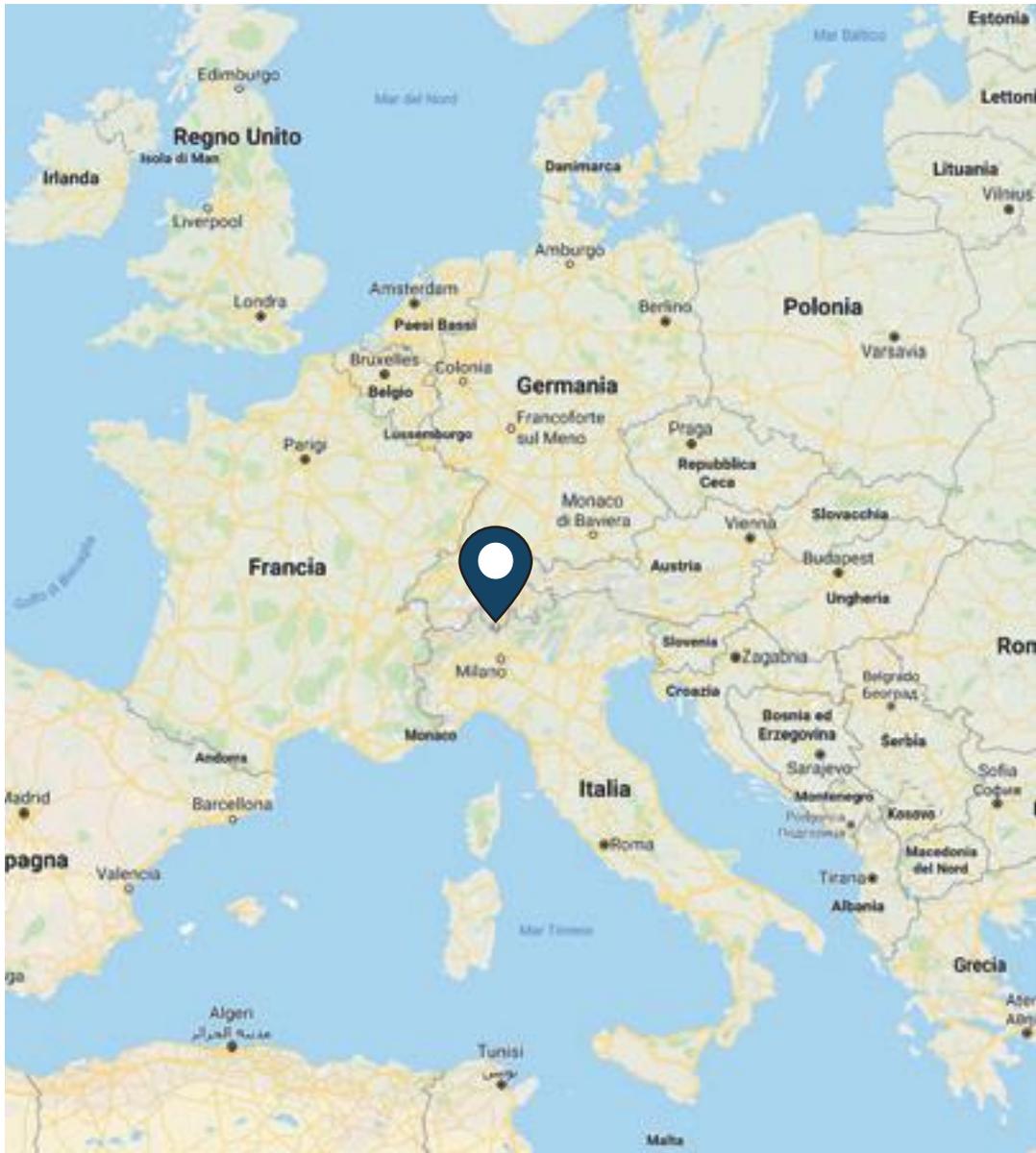




**Secure. Private. Stable.**  
**Your data center in Switzerland.**



### Nearby Bancadati Data Center based in Manno - Lugano

- Lugano** 6 km
- Milano** 86 km
- Zurigo** 202 km
- Ginevra** 440 km

- 1 minute from Lugano Nord A2 highway exit Milano/S.Gottardo
- 3 minutes from railway station Lugano-Ponte Tresa
- 5 minutes from Lugano - Agno Airport
- 5 minutes from Lugano



