ANNUAL REPORT

25

TECHPARK SÜDTIROL / ALTO ADIGE

FOREWORD

We are delighted to present the NOI Annual Report 2025 – a look back on another year of forward momentum in South Tyrol's innovation district. A year in which new partnerships were forged, R&D projects took shape, and events brought businesses together with researchers and specialists. And out of all this networking and exchange, we have seen a wealth of innovative solutions for a sustainable, liveable future arise.

As you will see, one of the central themes running through this year's report is Europe. For NOI, Europe is more than a geographical space; it is a bedrock of innovation. Openness, collaboration and shared standards create a framework in which ideas can have an impact across borders. NOI is proud to serve as an interface that turns access to European networks and funding programmes into tangible projects. And the results speak for themselves: over the past five years, €93.4 million in EU research and development funding has flowed into South Tyrol through NOI Techpark, with NOI and our partners involved in a total of 225 EU-backed R&D projects.

The numbers tell a compelling story elsewhere too. In 2025, 84 companies were based in the innovation district, generating a combined turnover of €3.9 billion. The number of research and development projects has also continued to climb, reaching 1,114 last year with a total budget of €64.1 million. Likewise, support for young companies gained strong momentum: 41 start-ups received tailored guidance, collectively mobilising €37.5 million in private investment and €6.5 million in public funding.

This annual report tells that story in figures, but above all through people and initiatives. It showcases technologies that are both taking root in South Tyrol and finding their place in Europe. It describes projects that are bringing research and industry closer together. And it shows how sustainable and digital transformation can succeed when diverse players pool and share their know-how.

Our thanks go to every one of the partners, stakeholders, companies, start-ups and research institutes who made this all possible. We look forward to the next steps we will take together.

We hope you enjoy reading the NOI Annual Report 2025.

Provincial Minister responsible for NOI
Philipp Achammer

President of the Executive Board
Helga Thaler Ausserhofer

TECHPARK
SÜDTIROL / ALTO ADIGE

ANNUAL REPORT 2025

4

12

32

16

26

22

48

R&D PROJECTS

1,114

R&D projects
pursued by research institutes and companies at NOI in 2025,
139 of them with EU funding

64.1 M

euros
the 2025 budget allocated for these projects,
20.1 million euros of which was EU-funded

31.6 M

euros
the third-party funding budget[1]
of NOI's research institutes/groups

1,547

customers
utilised our services

All footnotes can be found
in the imprint on page 68.

COMPANIES AT NOI

84

companies
were located at NOI in 2025

3.9 B

euros
the combined turnover generated by companies based at NOI[2]

1,186

companies
utilised the services of NOI

50

per cent
of the supported companies were from South Tyrol

All footnotes can be found in the imprint on page 68.

START-UPS AT NOI

41

start-ups
were supported

37.5 M

euros
the total investment from private investors, of which 38% of the start-ups benefited

6.5 M

euros
the total amount of public funding, of which 60% of the start-ups benefited

11

patents
were registered by start-ups at NOI

LABS

70

labs
were active, including 67 scientific labs
and 3 prototyping labs

+18

new labs
were launched in 2025

902

customers
commissioned the labs for R&D projects and services,
570 of which were companies

62

per cent
of the operating costs of the labs
were covered by third-party funding[1]

All footnotes can be found
in the imprint on page 68.

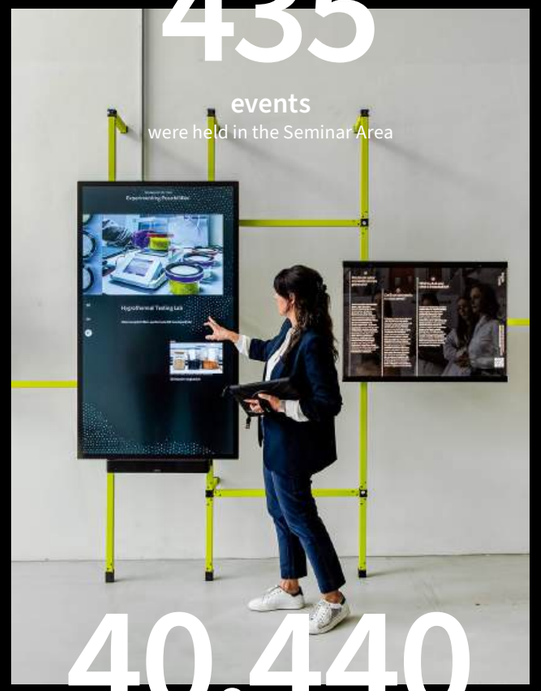
PUBLIC ENGAGEMENT

2,941

children
took part in MiniNOI workshops

435

events
were held in the Seminar Area



40,440

people
attended events at NOI

1,483

people
took part in our guided tours

COMMUNITY

1,600
people
work at NOI

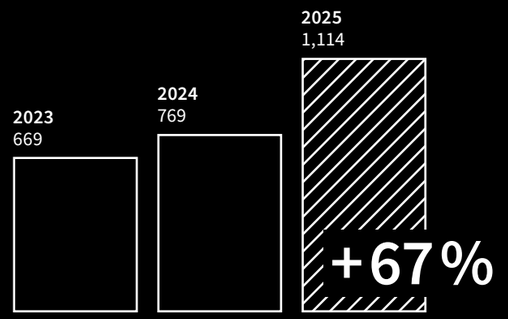
950
unibz students
are enrolled in programmes at NOI

15
languages
are spoken within the NOI-Community

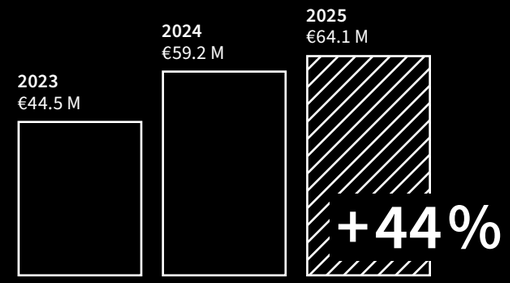
138
services
in the field of networking and tech transfer
were delivered to the community

DEVELOPMENT OVER THREE YEARS

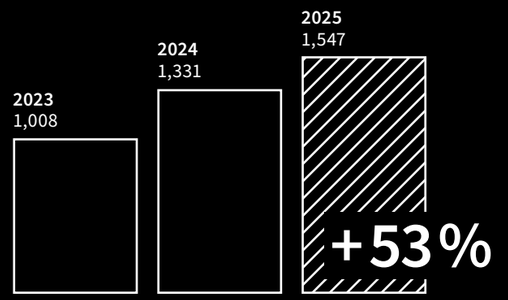
Number of R&D projects



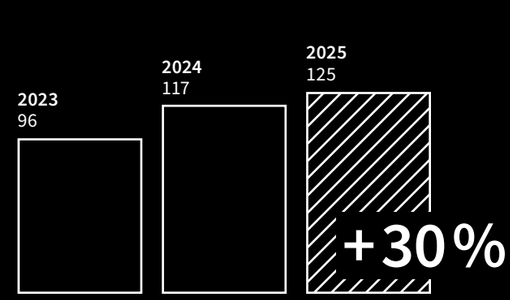
R&D project budget



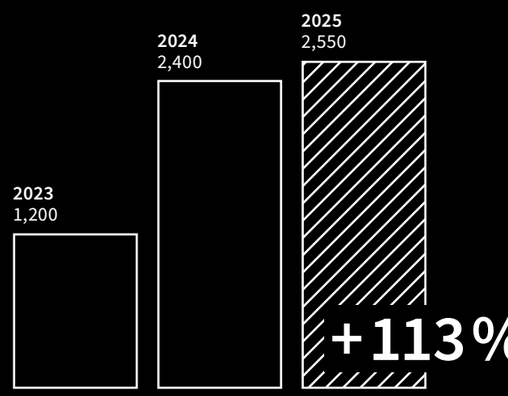
Customers supported



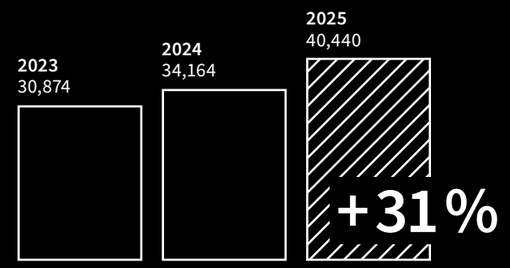
Companies and start-ups at NOI



People in the NOI-Community



Event participants



**NOI stands for Nature of Innovation –
an acronym that captures the essence and
strategic positioning of NOI Techpark.**

THIS IS NOI

Since its opening in 2017, South Tyrol's innovation district has continued to grow and develop. Today, 76 companies, 41 start-ups, 3 research institutes, 4 university faculties and a total of 2,550 people are based here, working toward a common goal: sustainable progress. A constantly expanding infrastructure, currently comprising 70 laboratories and prototype workshops, offices, co-working spaces and academic areas, provides space for this mission. The aim? To create an environment where ideas take flight and establish South Tyrol as a strategic centre of innovation.

