

## Press release

# First steps in the creation of Trentino Data Mine

The 50 million project, funded by the NRRP, is starting to take shape these days with the signing of the partnership agreement. The new company, led by the University of Trento, includes Covi Costruzioni, Dedagroup, GPI and Isa. As a unique case at national level and one of the few in the world, the green data center will be located in the former mining site of San Romedio, an environment that will ensure protection from electromagnetic pollution, data security, energy and soil savings and sustainability. The goal is to become a European reference point for digital innovation, especially in the areas of health, artificial intelligence, IT and financial security, and the management of large amounts of data.

Trento (Italy), 22 September 2023 – Trentino Data Mine (TDM), the infrastructure project funded by the NRRP for the creation and development of a strategic innovation hub in Val di Non, takes a new step forward: the company that will manage the activities necessary for the construction of a green datacenter in the underground tunnels of the San Romedio mine was established today in Trento.

The datacenter in fact will be run by a public-private partnership led by the University of Trento, which also has the scientific responsibility and guidance, with a "temporary association of companies", selected through a public tender, including Covi Costruzioni, Dedagroup, GPI and ISA. The partnership will design and build the infrastructure, purchase the necessary machinery and equipment, and run the Data Center.

The project is part of Mission 4 of the NRRP "Education and research - From research to business" and will last 36 months. It will cost 50.2 million euro, 18.4 million of public funds and about 31.8 million collected through private investments. The largest item of the investment (about 18 million) is for the construction of the technical infrastructure in the mine. The return on investment is expected within 15 years of the start of the project (2023-2037).

Spanning over 80,000 square meters, the San Romedio mine already houses underground spaces created by the extraction of dolomite rock that are used for the storage of apples, the fermentation of sparkling wine and other applications where cold and a constant temperature are key factors. The datacenter will provide safe and optimal conditions for ICT-related services that will fully exploit the potential of artificial intelligence, high-performance computing, edge computing and cybersecurity, including quantum encryption. The site,

naturally protected by hundreds of meters of rock, also provides an electromagnetic shield, protection from natural disasters, saves soil, is sustainable and uses renewable energy.

## **An ecosystem of innovation**

Trentino Data Mine is going to be an 'ecosystem'. The datacenter in fact will be a point of reference for public and private organizations for data management and storage and to support the various phases of the innovation cycle through, as far as possible, an open source approach: the analysis of emerging technologies and the definition of a technological development roadmap; the verification and validation of new commercial applications or the development of prototypes in a protected environment; the technological validation of products, processes and services. The proposed model is based on Open Innovation & Open Integration best practices and experiences (i.e. the combined ability to open and merge external and internal knowledge flows) and on the collaboration between the various actors of the territory, to support innovation and technology transfer for the market.

Trentino Data Mine will also make it possible to strengthen the existing collaboration network among research institutions, companies, technological infrastructures and local facilities, in particular in the field of health, digital security, data and financial management. In addition to the University of Trento, leader of the project, Fondazione Bruno Kessler and EIT Digital will play an important role among the public partners with strong expertise in the ICT sector. Trentino Innovation Hub Foundation and Trentino Sviluppo will also be involved.

Trentino Data Mine will also offer employment opportunities to highly specialized staff from different backgrounds: from innovation management to research, from business consulting to technical expertise, to support the industrial growth processes of the companies that participate in the ecosystem. As regards the organizational structure, a scientific and an industrial committee will work together and with the board of directors composed of public and private partners. An "infrastructure manager", as per the project, will supervise all the operations.

## **Fields of application**

The strategic fields of application include life sciences (e-health, health services, diagnostics and precision medicine), artificial intelligence (industry 4.0, smart manufacturing, digital and smart agriculture, digital finance), the energy transition (smart cities, smart mobility, 5G technology and public services). In many respects, these areas are intertwined with iNEST, another high-impact strategic project funded by the PNRR and involving the creation of an ecosystem for innovation in the north east of Italy, of which the University of Trento is part.

## **Four key areas**

Artificial intelligence and its use in trade and industry. For example, in big data analysis, predictive maintenance (to identify the remaining time before failure, especially for equipment and systems), process automation,

computer vision (to obtain information from images or videos) or explainable AI (a process that allows you to test the correctness and accuracy of decisions made by artificial intelligence).

High Performance Computing, the ability to process data and perform complex computing at high speed. And make large amounts of information available to perform high-impact services in various sectors.

Edge computing, a distributed computing model in which the processing of data takes place as close as possible to where the data are generated. A technological solution that allows faster information management with a reduction in data traffic and greater resilience in the event of a connection interruption.

Cybersecurity which, thanks to new advances in the field of quantum encryption, aims to adopt the "Zero-trust" paradigm. That is, create a trusted network perimeter, according to which every network transaction must be authenticated before it can be processed.

### The context

Thanks to the innovations in these areas, the project will make Trentino Data Mine a European reference point for digital innovation, capable to attract international investments. Areas inside the mine can also be made available to companies and public organizations for their ICT activities.

Consulting services in the digital business sector is a very promising market. Based on Confindustria's estimates (July 2021), cloud services and big data management and cybersecurity services have been the backbone of investments in recent years. Cloud services grew by 18.8% in 2020 and reached a global volume of around 4 billion in value, while big data grew by 8.7% to 1.2 billion euro. This trend is not slowing down, as a further 10.8% growth in consulting services for digital business is expected (source: Gartner's research "Forecast Analysis: Digital Business Consulting Services, Worldwide", December 2020).

### Private partners

The public-private partnership project will benefit from the expertise of the companies involved.

**Covi Costruzioni** (based in Predaia, Val di Non) and Tassullo – which has been producing natural hydraulic lime products for the restoration and construction industry since 1909 – combines the craftsmanship's experience of the founders with the most modern engineering design technologies to create high-quality, sustainable buildings.

**Dedagroup** (with headquarters in Trento) brings together the Italian excellence of Software As a Service (SaaS) solutions. Since 2000, it has offered its quality solutions in Italy and the world promoting and accelerating the digital transition while generating a positive impact at the local level. Dedagroup has a solid background in data management services thanks to Deda Cloud, the Group's Managed Cloud & Security Services Provider.

**GPI** (from Trento) is the reference company for the digital transformation of Healthcare. Listed on the EXM Market, GPI helps public and private healthcare organizations improve their processes and innovate their

assistance, care and prevention models. The company provides software solutions, technologies and services to enable sustainable and efficient care and provide adequate responses to the new needs of people's health and well-being. As part of its activities, it also works in cybersecurity with a specific business unit.

**ISA** (Istituto Atesino di Sviluppo, based in Trento), a holding company that has been operating for more than 90 years in Trentino-Alto Adige and beyond, has over 50 investments in different sectors and a consolidated net worth of about 160 million euro. ISA's mission is to invest in initiatives aimed at creating growth and development opportunities at the local level.