LUGANO

LUGANO-AGNO  
AIRPORT

 A2  
Milano - S.Gottardo  
EXIT: LUGANO NORTH

  
BANCADATI 



**1** DC1 - 122 Racks - 247 sqm

**2** DC2 - 122 Racks - 247 sqm

**3** DC3 - 38 Racks - 89 sqm

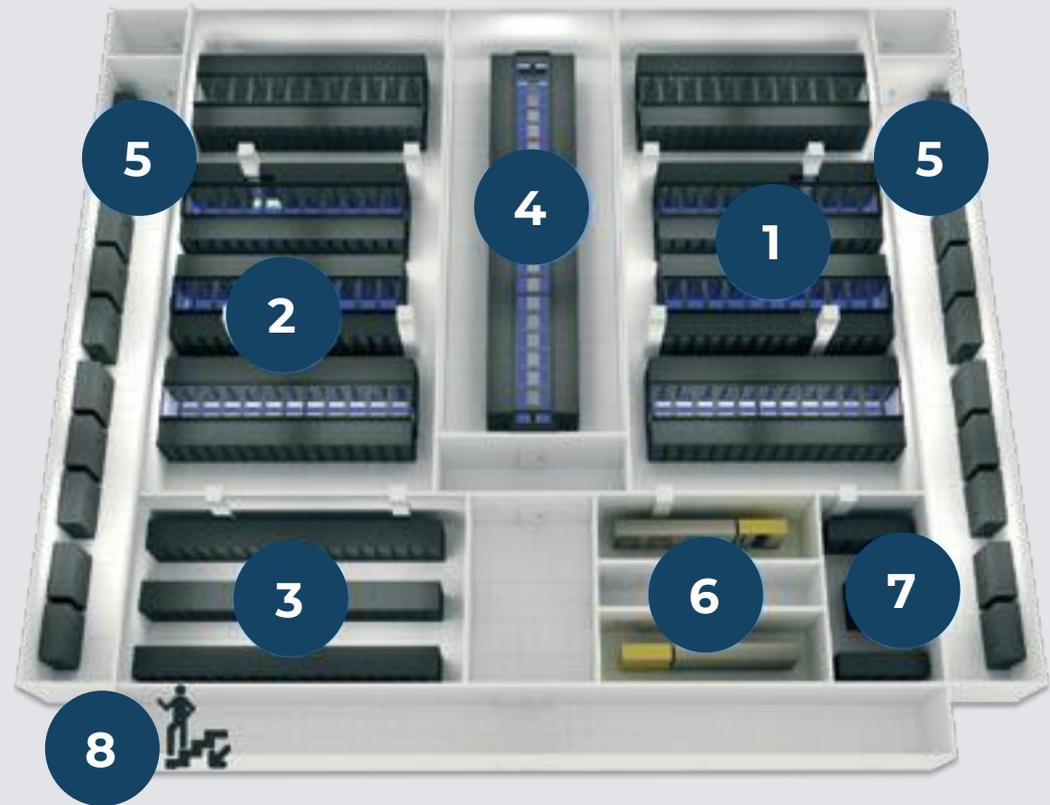
**4** DC4 - 65 Racks - 146 sqm

**5** Fire and cooling System

**6** Electrical Supply A e B

**7** Carrier Room

**8** Technical rooms



# Dati Tecnici

## Address

Via Cantonale - 6928 Manno - Lugano - Switzerland

## Structure

Reinforced concrete - Certified with anti-seismic SIA regulations, class 2

## Civil/natural/industrial risks

The area is not subject to specific risks

## Accessibility

Private road accessibile to vehicles up to 40t

## Parking

Owned

## Classification

Tier-III

## Uptime

Targhet 99,982%

## Dimensions

1'200 sqm Data Center - 1'400 sqm technical rooms

## Expected number of Racks

DC1: 122 racks - DC2: 122 racks - DC3: 38 racks - DC4: 65 racks

## Dimensions of Racks

H 200 cm x L 60 o 80 cm - 42U o 21U

## Position

Cabinets arranged in rows to create a cold corridor with a single air volume

## Cooling

Machines with free-cooling battery and compressor, cooled with ground water (N+1)