NOI MANIFESTO

ESSENCE

NOI is South Tyrol's growing innovation district that links economy and science to boost R&D investment, business innovation and research impact.

VISION

We want to be one of Europe's leading next-generation science and technology parks, to serve best our territory and its companies, Europe's values and the planet's future.

NEXT GENERATION

As a next-generation European science and technology park, we focus on sustainability, open innovation, a European innovation strategy and the needs of the territory.

MISSION

NOI is power of place, culture of cooperation and nature of innovation. Here, companies and start-ups, university faculties and research institutes find and shape an inspiring, sustainable and multilingual environment with research excellence and labs, specialised services, incubation, technological institutes and public engagement.

NATURE OF INNOVATION

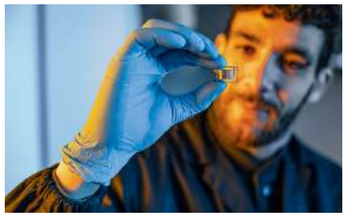
Nature of Innovation is our mindset. Inspired by nature, adapted to change, we rethink common patterns and create new solutions for the benefit of people and nature.

THIS IS NOI

TECHNOLOGY SECTORS


Green


Food & Health

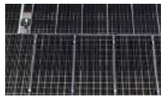

Digital


Automotive & Automation

We want to be at the forefront of every area where South Tyrol has potential. At NOI, companies, institutes and university faculties find the infrastructure and expertise they need to drive research and innovation in four key technology sectors: Green, Food & Health, Digital, and Automotive & Automation. Based on the province's regional innovation strategy – the RIS3 strategy – we have defined three areas of specialisation within each sector. These were developed through a participatory process involving businesspeople, researchers and stakeholders to reflect South Tyrol's unique strengths and development potential. Our goal is clear: to achieve excellence, lead the way and promote sustainability in each of these technology sectors.

THIS IS NOI

GREEN



Energy Systems
Systems designed to combine different energy carriers to increase energy efficiency

Sustainable Buildings & Districts
Development and optimisation of solutions for the construction sector through renewable and reusable resources and materials

Water Technologies
Improvement, preservation and control of the quantity and quality of water resources in line with a circular economy

FOOD & HEALTH

Raw Materials & By-Products
High-quality primary and secondary raw materials for high-quality products

Optimal Processing & Fermentation
Processing methods that utilise and preserve valuable ingredients and organoleptic properties

Omics & Precision Health
Omics technologies for food and health-care applications, as well as all-encompassing solutions in the field of precision health

DIGITAL

Internet of Things (IoT)
Sensors for data collection to address emerging challenges and create a sustainable digital environment

Open Data Hub
The platform for accessing and sharing data, knowledge and algorithms

Artificial Intelligence (AI)
Technological advances in data processing to optimise user engagement throughout the customer journey

AUTOMOTIVE & AUTOMATION

Automotive & Mobility
Components and systems for sustainable automotive and mobility solutions

Manufacturing
Technologies for the digital and sustainable transformation of manufacturing companies

Agri-Automation
Technologies for intelligent automation in agriculture

THIS IS NOI

EUROPE AS A BEDROCK OF INNOVATION

For NOI, Europe is more than a geographical space. Europe is a bedrock of innovation. It stands for openness and exchange, for collaboration that reaches across borders, and for shared standards that allow ideas to connect and travel. When research, businesses and start-ups share knowledge and take responsibility – for people and for the environment – innovation can make a real impact. That is precisely where we come in: at NOI, solutions grow out of the needs of our territory and are developed in step with European values.

This conviction is anchored in our vision: to be one of Europe's leading next-generation science and technology parks, serving our region and its companies, Europe's values and the world of tomorrow in the best way possible.

To get there, we follow the NEXT strategy – our roadmap to ensuring that our science and technology park is effective both today and tomorrow, for the region and for Europe.

N for **nature & sustainability:** We innovate in harmony with nature. Sustainability is at the heart of our focus areas, from green energy to the circular economy.

E for **European strategy:** Europe's innovation strategy is our compass. As part of a shared European space, we reinforce its values, competitiveness and resilience.

X for **X-tra moenia:** Openness runs through everything we do. X-tra moenia – "beyond the walls" – stands for open innovation: collaboration, co-creation, networking and cooperation.

T for **territorial needs**: We keep our local context firmly in view. An innovation district is only as strong as the benefit it delivers to local people and businesses.

How Europe becomes lived practice at NOI is shown through our network, statistics and stories on the pages that follow. →

The European networks in which NOI participates enable companies to find suitable partners, test new technologies, gain access to EU funding and scale their solutions at a European level.

The Provincial Department for Europe

Autonome Provinz Bozen
Provincia autonoma di Bolzano
Provinzia autonoma de Bulsan
SÜDTIROL · ALTO ADIGE

As the institutional bridge between South Tyrol and the EU, the Department for Europe works closely with NOI to facilitate access to European programmes and funding. It creates the conditions that allow players across the region to make the most of European opportunities.

EEN

enterprise europe network
Business Support on Your Doorstep

The Enterprise Europe Network is the world's largest support network for internationally oriented SMEs. NOI, together with the Bolzano Chamber of Commerce, is an official EEN partner and has supported more than 230 companies and research institutes over the past three years alone.

European DIGITAL SME Alliance

EDIH NOI

EDIH European Digital Innovation Hubs Network

The European Digital Innovation Hub at NOI helps companies put artificial intelligence to work, including through "test-before-invest" services. To achieve this, 15 partners from research and industry pool their expertise and have already guided around 250 companies on their digital transformation journey.

European Innovation Council

APRE Agenzia per la Promozione della Ricerca Euro

28DIGITAL

28 DGTL

The 28DIGITAL office at NOI – born out of EIT, the EU's innovation institute – anchors South Tyrol in Europe's largest open ecosystem for digital innovation. Its mission: to turn knowledge into innovation, help start-ups grow and build digital talent.

IASP

IASP International Association of Science Parks and Areas of Innovation

NOI's membership in the International Association of Science Parks and Areas of Innovation deepens our exchange with innovation hubs around the world. In 2025, NOI hosted the IASP European Division Conference, which centred on cross-border challenges such as climate change, digitalisation and the skills shortage.

eit Urban Mobility

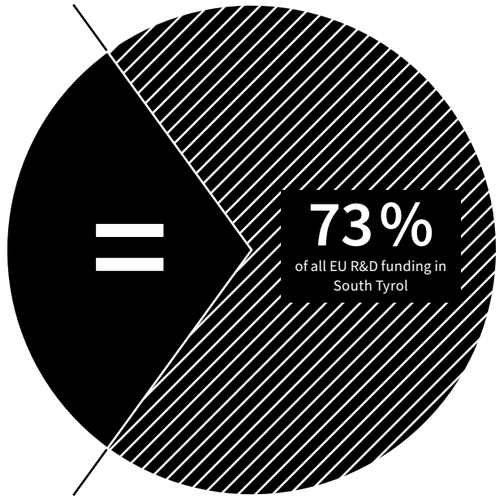
INTERNATIONAL DATA SPACES ASSOCIATION

NOI CONNECTS SOUTH TYROL WITH EUROPE

Europe opens up countless pathways for innovation, and NOI serves as the bridge that transforms access to European networks and funding programmes into tangible projects. We identify the right calls for R&D initiatives, shape project ideas, connect suitable partners and guide the journey from concept to submission. This is how we strategically build collaborations between companies, start-ups and research institutes, matching them with the programmes and funding streams that can move their ideas forward, so that innovation born in South Tyrol can thrive across Europe. The figures from the past five years speak to the impact of NOI and our partners.

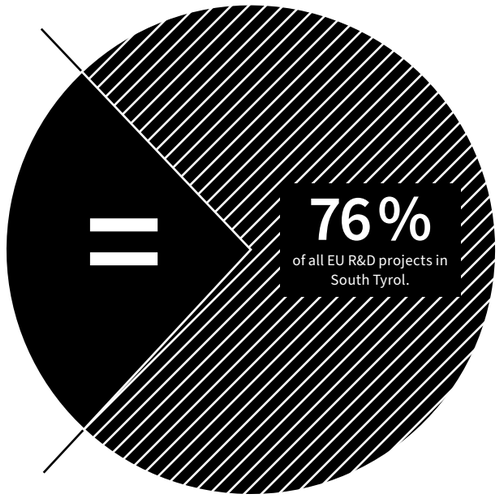
93.4 M

euros
in EU R&D funding flows into South Tyrol through NOI Techpark



225

EU-funded R&D projects
involve a partner from NOI Techpark



Artificial intelligence in the vineyard

What's done by hand today could soon be guided by data. Prospecto is developing an imaging system that recognises vines, grapes and individual berries right in the vineyard. The company tapped into EDIH NOI's "test-before-invest" service to put its approach to the test under real-world conditions. The Laimburg Research Centre supplied reference data and opened up its vineyards as a testing ground, while the South Tyrolean Farmers' Association contributed hands-on expertise from the field. Together, the partners trained an AI model that turns visual guesswork into measurable data – giving winegrowers a way to forecast yields, track plant development and plan interventions earlier and with far greater precision than manual counts and estimates.

