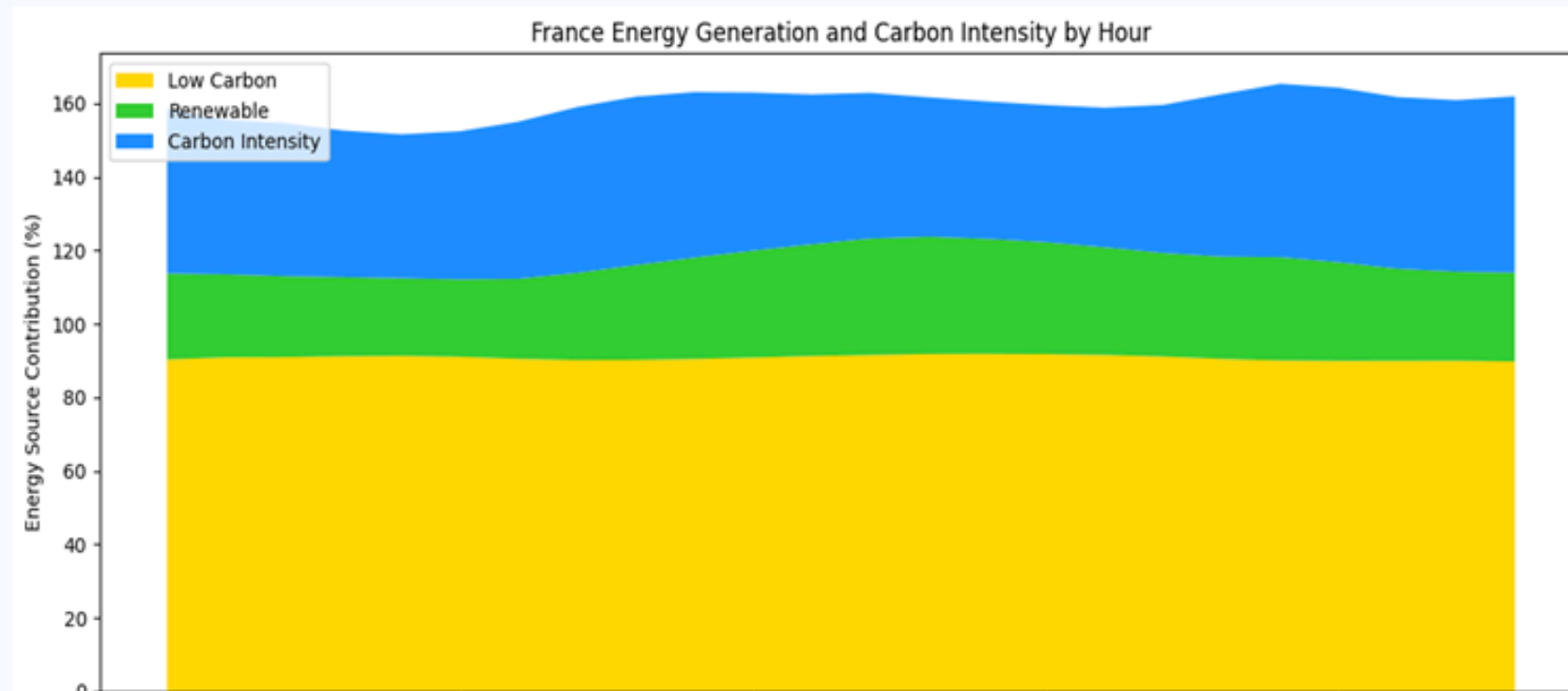Optimal multicloud allocation
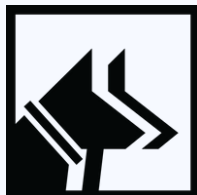
Proposed architecture
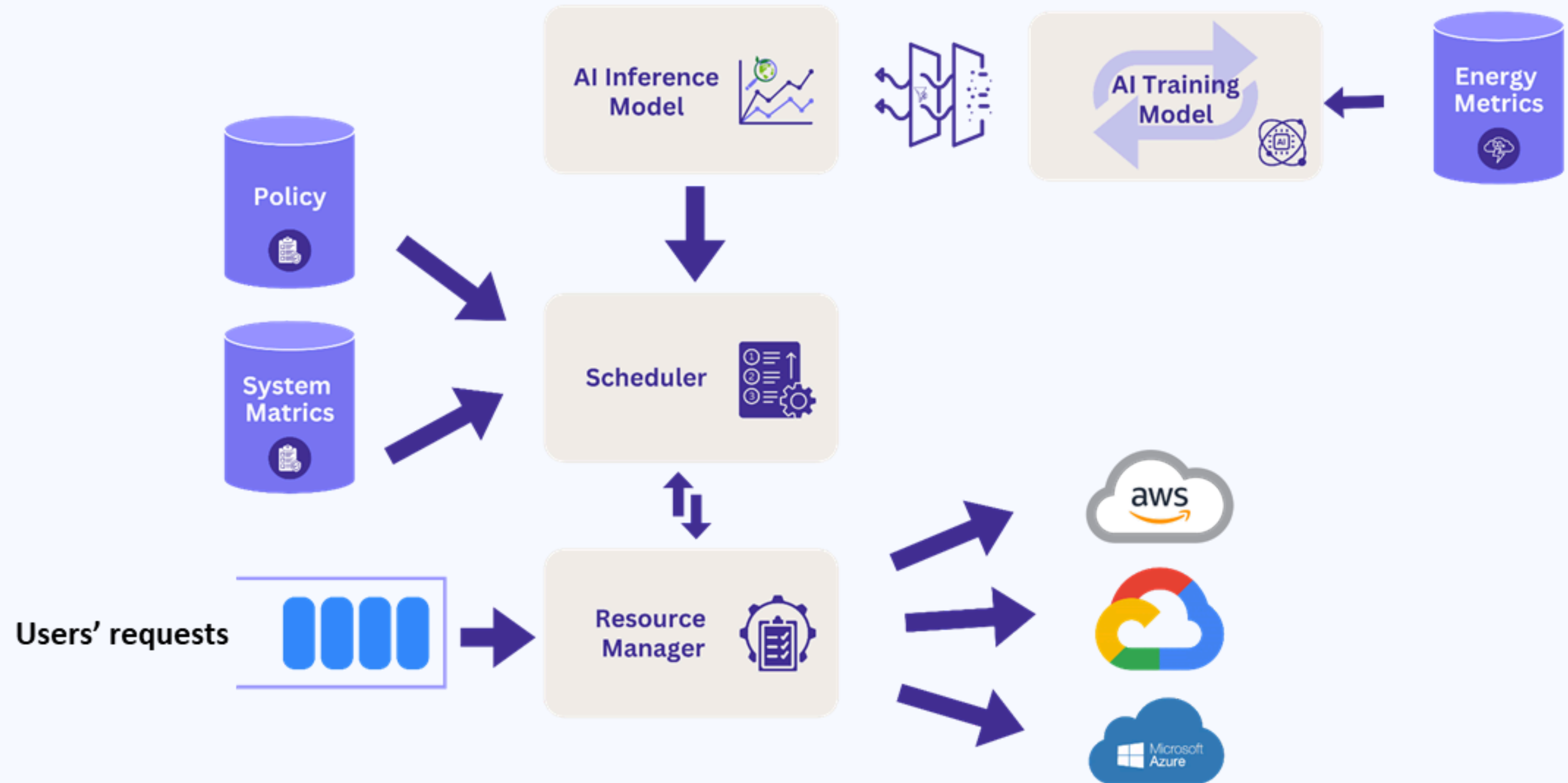
Carbon intensity metrics (01/2021 - 01/2024)
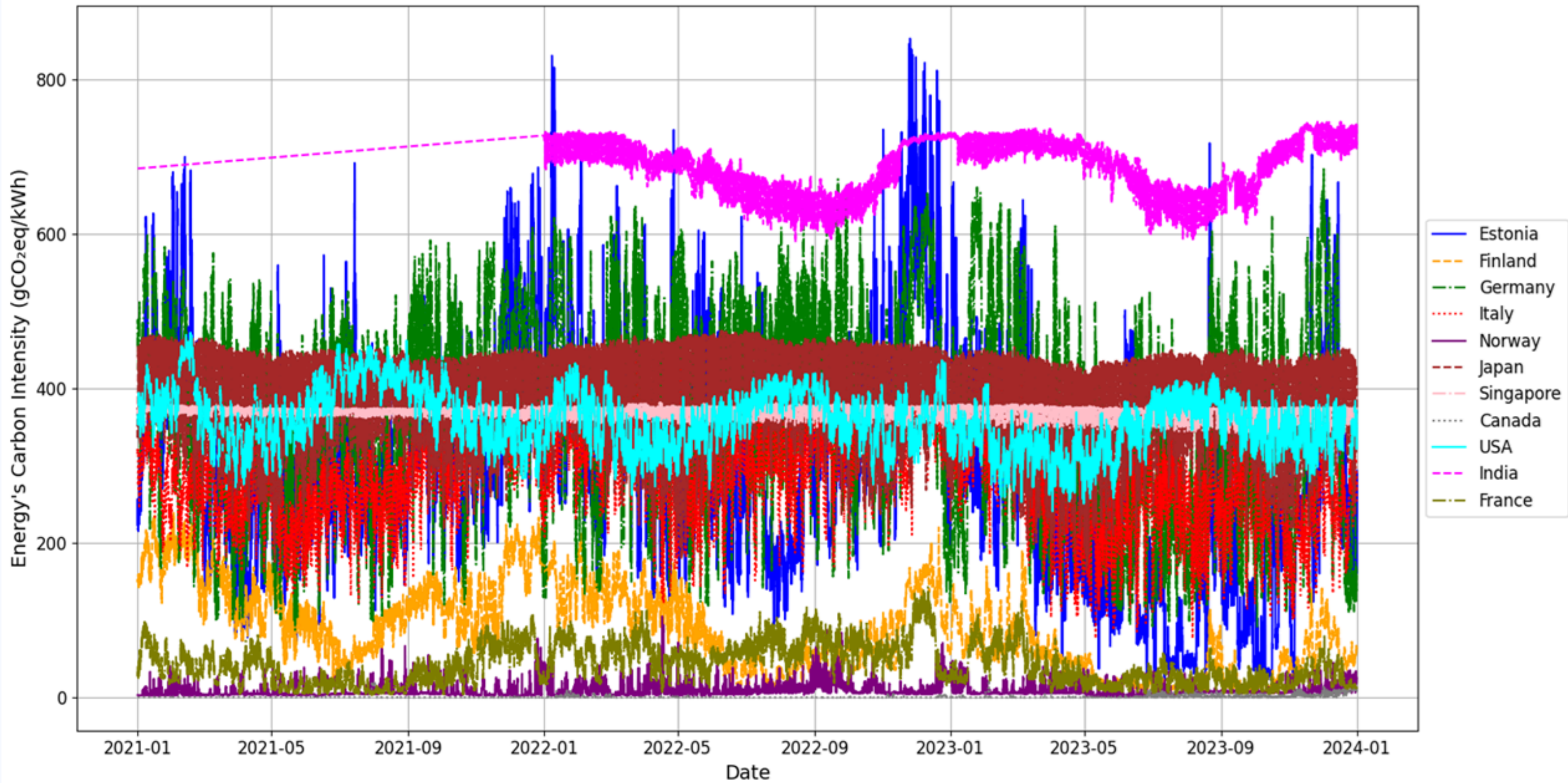
Carbon intensity metrics (01/2021 - 01/2024)