## Collection concession

2 redundant wells with a concession of 1'800 liters/min - temp. 12°C/15°C

## Redundancies

Evaporative tower with adiabatic process of 1'500 kWf to compensate the lack of ground water

## Power

Electrical cabinet with medium voltage of 16'000 V connected to 4 transformers of 1MW each

## Distribution

Double separated lines A and B

## UPS

2 groups of 3 UPS of 300 kVA each (N+1)

## Generators

3 Diesel generators of 900 kVA each (N+1)

## Fire detection

Dual sensor detection

## Fire extinction

Multi-area extinction system with Inergen inert gas

## Alarms

Double connection (ADSL + 4G) to the emergency office

## Access

H24 biometric access and RFID tags containing the credentials

## Security

Video-surveillance 24/7 with registration from motion detection

## Optic Fiber Inputs

2 entrances with separate paths

## Certified

UNI EN ISO 9001:2015 - UNI EN ISO/IEC 27001:2017

## Carrier

Colt - UPC Cablecom - Swisscom - Sunrise - Level3

## The Data Center

Our Tier-III Data Center is located in Lugano, in the building Galleria 2 in Manno, where the Swiss Scientific Computing Center (CSCS) and the first supercomputer NEC SX-3/22 "Adula" have been hosted for over twenty years.

Within its more than 2'500 sqm it includes 4 rooms for Co-location, Cage and Private Suite spaces, as well as areas for technical systems. The whole structure is designed with the highest technological standards aimed at energy efficiency and service continuity. All vital installations have been realized with N+1 redundancy, and in some cases with N+2 redundancy, as per Tier-IV planning regulations.

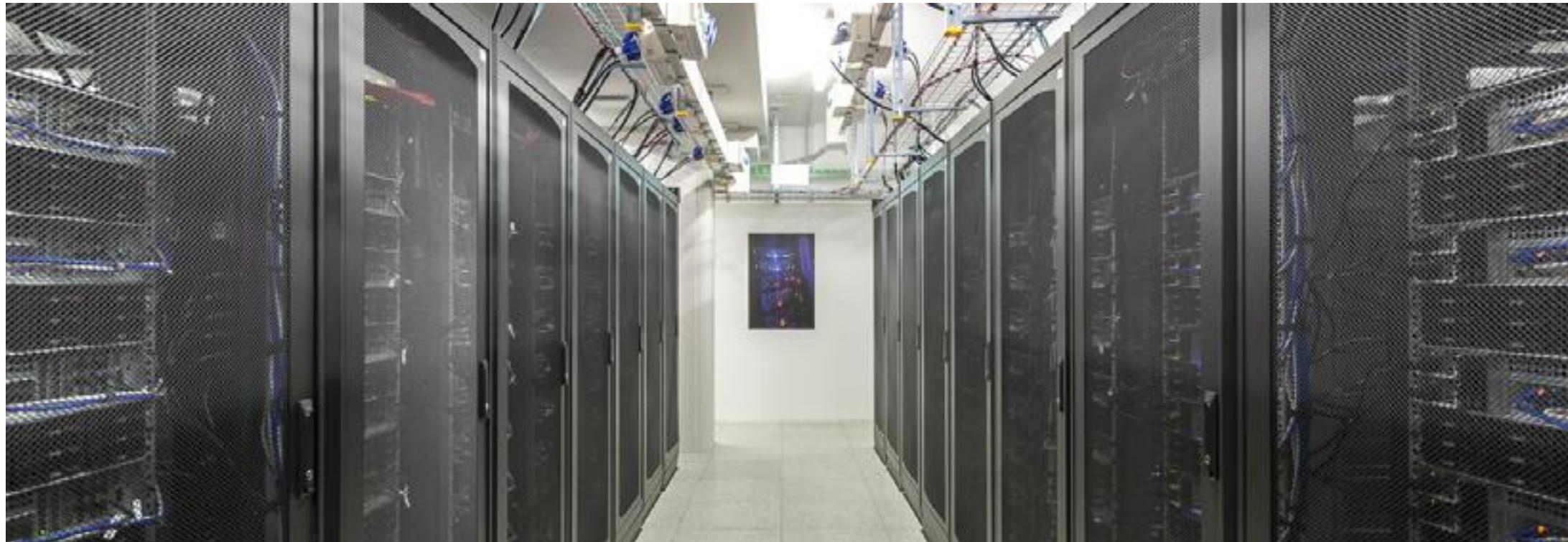


## Data Center space (Rack Cabinets)

Server cabinets are installed on a raised floor and organized to create an isolated cold passage that receives fresh flows from below through a single air volume.