"At unibz, our connection to Europe is part of daily life: in our multilingual teaching, in our research and in our international partnerships. The richness of languages and cultures we draw on is a genuine driver of innovation."

Alex Weissensteiner
Rector of the Free University of Bozen-Bolzano

"Europe has given us real momentum. The Seal of Excellence, funding, new partnerships and access to investors have accelerated our development and opened up new markets."

Massimo and Matteo Penasa
Founders of CAEmate

Digital bridges

Major infrastructure, like bridges, ages quietly – until the damage shows. CAEmate is making that hidden process visible. Its WeStatiX software builds digital twins and predictive models that allow engineers to monitor the condition of bridges and other infrastructure before problems surface. NOI supported the company in accessing EU funding and European networking, and prepared it specifically for conversations with investors. The breakthrough came through matchmaking with CDP Venture Capital and 360 Capital: more than €3 million in private capital was raised, complemented by over €1 million in public funding tied to the European Seal of Excellence – a growth trajectory that is turning local engineering know-how into an offering ready for the European market.

Energy renovation for Europe's historic town centres

Historic town centres shape Europe's identity – and pose one of its trickiest climate and energy challenges: they need to be made energy-efficient without losing their cultural value. FUTURHIST, an EU project coordinated by Eurac Research, brings together 18 partners from nine countries to develop renovation approaches centred on predefined building types, so that solutions found in one place can be applied across Europe. The project focuses on natural materials as well as efficient construction technology solutions, some of them tested in the labs at NOI Techpark. The methods are being applied and compared in five case studies in Spain, Poland, Sweden and the United Kingdom.

"Eurac Research carries Europe in its very name. We link the innovation ecosystem around NOI with European research networks, and in doing so, we open up new horizons for innovation in the region."

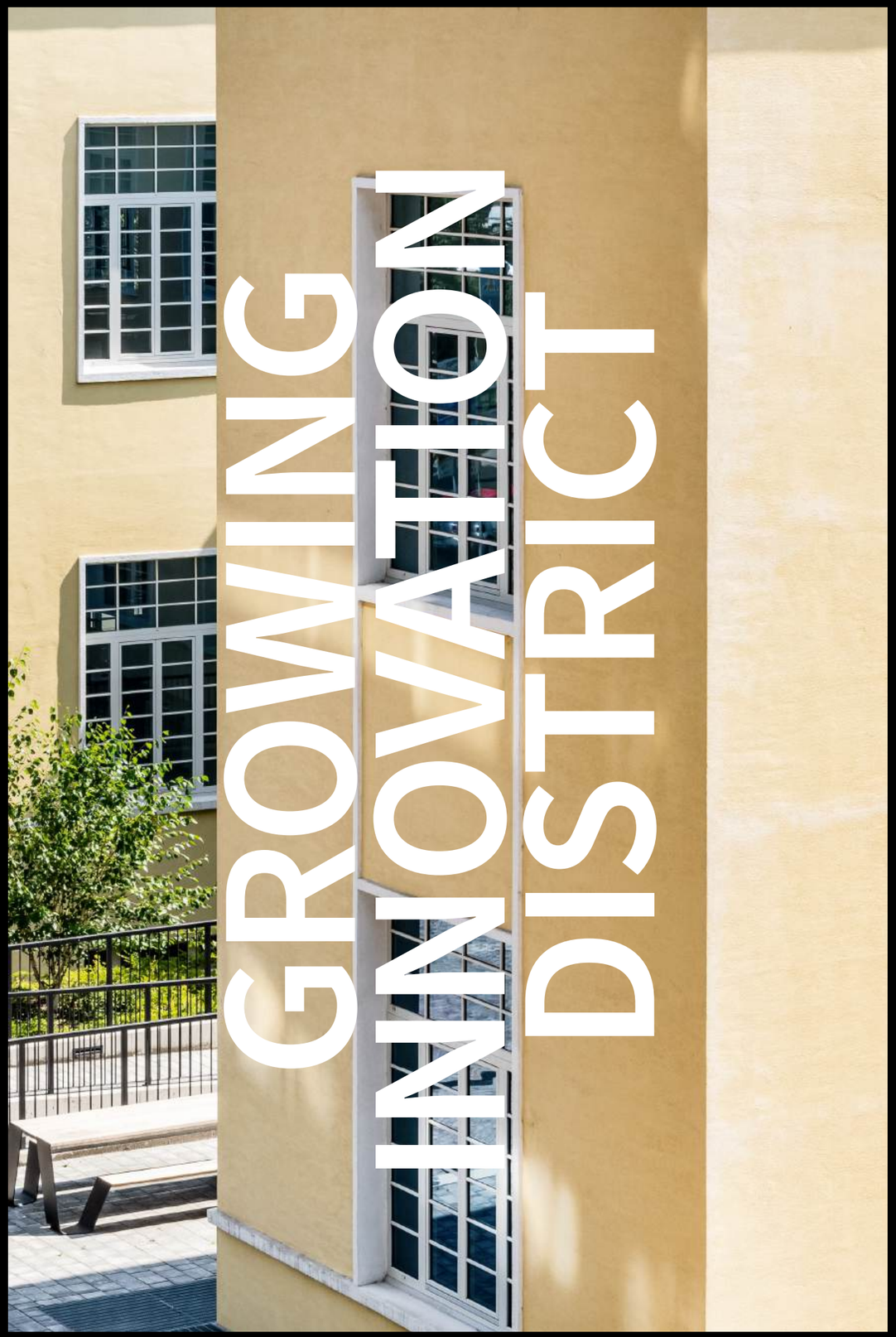
Stephan Ortner
CEO of Eurac Research

Classical music in the classroom

Classical music can often feel far removed from children's everyday lives. Fortissimo brings it closer in a playful and interactive way. Incubated at NOI, the start-up has developed a platform that introduces children to music through creative technologies. To turn the idea into a European project, NOI and the Enterprise Europe Network helped identify the right framework: Creative Europe. What followed was precision work: identifying suitable partners, building a consortium, sharpening the application and coordinating the process. The result was a network of 23 partners. The outcome? €1.69 million in total funding, including €302,909 for Fortissimo, providing a clear example of how EU Partnering at NOI translates ideas into European projects.

"Access to EU tools has opened doors for us, letting us test and scale our digital solution in industrial settings far beyond South Tyrol."

Valeria Told
CEO of Fortissimo



GROWING INNOVATION DISTRICT

From industrial giant to innovation district

In the 1930s, Bolzano was transformed by strategic industrialisation, and 1937 saw Montecatini's aluminium plant begin operations. Jobs followed, the population increased, and energy demand soared. Yet after the boom came the bust: ownership changed hands, and Alumix ultimately took over the plant in 1991; after its closure, the Province of South Tyrol assumed ownership. For a long time, one question remained: what could be done with an industrial site that had outlived its purpose? In 2008, Manifesta 7, the art biennial, marked a turning point, revealing the site's potential as a public space. That same year, the combined team of Chapman Taylor (London) and Claudio Lucchin (Bolzano) won a competition to redesign it. Construction of NOI began in 2015, and in 2017, the innovation district opened its first buildings.

Space for business and research

Since opening, NOI has continued to develop steadily – driven from the outset by strong demand for space and infrastructure. The first expansion module for private companies, D1, proved a decisive addition: it allowed us to welcome numerous innovative companies alongside the university faculties and research institutes, completing NOI's identity as a science and technology park. In the years that followed, the space for laboratories and research was expanded and renovated, including for the Free University of Bozen-Bolzano and Eurac Research's Institute for Biomedicine. At the same time, the community continued to grow – and with it the number of collaborations and projects.

Second location and new faculty

In 2023, NOI added a second location in Brunico: a hub for future mobility and sustainable manufacturing. In 2024, the expansion modules D2 and D3 followed in Bolzano. Here, food research and green technologies gained additional space and new points of connection. Companies from the food and green-tech sectors moved into offices alongside key research centres such as ICOFF – the International Centre on Food Fermentations. Another important milestone was the opening of the Free University of Bozen-Bolzano's new Faculty of Engineering in autumn 2024. With this, NOI became a campus, home to more than 950 students, alongside its existing scientific expertise and innovative companies.

