

AI Data Center and Greenhouse Complex near Hrazdan

An ADKARS project in Armenia. Heat from the data center will warm the greenhouses.

Architectural concept

Project scale



50,112

NVIDIA Vera Rubin Ultra accelerators

≈ $9 billion

ADKARS estimate of investment in the data center

The project aims to build the South Caucasus's largest AI data center near Hrazdan.

How 50,112 accelerators work together

87 × 576

87 groups of 576 accelerators each. Within each group, GPUs exchange data over NVLink.



Up to 100 trillion parameters

Target size of the AI models the center will process across multiple GPUs.

One NVL576 group contains 8 times as many GPUs as a GB300 NVL72 group.

Dry cooling in Hrazdan’s mountain climate



238 MW

IT equipment power demand

257 MW

Total facility power demand

1.08

Target power usage effectiveness (PUE)

The design calls for coolant to enter the servers at about 45 °C. In cool weather, dry coolers release heat into the outdoor air, reducing the need for compressor-based cooling.

Server heat for 200 hectares of greenhouses



Electricity powers the servers. Coolant absorbs the heat they generate, and heat exchangers transfer it to a separate greenhouse heating circuit.

≈ 200 ha

Planned greenhouse area next to the data center

How the automated greenhouse will operate



Greenhouse climate control

AI uses sensor data to adjust temperature, humidity, ventilation and irrigation in each zone.

Moving the harvest

Robotic carts collect crates alongside the growing rows and deliver them to the packing area.

Lower greenhouse heating costs



25–30%

Target reduction in the average cost of producing greenhouse crops

Heat from the data center will replace some of the heat the greenhouses would otherwise buy. The savings will depend on the crop and how much heating it needs each season.