In this way, warm and cold air cannot mix, thus ensuring great energy savings.

Each room is set up with its own autonomous machines, independent from each other, which self-adjust based on a predefined temperature set-point.

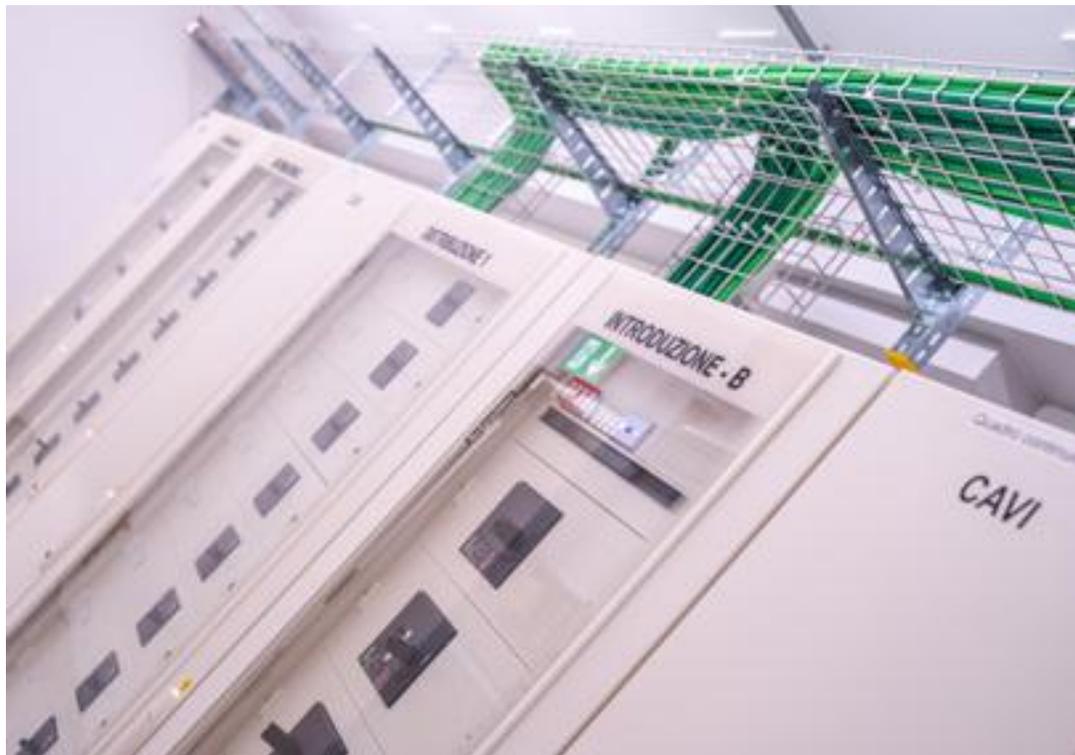




## Cooling System

The rooms' cooling system uses ground water which, through two redundant wells with a collection concession of 1'800 liters/minute, provides water between 12°C and 15°C to the server-cooling machines. An evaporative tower with adiabatic process of 1'500 kWf guarantees the continuity of service in case of well breakdown or maintenance.

An air/water heat pump produces chilled water at 9°C stored in a 30'000 liter tank, allowing HIROSS cabinets to cool up the UPS, the electric panel and the electric transformer rooms when necessary. In case of breakdown of either the HIROSS or the chilled water-producing machine, split refrigerators of 15 kWf are employed in the UPS rooms.



## Electricity supply and distribution

Electricity supply is guaranteed by a medium voltage input with a substation of 4 transformers of 1'000 kVA each. Likewise, 4 main electrical panels distribute energy to the Data Center on redundant and separate lines that, as required by Tier-IV planning regulations, follow different paths.

The secondary distribution electrical panels, like the previous ones, bring power to the server rooms, where each rack receives redundant power from two distinct and completely separate lines.