Provincial Minister responsible for NOI, Philipp Achammer, and NOI President Helga Thaler Ausserhofer at the inauguration of the new artwork The Golden Mean.

Doubling in size

With the opening of the Faculty of Engineering, combined with the arrival of new companies such as Wolftank DGM and Zirkonzahn, the innovation district's community has doubled in a short span of time – from around 1,200 to over 2,400 people. That expansion is reshaping daily life: distances shrink, coordination moves faster, and collaborations spring up informally – as people move between labs, offices and seminar rooms. At the same time, the faculty marks an important step forward for NOI and South Tyrol: talent is being trained right on the spot where research, development and testing are actively taking place. For companies, this means more points of contact with students, topics and new skills; for students, it means an environment in which practical questions do not remain abstract but are put to the test right outside the lecture hall.

Open to everyone

NOI is more than a place to research and work; it is intentionally open to the public. The piazza, restaurant, guided tours and events draw people into the innovation district and offer a glimpse of what happens here. Cultural partnerships and festivals are a bold expression of this openness: during the Summer at NOI events, the whole area becomes a stage for music, performances, exhibitions and discourse – the Südtirol Jazzfestival Alto Adige and Transart are just a couple of examples. Public art, too, has shaped NOI for years. In 2025, a new walk-through installation joined the mix; The Golden Mean, directly in front of the Faculty of Engineering, carries a message that perfectly suits its location: innovation is not an end in itself – it must serve people and nature.

Growing international visibility

As our community grows and becomes more interconnected, NOI is also becoming more visible internationally. In 2025, this was reflected in two major conferences: first, the European Division Conference of IASP (the International Association of Science Parks and Areas of Innovation) brought around 130 participants from more than 20 European countries to Bolzano to discuss current challenges such as climate change, digitalisation and the shortage of skilled workers. Then, at ICFF – the International Conference on Fermented Foods – more than 300 experts from around the world exchanged views on how fermented foods can support health, sustainability and food security. Events like these have a multifaceted impact: they bring experts to Bolzano, create opportunities for collaboration and draw attention to topics that matter far beyond the region.

Governor Arno Kompatscher at the opening of the IASP European Summit.

European network, regional roots

Conferences with international appeal, such as IASP and ICFF, advance a clear ambition: to establish NOI as one of Europe's leading science and technology parks, while remaining firmly anchored in the region. Events are part of that picture, but the real driver is the core of expertise taking shape within the innovation district. Fermentation is a case in point: at ICOFF – the International Centre on Food Fermentations at the Free University of Bozen-Bolzano – knowledge is consolidated and research is linked with industry in a field that is gaining global importance and is set to shape the food sector in lasting ways over the coming years. At the same time, new companies are strengthening NOI's international relevance. In 2025, for example, Fujifilm Healthcare Italia – a global player in digital health – joined the park.

Upcoming construction phases

Sustaining NOI's momentum requires additional space and clear priorities. The next construction phase includes the D4 expansion module, focused on digital technologies and automation. Also planned is the new B6 building, which will house laboratories from Eco Research, the Free University of Bozen-Bolzano and the Eco Center. A sustainable project, it is set to become Italy's first zero-carbon-certified office and laboratory building. In parallel, a new development model is emerging: for the first time, we are making a plot available for private construction and development. This will allow companies to plan their presence over the longer term, provided their focus is on research and development and they fit the site's profile.

Thinking ahead: Space for teaching, culture and connection

Beyond the next construction phase, connection remains our central focus: NOI aims to be a place where research, business and society don't just meet but work together in the long term. A planned arts and culture pavilion on the NOI Piazza will deepen that commitment, strengthening ties with the local creative scene. Looking ahead, NOI aims to welcome another scientific and technical faculty from the Free University of Bozen-Bolzano. More students and more on-site teaching would strengthen the links between education, research and real-world application – expanding NOI as a campus in every sense, both intellectually and physically.

Companies

AIAQUA
Aitonomi
ALPITRON
ARXAX
AUTOMOTIVE EXCELLENCE SÜDTIROL
AVL
Bio4Dreams
Biobionics Research Institute
BIOLOGIK
BIZCLAP
by WAY
CAEmate
care4u
CARTORENDER
{catchsolve}
Cell Research
CID
CISMA
ANGRESS
dattoo
DERGA CONSULTING
digitalps
emtb
EBITmax
eco
ecosteer.
elis
endian
Eutero
FUJIFILM
Functional
GAE ENGINEERING
GRUPPO FOS
hantverk
HBI
HiWeiss®
HYDROCELL
IDV
IDUSTRIO
IT WORMHOLE SRL
KERR s.r.l.
KONVERTO
konzept NETWORK
KWB
LEITNER
LIVING FUTURE EUROPE
Loacker
LULA
MAV Tech
MICROTEC
MIRNAGREEN
MOUNTAINEERING
nutramentis
ONTO PIC
Oscavum
PGUM
PIANO GREEN
PV Invest
pwc
R3GIS
RAPSODOO
RE:GUEST
ROPAT
SENSIT Technologies
SENSORY DESIGN
sulhea
soource
STELVIO DIGITAL
SÜDTIROL
SYMPHONIE PARTNERS
TECHNE METROLOGIA
Terra
Truckscreenia
V&D ENGINEERING
VORN BIOENERGY
WSTATIX | GEO
WOLFTANK GROUP
WÜRTH
Xayn
YANOVIS
YDEASTUDIO
YoY
Zirkonzahn

Start-ups

agrobit
ARBOR INSIGHT
BEHAVIX
BEYOND SECURITY
bikeflip
biotitan
bitebase
CLAVA SPORTS
Dr. Taste
esgmax
ETERNUM TECHNOLOGY
garum PROJECT
geomatrix
Guestnet
KAIGOS
KARRY FAST
KINSECT
Lemons in the room
lookin
LOOPS
Mediatize
nanea
Naturamon
NSPulse
ONTRA motorcycles
OpenTerra
Photogram
PlantVoice
REPLOID
RoboAlpin
SANTELMO
SQLOS
SPOAT
STG LAB
viomed
VOLTIQ
WL
XSPline
youAddict

COMPANIES & START-UPS

COMPANIES

NOI Techpark thrives on the connections between companies, research institutes and university faculties. We bring the right actors together to transform know-how into concrete R&D projects – and allow innovation to reach the place where it has the greatest impact: the local economy. Every year, new companies with forward-looking initiatives join the innovation district. In 2025, we accepted 12 of the 13 applications submitted, bringing our total number of companies to 84. Here are three of them.

HiWeiss

HiWeiss develops plant-based proteins that stand out for their nutritional value and functionality – and are 100% naturally derived. To achieve this, the company has developed a patented process that isolates proteins without chemical additives and does so at low temperatures to preserve their functional properties. This makes them a natural alternative to emulsifiers and other additives, as well as a viable egg substitute in both dry and wet products, including pasta, bread dumplings, ice cream and meat alternatives. The raw materials used are traceable, GMO-free and sourced in Italy, with soy as the main input. At NOI Techpark, HiWeiss operates a pilot plant for natural protein extraction, where a two-person team is currently testing different soy varieties and carrying out isolation and drying trials. “The synergy between research institutes, companies and start-ups is tangible here and supports our growth,” says Michael Atzwanger, HiWeiss’s finance manager. Over the past two years, the company has taken a step towards industrial-scale operations: a logistics centre near Padua is already in place, while a protein isolation plant in Melfi is scheduled to begin producing and delivering its main products from March 2026. At the same time, HiWeiss is advancing its circular economy approach. By-products from the isolation process, including the resulting serum, are being used to develop “Karyon”, a plant-strengthening biostimulant for agriculture, which is expected to enter the market upon the start of production, pending completion of the approval process.

The team around Michael Atzwanger, Alessio Filippi and Giovanni Toffoli (from left to right) shares a vision: 100% natural, plant-based proteins, sourced from Italy.

“The synergy between research institutes, companies and start-ups is tangible here and supports our growth.”