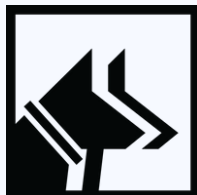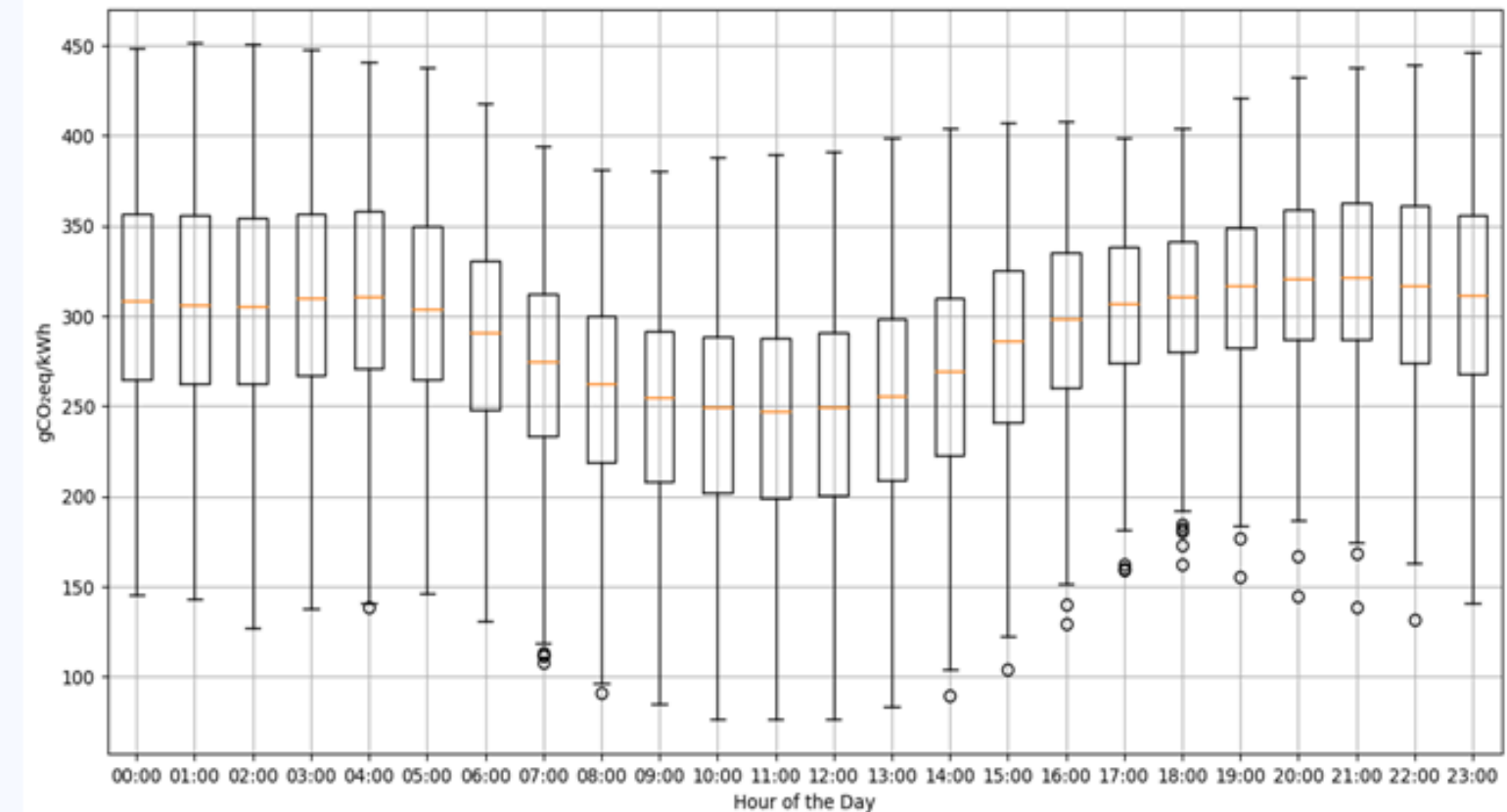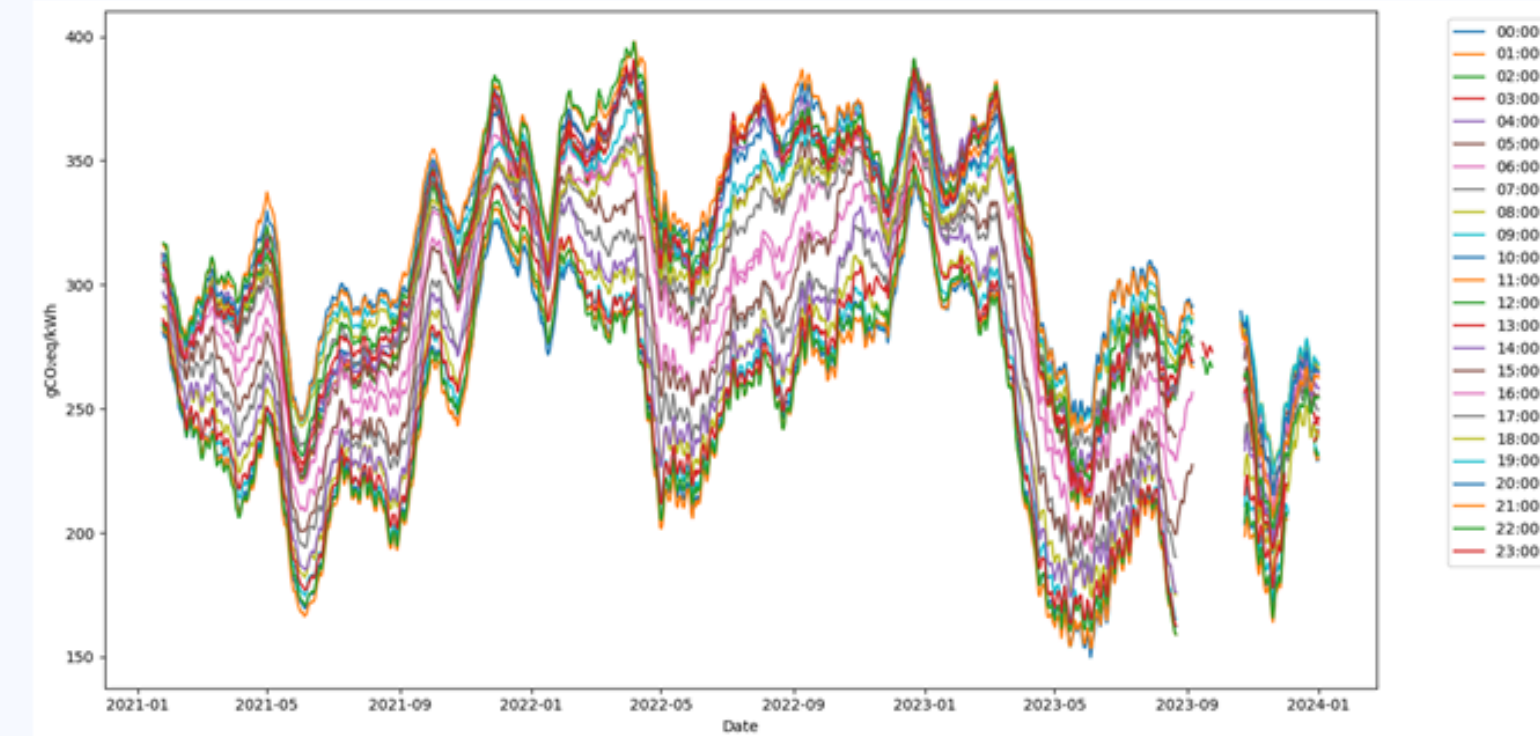
Spatio-Temporal Analysis of Carbon Intensity II (France)
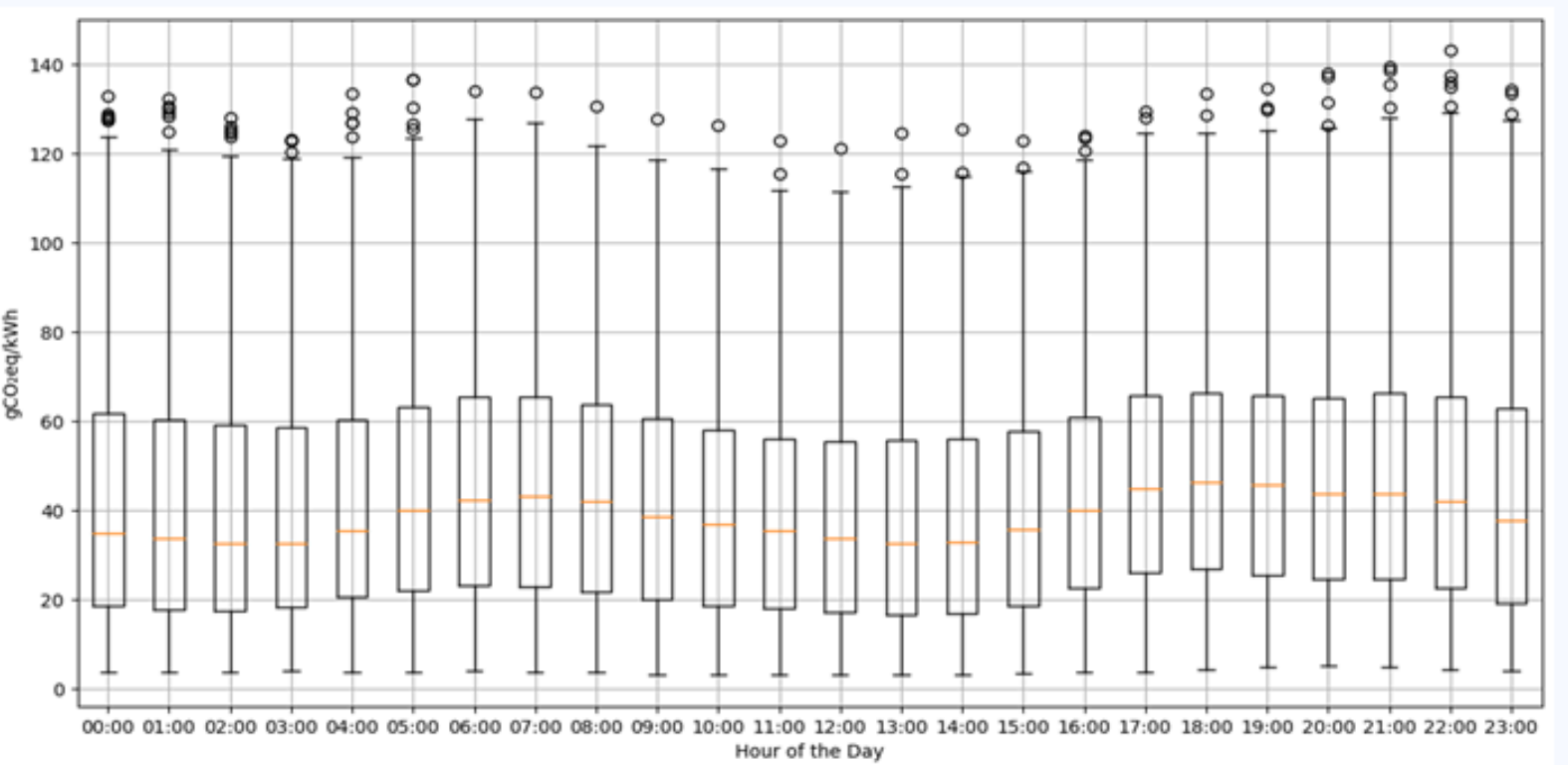
Findings

- **Optimizing cloud resource** allocation based on real-time carbon intensity can lead to substantial reductions in energy consumption.
- **Temporal and regional differences** in carbon intensity were leveraged to schedule workloads in a more sustainable manner.
- **GreenOps vs. Traditional Methods**:
  - **Outperforms existing cloud resource management models**, especially in regions with high variability in energy sources.
  - **AI-driven scheduling and real-time analytics** proves essential in reducing emissions during peak energy periods.

KRATEO PLATFORMOPS at INNOVIT ITALIAN INNOVATION & CULTURE HUB

Krateo among the italian startups invited by Innovit in San Francisco in 2024.

INNOVIT - Italian Innovation and Culture Hub, is the first Italian Innovation and Culture Hub in San Francisco, that selects an exclusive number of italian small companies to learn how to do business in the U.S., in the heart of silicon valley, home to the world's largest Big Tech

Events

Thank You

Schedule 45-minute call to get to know more about **Krateo**

Krateo PlatformOps

Krateo S.r.l.

🌐 **Website**

www.krateo.io

✉ **Email**

contact@krateoplatformops.io

GitHub

https://github.com/krateoplatformops