# Uninterruptible Power Supply (UPS) and Engine-generators

In case of power failure, two groups composed of 3 UPS of 300 kVA each, guarantee power supply continuity to the Data Center for 10 minutes at full load. Within one minute from the power failure, Diesel engine-generators of 900 kVA each come into operation, providing the necessary energy for the whole Data Center.

Thanks to the possibility to supply power while the system is working, electricity supply is guaranteed even during long blackouts.





## Fire Detection and Automatic Extinguishment System

The Data Center is provided with a double-sensor detection system, as well as an automatic extinguishment system with 42 tanks of Inergen inert gas, which is harmless for both people and machines.

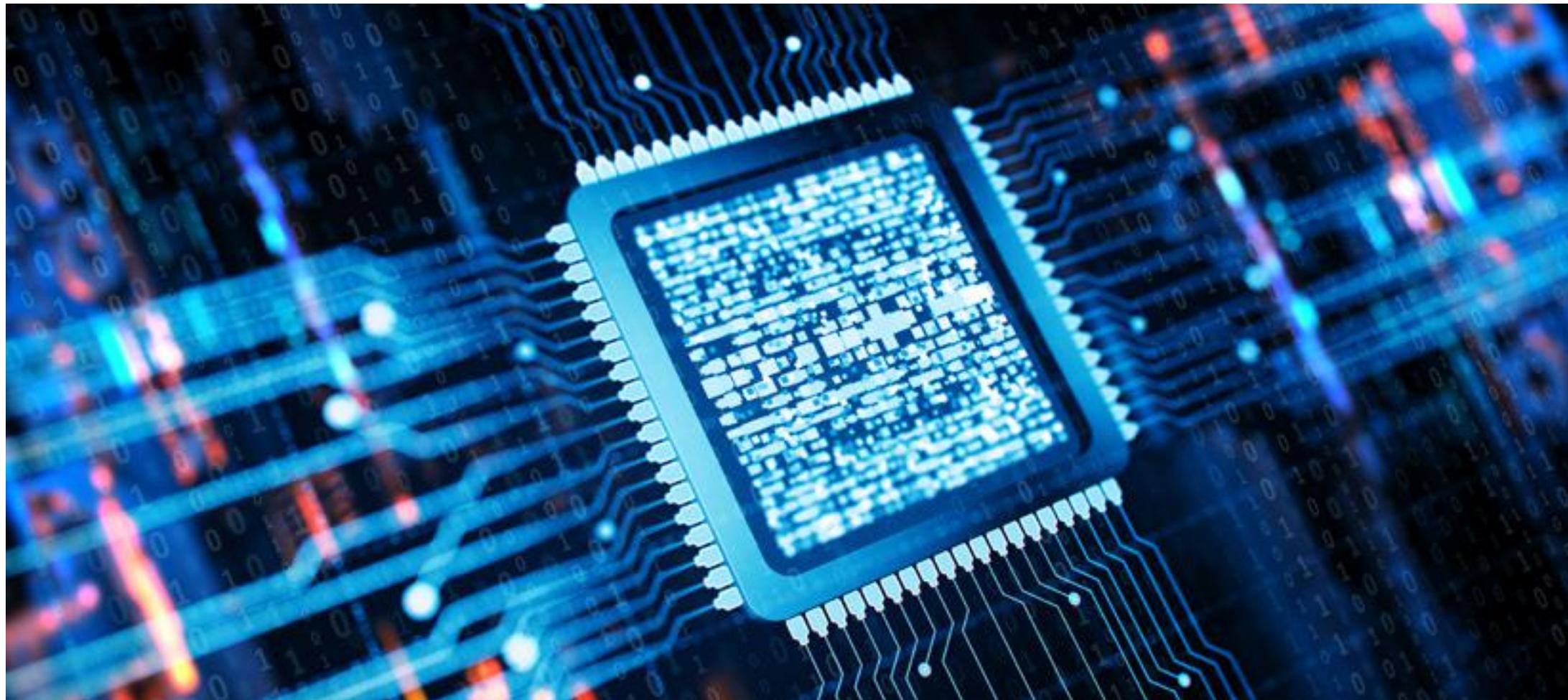
The double detection sensors can exactly identify the area, among the 14 sections, where the automatic extinguishment is required: in a few seconds, the system distributes the gas with a modulated pressure of 50 bar. The cooling systems keep working, thus ensuring the temperature set-point is maintained.