Michael Atzwanger
Finance Manager at HiWeiss

Eco8

Eco8 aims to unlock the full potential of biogas plants. To this end, the company has developed a digital platform to make such plants more efficient, transparent and sustainable. Its Biogas Optitool brings together farms, transport operators and plant operators, optimises logistics, documents material flows, calculates actual CO_2 savings – in an ESG-compliant way for non-financial reporting in accordance with ISO 14067 – and provides monthly proof of sustainability in line with RED II. At NOI, Eco8 found the partners and support they needed to develop the project. The Biogas Optitool has been in use at Biogas Wipptal for two years now. With around 100 farm suppliers, there was a strong need for a digital platform that could manage the entire logistics chain. That is exactly what the new tool does. But its potential goes much further, as Eco8 CEO Laura Brida explains: “If a voluntary market for carbon credits emerges in the future, biogas plants will be able to benefit because they remove methane from the environment, allowing them to achieve a negative carbon balance. This is where our tool comes into play, thanks to its certified calculation model.” Brida’s ambition is clear: to pioneer digital traceability and sustainability in bioenergy through Eco8. “We initially developed our software for agricultural biogas supply chains. But we are already planning an expansion to other bioenergy supply chains based on sewage sludge, wood or organic waste,” says the founder.

Laura Brida, CEO of Eco8, is convinced that climate protection and regional value creation can go hand in hand.

“We want to pioneer digital traceability and sustainability in bioenergy plants.”

Laura Brida
CEO of Eco8

Re:Guest

Hotels today face constant pressure to respond to enquiries quickly and consistently, yet day-to-day operations rarely allow enough time to structure the offer and sales process effectively. Re:Guest addresses exactly this challenge: the company is developing a CRM and sales platform that coordinates guest communication across the entire guest journey – from the first enquiry through to the post-stay phase – while easing the workload of reception and sales teams. “A key part of this is CRIS, our AI-powered virtual assistant. It handles reoccurring questions automatically and responds to enquiries in real time, which is particularly valuable when enquiry volumes are high or outside regular opening hours,” says Michael Mitterhofer, founder and CEO of Re:Guest. At NOI, four members of the company’s 13-person tech team are working on product development and the integration of AI features. They benefit from an environment in which companies, research and education come together in close proximity, and expertise in digital technologies and artificial intelligence is concentrated in one place. Re:Guest’s goal is to simplify processes so that hotels can respond faster and communicate in a more personalised way – without creating additional workload. The impact is clear: using the platform, hotels can increase their direct booking rate by 15–30% and reduce response times to just a few minutes.

Michael Mitterhofer founded Re:Guest to provide hotels with an AI-powered virtual assistant to help reduce their workload.

START-UPS

Our start-up incubator thrives on people eager to try something new: young start-up teams, creative inventors, university spin-offs and companies with innovative ideas. At NOI, they each find the space and momentum to turn their vision into reality. Several times a year, we welcome new start-ups into the incubator. Our selection process assesses the team, the business idea, the market potential and the funding strategy. In 2025, we accepted 13 of the 52 applications we received, bringing our total number of supported start-ups to 41 at year-end. Here are three of them.

“For a young technology company like ours, NOI’s network and services are invaluable.”

Andreas Pichler
Co-founder of Naturamon

Naturamon

When tractors move through orchards and vineyards collecting video data via GoPro and GPS, Naturamon turns that footage into a basis for precise decision-making. The start-up analyses the recordings using AI to create a detailed map of the orchard or vineyard – a kind of digital twin that marks each individual plant, showing its yield, flowering status and overall health. The results can be accessed via the web platform or app. Using RTK – a GPS correction technology for centimetre-level positioning – the system can assign data to individual plants with precision. This means developments can be tracked over the course of a season: trends and anomalies become visible at an early stage, and measures such as thinning or precision spraying can be targeted exactly where they will have the greatest effect. The idea originated on a farm in Naz and found crucial support at NOI Techpark in the form of coaching, advice and access to a network of partners, fellow start-ups and potential investors. “For a young technology company like ours, NOI’s network and services are invaluable,” says founder Andreas Pichler. A particularly important element for the start-up is the joint EDIH project with the South Tyrolean Farmers’ Association and the Laimburg Research Centre, in which Naturamon’s AI is being trained on disease data. “Our goal is to detect dangerous diseases at an early stage and prevent outbreaks by removing affected plants in time.”

Co-founders Moritz Pernter (left) and Andreas Pichler (right) want to use their technology to help farms increase their yields and reduce costs.

LOOOPS Food Lab

At LOOOPS Food Lab, food waste that would otherwise be discarded is considered a raw material. The start-up is developing a new natural ingredient – BITELOOP – that can replace sugar and help confectionery manufacturers reduce both sugar and additives without compromising on taste. The approach is circular: through fermentation and upcycling, broken rice is turned into a functional, nutrient-rich ingredient enriched with micro- and macronutrients. “BITELOOP is not just a sugar substitute – it is a new ingredient that combines traditional fermentation, biotechnology and sustainability,” says Martina Ragazzo, CTO of LOOOPS Food Lab. The young, motivated team behind the start-up comes from across Europe and chose to settle in Bolzano. They regarded NOI Techpark, with its open and sustainability-oriented ecosystem, as the ideal environment for growth, especially given its focus on food tech and fermentation. The networking opportunities NOI offers are also fundamental for early-stage companies. As Ragazzo underlines, “The collaborations we started at NOI have enabled us to strengthen the credibility of our project – also in the eyes of partners and investors.” Bolzano’s strategically favourable location could also support the start-up’s international ambitions, as it plans to firmly establish its offices within South Tyrol’s innovation landscape. Its goal is to position itself as a driving force for a healthier and more sustainable food system in the long term.

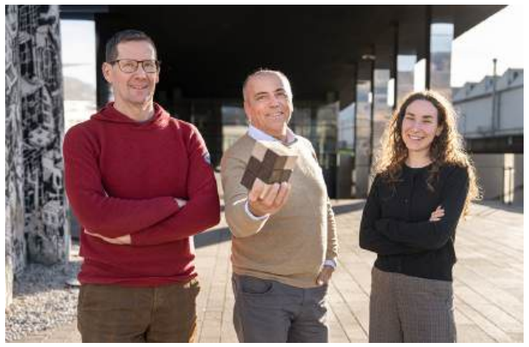
Martina Ragazzo, Ylenia Ciquera, Edoardo Ditto and Simone Roma founded LOOOPS Food Lab together.

“The collaborations we started at NOI have enabled us to strengthen the credibility of our project – also in the eyes of partners and investors.”

Martina Ragazzo
CTO of LOOOPS Food Lab

Geomatrix

Fossil-based plastics are still used as standard in many applications, even as pressure grows to reduce CO_2 emissions and close material loops. This is where Geomatrix comes in: with its novel material Xi, the start-up aims to offer a practical alternative by combining wood industry residues with recycled plastics. The process, which works without chemical reaction steps and uses naturally derived binders, results in a material with a reduced ecological footprint, good mechanical properties, appealing aesthetics and competitive costs. A key factor is its processability: Xi can be shaped in such a way that even complex components and thin wall thicknesses are possible – an important advantage in the automotive, construction and furniture sectors, as well as in cosmetic packaging and everyday products. A life cycle assessment shows a CO_2 reduction of around 50% compared with conventional petroleum-based plastics. Initial applications have been tested in proof-of-concept projects with local and national partners, including Industrie Chimiche Forestali. As part of our Acceleration & Scale-up Programme, a three-person team is working on further development, market development and industrial planning at NOI. “Working with NOI offers us many advantages: it gives us access to important partners and supports us with funding applications as well as investor contacts. This has allowed us to prepare our next steps towards market entry and scale-up in a targeted way,” says Filippo Gallizia, co-founder of Geomatrix.



At NOI, co-founder and CEO Filippo Gallizia and his team – Claudio Merzi and Maria Laura Zonta – are developing an alternative to plastic made from wood residues and recycled materials.

