



GEOVEDA

The **World Greenest** Data Center

We help you achieve the “zero” CO2 impact of your IT

Company Profile



Now & Then


**We are building the
world greenest datacenter.**

Our Mission

To create tangible value through a new generation of eco-sustainable data center with CO2 footprint close to 0.

Our Vision

Continuing to provide the best-in-class solution with 100% full renewable source in the Data Center scenario.



**We are not
messing with the
environment,
we are having a
journey with it.**



GEOVEDA at a glance

Geoveda, an innovative start-up company based in the Geothermal Area of Larderello, is designing and building the first Geothermal Green DataCenter, with a target PUE < 1.1, by offering best-in-class services of Co-Location and Hosting.

The real Green value of this initiative comes from the usage of Geothermal Energy for both cooling and server powering, and the location in a safe environment with no earthquake risk-wise.



Geoveda is Green

We use Full renewable energy sources for cooling and powering the servers by reaching an almost-zero CO2 footprint.



Geoveda is Located in Larderello: The heart of Geothermal Energy

Full-renewable and almost-zero earthquake risk-wise, offering a -80% DataCenter running cost's savings



Geoveda is building a Best-In-Class DataCenter

We have designed and built a Datacenter with a connection up to 100Gbs, with three backup lines, Tier IV compliant.



Our Targets

Aspiring to be a **global example for data center companies with the best technology at its core.**



PUE <1.1

The average PUE of data centers worldwide is 1.67 (Uptime Institute Annual Survey 2019). The basic engineering choices we are making for this project would bring the PUE of the Larderello datacenter at one value valued slightly lower than 1.1, which is extremely excellent.



Fully usage of renewable energy

Direct exploitation of the high enthalpy geothermal energy present in the place for the production of cold air through a specially patented inverter for the conditioning of the server rooms.



Zero CO2 Produced

On the environmental impact side, the data center Geoveda has, thus conceived, an extremely small footprint, as all the energetic fluids in entry are produced without the use of fossil fuels. Furthermore, being positioned close to the energy sources, distribution losses are also heavily reduced. (Carbon Usage Effectiveness) first of class "at an international level.



TIER IV Compliant

Reliability "Fault Tolerant" Tier IV. To obtain the highest level of reliability and availability of the Data Center, a level infrastructure is adopted Tier IV (Uptime Institute) which guarantees a totally "Fault Tolerant" system (all the critical plant infrastructure, under full load conditions, responds in a automatic at each and every first failure, so that the IT environment is not affected).



Maximum level of security

the reliability of the Datacenter is given by a physical security designed specifically to be shielded, as well as being built in an area with zero seismic risk.



Connettivity UP to 100Gbps

The speed of the connection guarantees an upgrade up to 100 Gbs, 3-way with low latency.



Industry PUE's Comparison

In 2020, the average annual power usage effectiveness (PUE) ratio within the largest data centers was 1.59. Data center operators aim to get their PUE ratio as near to 1 as possible, with many of the newest data centers from hyperscale and colocation providers often being much more efficient than older data centers that are harder or more expensive to upgrade to become more efficient.

About PUE

Power usage effectiveness (PUE) is a metric used to determine the energy efficiency of a data center.

PUE is determined by dividing the amount of power entering a data center by the power used to run the computer infrastructure within it. PUE is therefore expressed as a ratio, with overall efficiency improving as the quotient decreases toward 1.

1.29*

Local Provider's average PUE

1.1*

Worldwide Provider's average PUE

yahoo!

Lockport, Niagara County, New York

Google

Most recent datacenters

GEOVEDA
Less than 1.1

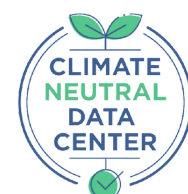
*At least 1.06 confirmed by two preliminary engineering project,

CUE (Carbon Usage Effectiveness)
Top of the class Worldwide

PUE	DCiE	Level of Efficiency
3.0	33%	Very Inefficient
2.5	40%	Inefficient
2.0	50%	Average
1.5	67%	Efficient
1.2	83%	Very Efficient

2030 SDG Compliant

Under the Pact, all facilities must use 75 percent renewable or carbon-free energy by 2025, and be 100 percent carbon-free by 2030.



* Source: internal analysis of Geoveda



Our Technology

Geoveda brought the datacenter market needs.

The digital industry is one of the most energy-intensive. Between 2010 and 2018, their performance grew phenomenally.

According to a study conducted by Science, storage capacity increased 25/30 times, network traffic increased 10 times and compute volumes increased by 550%.

This has generated a 6% growth in energy consumption, 2% growth in greenhouse gases in general, and which by 2025 will consume 5% of energy globally.

This increase is measured by the explosion in the volume of exchanged and stored data, AI, IOT, the strong push to digitization that have contributed heavily to the need for storage and to build ever larger datacenters.

We must continue to work to ensure that data centers are part of an increasingly virtuous and environmentally friendly cycle. Our team of experts started from these sector needs in order to return an effective eco-sustainable and above all scalable response in other countries.

The beating "Green" heart of Geoveda

«HEVI»
High Entalpy Vapor Inverter.

TIER IV, Physically, Logical
Security Guarantee.

Geoveda Geothermal Inverter Pump for Datacenters

- By inverting the hot natural water steam, this turnkey cooling system allows to reach the PUE <1.1 which is one of the best result in the DataCenter's world
- It is an IP (Intellectual Property) owned by Geoveda and can be used for DataCenters or any wide building, which must be located in a high-pressured Geothermal area (5 locations world-wide beside Larderello)
- Now this device can maintain The Geoveda Green DataCenter at a stable internal temperature of 5°C

Services

- The current building is TierIV Compliant with full certifications
- We offer as a Full Space Renting / Co-Location model, either on a "shared" environment or a "private and safe" section
- All Physical Safety assured by a 24/7 patrol
- Logical Cybersecurity based on the Tenant's IT needs/choices (Full Open Source Model)



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Thank You

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