## Automatic management and monitoring systems

The Bancadati automations are composed of two different management systems, one for the hydraulic part and the other for the electrical and security part.

The first one is a Siemens Telemangement system, that controls and carries out all the automations related to the hydraulic system, while the second one is a PLC Telemangement system, especially developed for the Data Center, that controls and manages all the automations related to the electrical system and security.

In case of breakdown, both systems send alarm warnings to a breakdown management office, which guarantees emergency intervention within 30 minutes.





## Security

It is possible to autonomously access the Data Center 24/7 through biometric controls and RFID tags which contain the credentials. The entire Data Center is monitored 24/7 through a video-surveillance system with registration activated by motion detection and H24 assistance.

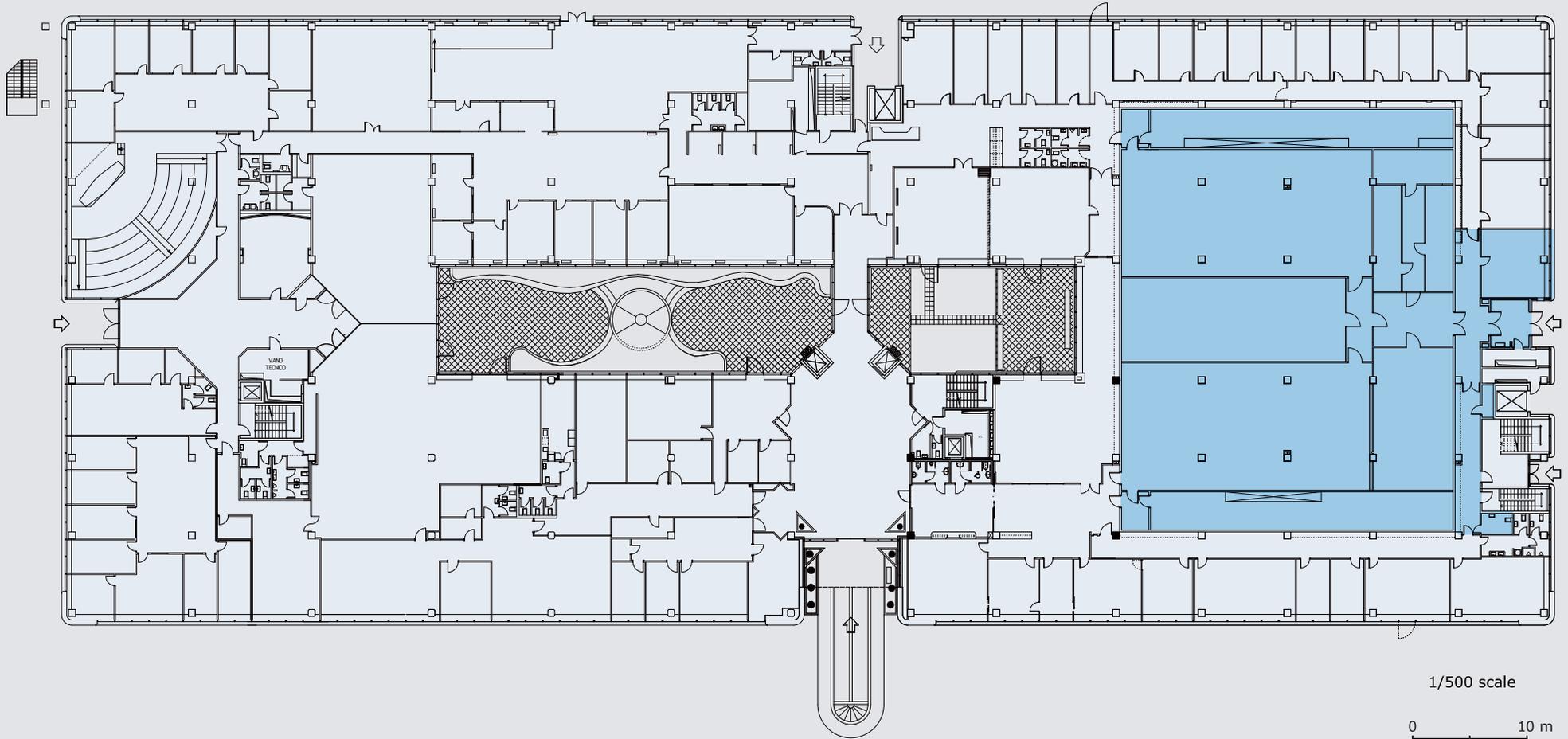
## Telecommunications

In the Data Center there is a dedicated room specifically set up in order for the different Telco operators to offer their services directly to clients. Moreover, there is a meet-me-room for the clients to interchange with various possible wiring (fiber, copper, etc.).

All major Swiss operators (Swisscom, Colt, Sunrise, Upc) are present in the carrier room.



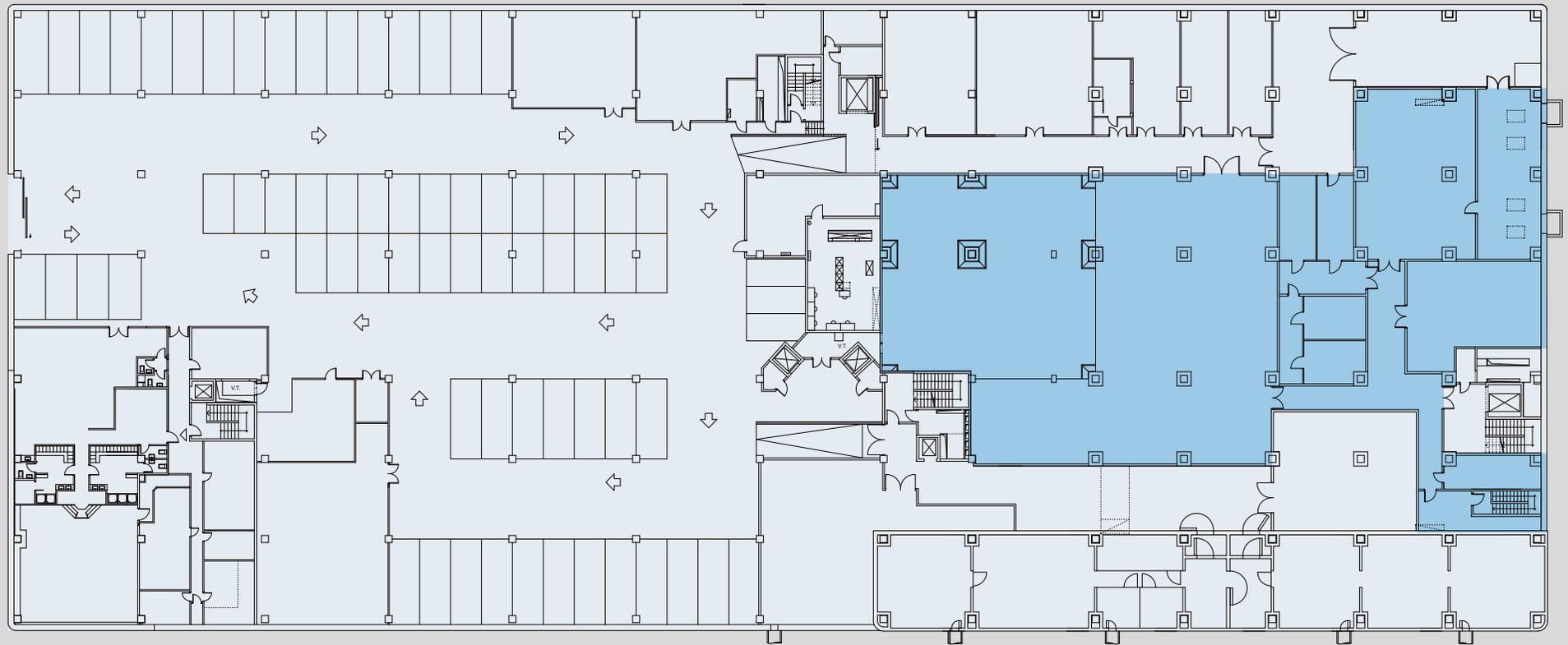
# Data Center area ground floor - 1206 sqm