Free University of Bozen-Bolzano

- Faculty of Agricultural, Environmental and Food Sciences
- Faculty of Design and Art
- Faculty of Engineering
- Faculty of Economics and Management

Eurac Research

- Center for Sensing Solutions
- Institute for Mountain Emergency Medicine
- Institute for Biomedicine
- Institute for Renewable Energy
- Institute for Mummy Studies
- terraXcube

Laimburg Research Centre

- Institute for Agricultural Chemistry and Food Quality
- Institute for Mountain Agriculture and Food Technology
- Institute for Fruit Growing and Viticulture

Fraunhofer Italia

- Automation and Mechatronics Engineering
- Bioeconomy & Sustainability
- Process Engineering in Construction
- Robotics and Intelligent Systems Engineering

Energy Agency South Tyrol KlimaHaus-CasaClima

- R&D Department

Trade and Service Providers' Association

- Innovation & New Markets

South Tyrolean Farmers' Association

- Innovation & Energy

hds-unione Business Association

- Competence Centre for Local and Urban Development, Sustainability and Digitalisation

NOI SpA

- Innovation & Tech Transfer
- Start-ups, Funding & Community
- Building & Development
- Brand & Placemaking

South Tyrolean Health Service

- Innovation, Research and Teaching Service (IRTS)

Hoteliers' and Innkeepers' Association South Tyrol

- HGV Innovation Department

ICOFF

- International Centre on Food Fermentations

28DIGITAL

- Regional Office

CNA-SHV Service

- Support for Innovation & Development

Confesercenti Alto Adige Südtirol

- Innovate to Improve

lab.ai

- Informatica Alto Adige SpA

FREE UNIVERSITY OF BOZEN-BOLZANO

Research is a cornerstone of all five faculties at the Free University of Bozen-Bolzano – and at NOI Techpark, it takes an especially application-oriented turn. Here, unibz operates 36 laboratories dedicated to technology transfer and collaboration with the regional production sector and economy. The research spectrum ranges from food technology, precision agriculture, agricultural engineering and Alpine technologies to KlimaHaus-CasaClima, fluid dynamics and renewable energy, not to mention robotics, computer science, sensor technology and nanotechnology. Modern infrastructure and pilot plants help transfer research findings into practice, together with institutional partners and companies. This proximity strengthens collaborations, supports patent applications and fosters the creation of new start-ups and spin-offs. Around 450 employees – professors, researchers and technical and administrative staff – are currently active at NOI. They are joined by more than 950 students from the faculties of Engineering, Agricultural, Environmental and Food Sciences, Design and Arts, and Economics and Management.

Growth market: Non-alcoholic wine

Duration: 2024–2026
Project budget: €72,000
Funding: PNRR
Partners: Kellerei Bozen, VASONGROUP
Lab: Oenolab
Faculty of Agricultural, Environmental and Food Sciences

Non-alcoholic wine is gaining prominence, with the global market now worth more than 10 billion USD. This study takes a closer look at partially de-alcoholised wines: what chemical changes are caused by de-alcoholisation, and how do they affect taste and perception? To answer these questions, the research combines chemical analyses, sensory tests and consumer surveys. Initial evaluations based on more than 300 responses from inside and outside the region point to clear potential, especially among young, health-conscious consumers and people with religious or dietary restrictions. The aim is to help producers improve taste and quality, as well as identify the right marketing approach.

←

→

Reducing friction losses

Duration: 2024–2025
Funding: Schaeffler Technologies AG & Co. KG
Partner: Schaeffler Technologies AG & Co. KG
Lab: Materials Characterisation Lab
Faculty: Faculty of Engineering

Friction in machines is an invisible – yet costly – force: around 23% of global energy is lost in tribological contacts, where surfaces meet and rub against each other. This is exactly where this project comes in, focusing on bearings and lubricants, which are crucial to efficiency and service life in many applications. Lubricating greases are tested under realistic conditions, models of friction and wear behaviour are refined, and performance is validated under load. The aim is to design components that allow machines to run more efficiently and measurably reduce energy losses. The potential impact is considerable: over the next 20 years, up to 40% of energy loss through friction could be reduced, corresponding to a reduction of up to 3,300 million tonnes of CO_2 emissions per year.

unibz

FACTS AND FIGURES 2025*

265 active research projects	Founded: 1997
€16.2 million – the budget for active research projects	President: Ulrike Tappeiner | Rector: Alex Weissensteiner Director: Günther Mathà
452 collaboration partners and customers, of which 175 were companies	Employees at NOI: 450 | Students at NOI: 950

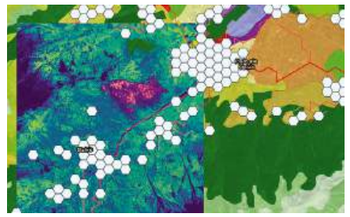
*This data pertains to all the research projects within the unibz research areas at NOI in 2025.

Robots serving the forest

Duration: 2025–2027
Project budget: €491,775
Funding: ERDF
Partners: Eurac Research, FlyingBasket GmbH
Lab: Field Robotics Lab
Faculty of Engineering

Sustainable forest management requires precise, up-to-date data on forest health. This is exactly where FORMA comes in: the project is developing a robot-assisted monitoring system that combines ground-based platforms with drones to automatically record forest conditions. Advanced sensors and algorithms are used to estimate biomass, classify forest structures and detect environmental disturbances at an early stage. The collected data feeds directly into forestry planning. At the same time, it is shared via open-data platforms – providing a basis for collaboration, new applications and sustainable forest management.

←



→

Pooling knowledge to tackle climate risks

Duration: 2025–2028
Project budget: €312,076
Funding: ERDF
Partners: Eurac Research, Ontopic GmbH
Lab: Artificial Intelligence Laboratory
Faculty of Engineering

Climate risks can only be addressed effectively if knowledge is pooled. Scientific findings, environmental observations and forecast models, however, are often available only in separate formats. The CRIMA project brings these elements together in an ontology-based decision support system – a shared concept and data model that translates scientific literature, specialist expertise and quantitative data from observations and meteorological models into a unified structure. This ensures that knowledge about climate risks is better organised, easier to access and more amenable to systematic analysis. The approach is being tested in the context of extreme weather events and drought to create a basis for better planning and effective adaptation to climate change.

Generative AI for start-ups

Duration: 2024–2027
Project budget: €280,784
Funding: ERDF
Partner: FlashBeing GmbH
Faculty of Engineering

The GENESIS project strengthens the local innovation landscape by supporting early-stage start-ups in using generative AI for new products and business models. A practical handbook and concrete application examples make it easier to get started and use GenAI in day-to-day work, allowing founding teams to continue building their entrepreneurial skills. The project's interdisciplinary approach and collaboration with local stakeholders ensure that know-how is turned into tangible solutions – reinforcing the region as a competitive location for innovation.

←

→

More sustainable processes through data

Duration: 2023–2025
Project budget: €72,000
Funding: Fondazione Cariverona
Partner: DataLane S.r.l.
Faculty of Engineering

The ReSS-Pro project helps manufacturing companies improve both their efficiency and their sustainability. Many operational processes consume significant amounts of resources, and that is exactly where the potential lies. The project uses the data already generated through digitalisation to improve process management. An advanced IT system is being developed that not only predicts process outcomes but also provides concrete, intelligent recommendations for action. This makes it possible to continuously refine processes, save resources, reduce waste and bring economic performance more closely in line with sustainability.

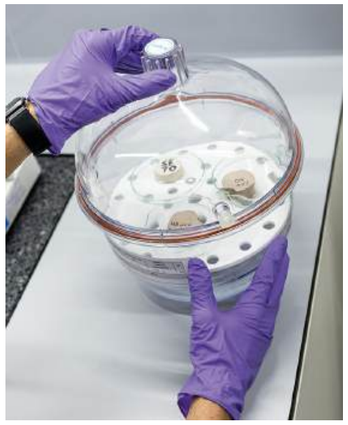
EURAC RESEARCH

To address the major challenges of the future through research – that is the goal of Eurac Research. At South Tyrol's largest research centre, more than 700 people are working to improve people's lives in the future – more than 40 per cent of them are based at NOI Techpark. Here, Eurac Research operates around 20 laboratories in the fields of energy efficiency, environmental monitoring technologies, climate simulation, and molecular and cell biology, within the four institutes of Renewable Energy, Mountain Emergency Medicine, Mummy Studies, and Biomedicine, as well as the Center for Sensing Solutions and the terraXcube extreme climate simulator. Modern infrastructure and testing technologies for prototype and system performance offer significant opportunities. Companies and specialists can benefit from Eurac Research's expertise to develop innovative ideas and processes that improve product performance.

Innovative insulation for historic buildings

Duration: 2024–2026
Partners: Schönthaler Baustoffe GmbH, Naturalia-Bau GmbH, RÖFIX AG, Riwega GmbH
Funding: ERDF 2021–2027
Lab: Hygrothermal Testing Lab
Institute for Renewable Energy

→



←

In the Hygrothermal Testing Lab, natural building materials such as hemp concrete, hydraulic lime, moisture-variable vapour barriers and insulation boards made from hemp fibres are tested for properties including thermal conductivity, moisture absorption and long-term durability. Researchers analyse these materials to develop innovative solutions for interior insulation. The InRenova project explores new ways of making existing and historic buildings more energy-efficient without altering their external appearance. At the same time, it is compiling a regional materials database to support the selection of suitable building materials and enable realistic energy simulations. The aim is to facilitate safe, climate-friendly renovations, as well as greater energy efficiency and living comfort.

