

IBERGRID

2024

28-30 OCT
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13TH IBERIAN GRID CONFERENCE



CESGA Infrastructures Roadmap 2024-2026

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LABORATÓRIO DE INSTRUMENTAÇÃO
E FÍSICA EXPERIMENTAL DE PARTÍCULAS



Infraestructura
Nacional de
Computação
Distribuída



CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS



Actual Infrastructures – CESGA Building

CESGA Building: 900 m² – 1993 year of construction

Datacenter: 340 m², 2.2 MW

Power generator: 1.1 MW

UPS: 2x500Kw

Cooling: 2x630Kw chillers + 300 Kw cold rear rack doors

PUE: 1.47

Actual Infrastructures – IT

FinisTerrae-III Supercomputer - 2021

BigData Cluster (presentation in previous sessions) 2016

On-premises Cloud Infrastructure - 2020

Storage system (Lustre, NFS, Tape Library) - 2021

Quantum technologies (QLM, QRNG) - 2021

QMIO 32 qubits superconducting technology Quantum Computer - 2023

Financial Contributions - 2026

47 MM€ (+VAT)

Spanish Supercomputing Network Funds awarded to CESGA:

Supercomputer

Storage System

Quantum Technologies

Datacenter

Datacenter Building - 2026

New Building around 2.400m²

Can´t share many details, tender Will open shortly... (November)

Most of the space dedicated for the datacenter – 800m²

... and support infrastructures 1.200m²

Offices for technicians, meeting rooms, labs

Support:

- High density racks (>100Kw/rack)

- Standard density racks (< 100Kw)

- Quantum technologies

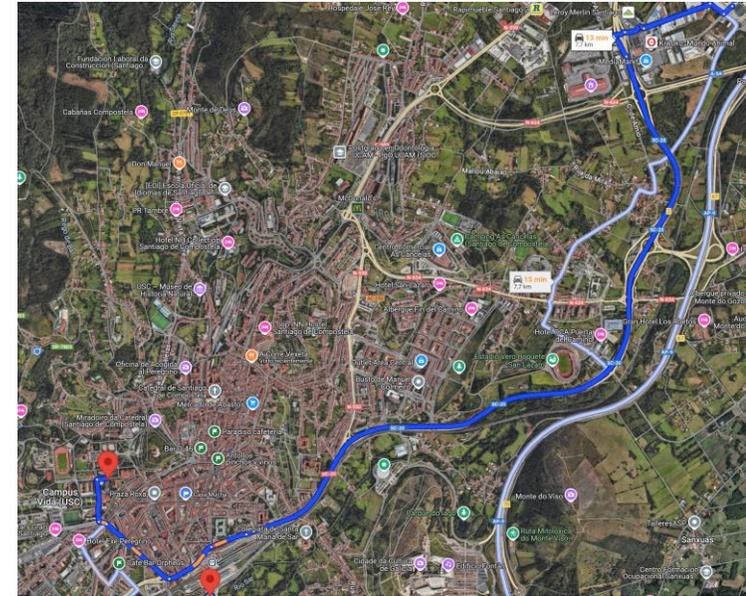
Scalability / Modular

High ceiling (> 4 m)

PUE: 1.15

Building Location

New Building in Santiago de Compostela
Sionlla Industrial park (10 kms apart from CESGA)
2.000 m2 parcel
Press media available



Diez kilómetros en dos milisegundos: así será el nuevo Cesga

Historia de martin garcia pineiro • 1 semana(s) • 3 minutos de lectura



El consejero de Educación presenta el nuevo proyecto del Cesga. Xunta

CIENCIA

El nuevo Centro de Supercomputación situará a Galicia "a la vanguardia" en Europa



Román Rodríguez, en la parcela donde se ubicará el Cesga con directivos del centro, el CSIC y la Xunta.

New Supercomputer - 2026

FinisTerrae – IV

IA – Oriented in design

Tender Will open Q1'2025

Installation in 2026 in the new building

Will co-exist with FinisTerrae-III

New Storage System - 2026

Multipetabyte

Hybrid SSD-Disk-Tape

Bigdata cluster?

HSM

Tender Will open 2025...

Installation in 2026 in the new building

Will co-exist with current tape library

Quantum technologies- 2026

Still to be defined

Complementary to existing Quantum Technologies

Installation in 2026 in new building

Will co-exist with current Quantum Systems

Thanks!

Questions????