1/500 scale

0 10 m

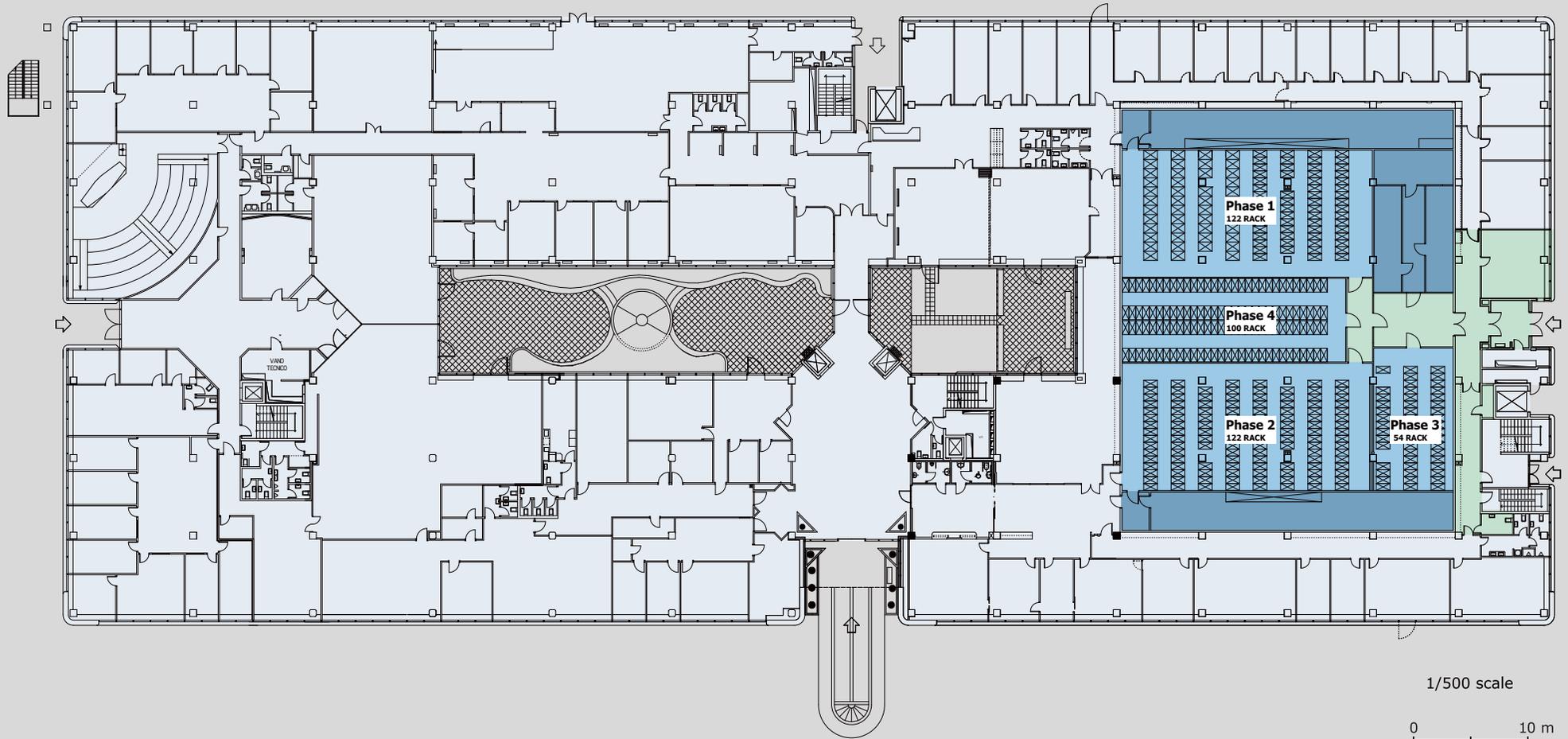
# Data Center area basement - 1385 sqm



1/500 scale

0 10 m

# Data Center internal division



1/500 scale

0 10 m

- Server rooms
- Common areas
- Technical rooms

A photograph of a server rack with glowing green lights and a white logo overlaid in the center. The server rack is dark with a mesh front, and the lights are arranged in vertical columns. The logo consists of two overlapping circles with three dots between them, positioned above the text.

BANCADATI



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