Real-time data from plant sap

Duration: 2025–2026
Partners: Plantvoice S.r.l. SB, Laimburg Research Centre
Funding: Fondazione Cassa di Risparmio di Bolzano (Fusion Grant)
Lab: Sensor System Technologies Lab
Center for Sensing Solutions

How can we assess the condition of apple trees before damage becomes visible? The APPLE project is testing an innovative sensor technology that measures water and sap flow within the tree and can thus evaluate its health status in real time. In addition to probe characterisation in the laboratory, selected apple trees in orchards are being equipped with sensors and exposed to controlled stressors such as drought, nutrient deficiency and pests. Automated data analysis with instant alerts provides a sound basis for decision-making in the field, allowing measures to be planned earlier and resources to be used more efficiently. This is particularly relevant in South Tyrol, as the region produces one million tonnes of apples each year.

FACTS AND FIGURES 2025*

183 active research projects	Founded: 1992
€12.9 million – the budget for active research projects	President: Roland Psenner | Director: Stephan Ortner Deputy Director: Roberta Bottarin
365 collaboration partners and customers, of which 320 were companies	Employees at NOI: 328

*The data pertains to Eurac Research institutes and centres based at NOI.

Rucksack extends rescue time

Partner: Safeback AS
Co-financing: University of Bergen
Institute for Mountain Emergency Medicine

In the heart of the Dolomites, 24 volunteers took part in a controlled snow-burial test at an altitude of 2,000 metres under the careful supervision of an international medical research team. The aim was to test the innovative Safeback SBX backpack, which directs air to the nose and mouth of buried victims. Participants were covered in 50 centimetres of snow, and only half wore an active device. While some members of the control group had to stop the trial due to a lack of oxygen, all participants equipped with the active system reached the 35-minute limit specified in the protocol. The study results show that, in avalanche accidents, the Safeback SBX backpack could extend rescue time significantly.

→

←

A 3,000-year-old microbiome

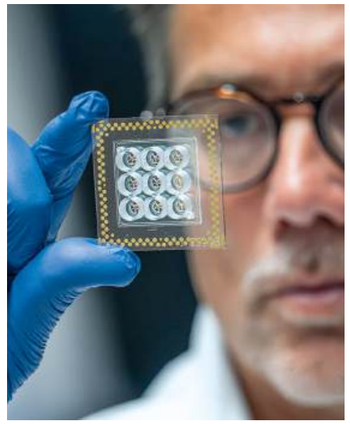
Duration: 2025–2028
Partners: Austrian Archaeological Institute of the Austrian Academy of Sciences, Kunsthistorisches Museum Vienna, GeoSphere Austria, MedUni Vienna, University of Vienna, University of Trento, ISB
Funding: Autonomous Province of Bolzano – Joint Projects "International Cooperation Projects", Austrian Science Fund (FWF)
Lab: Ancient DNA Lab
Institute for Mummy Studies

In the Ancient DNA Lab, prehistoric coprolites – fossilised human excrement – from the Hallstatt salt mine were examined. Salt and consistently low temperatures preserved biomolecules and organic material for over 3,000 years. Using microscopic and molecular analyses, the team reconstructed Bronze and Iron Age diets and identified then-common gut bacteria. Mining and Dining is the first systematic study to trace the gut microbiome's evolution over millennia, combining archaeology with modern multi-omics.

Training in the extreme climate simulator

Duration: 2025–2028
Partner: Aiut Alpin Dolomites
Funding: ERDF 2021–2027
Lab: Large Cube
terraXcube

The MULTITRAX-MR project aims to reproduce extreme Alpine-European environmental conditions in the laboratory and, in doing so, help boost international competitiveness by expanding the terraXcube extreme climate simulator's capabilities. In addition to temperature, precipitation and altitude, visual and auditory components are being added to create an international training centre where rescue personnel and technical staff can be trained in realistic conditions using mixed-reality technologies. By integrating physical models into virtual reality simulations, immersive scenarios are created that can be repeated as often as needed – allowing practice without risk in a controlled setting.



→

←

Miniature organs

Duration: 2025–2027
Partners: AxCellerate Sagl, FEMTOprint SA, NOI SpA, Switzerland Innovation Park Ticino
Funding: Interreg VI-A Italy-Switzerland 2021–2027
Lab: Biomedical Research Lab
Institute for Biomedicine

The INNo-CHIP project is developing a prototype of organ-on-a-chip technology that realistically replicates human organ functions on a microchip, helping reduce animal testing and enabling new therapies to be tested more quickly and precisely. To this end, it brings together expertise in materials science and cell model biology while strengthening the R&D environment in this advanced technology field. The INNo-CHIP project supports 10 biomedical researchers and more than 25 organisations across South Tyrol, the canton of Ticino and the Insubric region. It also supports spin-offs and technology transfer initiatives to facilitate commercialisation of this innovation.

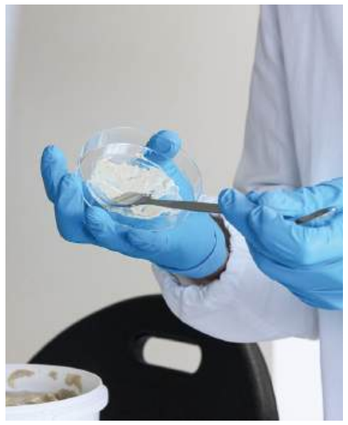
LAIMBURG RESEARCH CENTRE

South Tyrol's leading research institution for agriculture and food processing employs around 250 staff who work on more than 400 research and experimental projects each year. The overarching goal is to strengthen the competitiveness and sustainability of South Tyrolean agriculture and to safeguard the quality of agricultural products. At NOI, the Laimburg Research Centre operates an extensive research infrastructure for this purpose. The Laboratory for Flavours and Metabolites analyses constituents of agricultural products and plant organs to assess their quality, characteristics and purity. The Laboratory for NMR Spectroscopy, run jointly with unibz, verifies and authenticates the origin of agricultural products. In addition, there is the Laboratory for Fruit and Vegetable Processing, with a DIC pilot plant for innovative dried products, the Laboratory for Meat Products and the Laboratory for Residues and Contaminants. A large part of the research institution's research also takes place at the Laimburg Research Centre's headquarters in Vadena.

Natural protein alternatives

Duration: 2025–2027
Project budget: €799,196
Funding: ERDF 2021–2027
Partner: HiWeiss GmbH
Lab: Laboratory for Flavours and Metabolites, Laboratory for NMR Spectroscopy

The PROSEED project focuses on smarter ways of processing plant proteins. To this end, researchers are exploring new fermentation and drying technologies to refine plant protein fractions in a targeted way – that is, the protein-rich components obtained through extraction using a patented process. The project also aims to add value to by-products that have often remained unused until now. The goal is to develop natural, sustainable protein alternatives that are versatile in use and retain their functional properties. The research findings will be presented in such a way that they can be directly applied in the food industry.



←

→

Plastic in agriculture

Duration: 2025–2027
Project budget: €327,219
Funding: South Tyrol Climate Plan 2040
Partners: PTH Brixen College, Eco Research, Fraunhofer Italia
Lab: Laboratory for Soil and Plant Analysis
Sustainable Cultivation Systems Working Group

Plastics play a surprisingly large role in agriculture, including in apple orchards. ClimOO is an interdisciplinary research project examining where plastic is used, how microplastics spread in the soil and their effects on soil fertility, crop quality and CO_2 sequestration. To answer these questions, agricultural practices are surveyed, soil samples analysed and existing standards reviewed. A key element of the project is the development of an ontology – a shared terminology and data model that combines environmental information from different sources into a uniform structure. This helps compare, combine and analyse data and use it to develop strategies to reduce plastic use.

FACTS AND FIGURES 2025*

109 active research projects	Founded: 1975
€4.7 million – the budget for active research projects	Director: Michael Oberhuber
102 collaboration partners and customers, of which 44 were companies	Total number of employees: 253 | Employees at NOI: 20
1,371 agricultural businesses have commissioned laboratory services	

*The data pertains to the NOI research areas of the Laimburg Research Centre.

An early warning system for Alternaria

Duration: 2025–2026
Project budget: €73,200
Funding: Fondazione Cassa di Risparmio di Bolzano (Fusion Grant)
Lab: Laboratory for Residues and Contaminants

Early detection saves post-harvest sorting: the RADAR project is developing methods to detect mycotoxins produced by the fungus *Alternaria spp.* in apples at an early stage. Alternaria has been widespread in South Tyrolean apple farming for years. Though it poses no risk to human health, infected fruit is not suitable for sale as fresh produce and is usually processed into juice or purée. The project is investigating the relationship between the presence of the pathogen in the raw material, the post-harvest conditions under which it develops, and the mycotoxin levels measured later. The goal is to protect consumer health and optimise the production and marketing chain.

←

→

Omics expertise under one roof

Duration: 2025–2027
Project budget: €1,385,511
Funding: ERDF 2021–2027
Partner: Eurac Research
Lab: Laboratory for Flavours and Metabolites, Laboratory for NMR Spectroscopy Functional Genomics and MultiOmics Data Science Working Groups

With the MultiOmics Center for Nutrition and Health (MOC), NOI is gaining an interdisciplinary centre of expertise for omics technologies. The centre enables researchers to study biological systems holistically – from genes and proteins to metabolic products. Using genomics, transcriptomics, proteomics and metabolomics, large datasets (big data) can be generated and analysed. The aim of the MOC is to make state-of-the-art omics technologies available to research institutes and companies alike to offer a basis for new solutions in agriculture and food production, as well as in health.

Pomace against Alzheimer's?

Duration: 2024–2026
Project budget: €116,875
Funding: Fondazione Caritro
Partners: Free University of Bozen-Bolzano, Polytechnic University of Marche, Zanotelli Winery
Lab: Laboratory for NMR Spectroscopy

For every 100 litres of wine produced, around 30 kilograms of grape pomace remain – skins, seeds and other solid residues from the pressing process. The SUSTAIN project (System for the SUSTAINable Use of Pomaces for Circular Economy and Innovative Products) explores how these by-products can be reused for medical purposes. Grape pomace is rich in polyphenols, organic compounds known for their health-promoting properties. One focus of the project is whether these substances could help slow the development of certain neurodegenerative diseases.

←

→

Cooling requirements in focus

Duration: 2025–2027
Project budget: €499,822
Funding: South Tyrol Climate Plan 2040
Partners: Eurac Research, Free University of Bozen-Bolzano, Fraunhofer Italia
Storage and Post-Harvest Biology Working Group

Global demand for cooling is growing rapidly – and with it the pressure on energy systems and the climate. Yet although cooling is also becoming increasingly important in South Tyrol, reliable local data has so far been lacking. This is exactly the gap the CoolST project aims to close: it systematically collects inventory data on cooling devices by type and sector and quantifies their energy consumption using market analyses and simulations based on local climate and socioeconomic data. This results in forecasts for the coming years. The results will be made available via an open, interactive platform, providing a foundation for research, planning and a sustainable cooling strategy.

FRAUNHOFER ITALIA

Based at NOI, the non-profit research institute Fraunhofer Italia makes digitalisation tangible and usable for SMEs. Its goal is to translate scientific findings into economically viable, tailored, sustainable solutions for companies. To this end, Fraunhofer Italia offers services in the fields of digitalisation and advanced automation for all economic sectors. The Fraunhofer Italia ARENA (Area for REsearch & iNnovative Applications) serves as a central platform for future-oriented topics such as Applied AI & Digital Twin, Advanced Robotics & Intelligent Production and Digital Construction & BIM. Technology demonstrators vividly illustrate the potential – and the challenges – associated with the smart factory and the construction site of the future.

AI-supported electrical planning

Duration: 2024–2025
Project budget: €60,000
Funding: EDIH NOI – European Digital Innovation Hub
Partner: Elektro A. Haller GmbH
Digitalization and Automation in Construction Team

In a joint project, Fraunhofer Italia and Elektro A. Haller developed a web-based tool that significantly speeds up electrical planning. Users upload a building plan and automatically receive suggestions for the placement of sockets, switches and detectors. To do this, the AI identifies room shapes as well as elements such as walls, doors, windows and furniture, determines suitable placements and feeds standardised coordinates back into the plan. Also, practical implementation is supported by an integrated cost estimate based on the South Tyrolean regional price index, which makes the financial effort transparent at an early stage. The result is a continuous and efficient planning process – from initial sketch to cost estimate.

←

Better delivery of quantity planning

Duration: 2025
Project budget: €60,000
Funding: EDIH NOI – European Digital Innovation Hub
Partner: Alber SpA
Lab: ARENA
Robotics and Intelligent Systems Engineering Team

In a project carried out by Fraunhofer Italia for the textile company Alber, the focus was on how AI can support stock planning in stores. The aim was to improve the planning of delivery quantities – especially for socks, stockings and underwear – in order to reduce excess stock and returns while increasing sales through a product range that better matched each location. To this end, regional and socioeconomic factors such as geographical context, population density, average income and employment rate were analysed. On this basis, it was possible to identify the factors that most strongly influence demand and to develop an AI model that suggests the quantities likely to be optimal for each store.

FACTS AND FIGURES 2025

53 active research projects with third-party funding	Founded: 2009
€1.8 million – the amount of third-party funding	Institute Director: Dominik Matt
28 corporate customers	Employees at NOI: 38
	Interns, students & doctoral candidates: 21

KLIMAHAUS CASACLIMA

The Energy Agency South Tyrol, Klimahaus-CasaClima, is a public body of the Autonomous Province of Bolzano. It is recognised as a competence centre for energy-efficient and sustainable building practices, impacting construction and renovation efforts in South Tyrol and beyond. Located at NOI Techpark and staffed by over 40 employees, the agency primarily focuses on evaluating and certifying buildings and construction materials based on energy and environmental quality standards. Additionally, it provides an extensive range of training and education programmes for professionals in the construction sector. It also offers tailored programmes to guide and support companies and municipalities towards enhanced energy efficiency and sustainability.

Ready to renovate with heat pumps

Duration: 3 years
Project budget: €1,280,000
Funding: Programme for the Environment and Climate Action (LIFE-2023-CET-HEATPUMPS)
Partners: Vorarlberg Energy Institute, Rosenheim Technical University, University of Innsbruck, Allgäu Energy & Environment Centre, RENOWAVE.AT, Fraunhofer Italia
Research and Development Department

To promote the use of heat pumps in existing multi-storey residential buildings, the KnowHow-HP project is developing a continuing education programme for installers, planners and energy consultants. The focus is on creating an integrated, software-supported planning and implementation process that aligns renovation measures and the heat pump concept from the outset. This improves planning quality, reduces risks and creates a more reliable basis for implementation and investment decisions. With research and professional training partners, the project analyses existing training programmes and planning processes, develops a digital toolbox and disseminates the content through training and communication so it can be applied in practice.

→

←

Contact point for energy communities

Duration: 3 years
Project budget: €4,000,000
Funding: Ministry of Environment and Energy Security (MASE)
Partners: RENAEL (National Network of Local Energy Agencies) and its local member agencies
Research and Development Department

The RENOSS project aims to promote the spread of community self-consumption models throughout Italy. To this end, the project partners have developed regional one-stop shops (OSS) that can be accessed online or in person. In South Tyrol, the KlimaHaus-CasaClima agency is the contact point for the OSS. The idea is that this central point of contact will be able to provide guidance, clearly explain the social, environmental and economic benefits and offer practical support. The OSS supports citizens, companies and public bodies in founding, expanding or joining energy communities and existing models – removing barriers and making it easier for everyone to use locally generated renewable energy.

FACTS AND FIGURES 2025*

7 active research projects	Founded: 2006
€310,500 – the budget for active research projects	General Director: Ulrich Santa
	Employees at NOI: 41

*The data pertains exclusively to the R&D Department of KlimaHaus-CasaClima.

INSTITUTIONS

LVH.APA

With more than 8,000 members, lvh.apa is one of the most prominent business associations in South Tyrol, representing the interests of the craft and service sectors. Its mission is to help shape the framework conditions so that SMEs remain competitive and fit for the future. The Innovation & New Markets department, part of the Business Development department, is the direct point of contact for the craft sector at NOI. It provides advice on innovation, funding, product development, digitalisation, artificial intelligence and sustainability – through events and workshops as well as in-depth consulting packages. Another key focus is networking: the department brings businesses together with innovation service providers and laboratories at NOI to initiate collaborations.

Clear future direction

Duration: 2025
Funding: SUNrise Interreg VI-A Italy – Austria
Partners: MCI, Innovation Salzburg GmbH, TEC4I FVG, t2i

The cross-border SUNrise project supports companies undergoing generational transition. Its focus is on providing measures such as consulting and mentoring for successors, helping them transform existing business models to make them fit for the future. As part of the project, company Schwarz took the opportunity to further develop its own succession process. In three pilot workshops at NOI Techpark, Claudia, Andreas and Alexander Schwarz worked together with lvh.apa to analyse the current situation, define clear goals and plan concrete measures. The structured guidance provided by the lvh.apa team created opportunities for deliberate reflection away from day-to-day operations. The results were then presented and discussed within the team – an important step towards a clear path forward.
Photo, from left to right: Kathrin Pichler (lvh.apa), Claudia, Andreas and Alexander Schwarz (Schwarz GmbH) and Johanna Mühlögger (lvh.apa).

AI in joinery

Duration: 2025
Funding: EDIH NOI
Partners: Kofler GmbH – Koflerproject, NOI SpA

Kofler, the renowned joinery company based in San Felice, manufactures high-quality furniture and exports it worldwide. Their daily challenges include efficiently managing customer orders and their specific requirements, planning and adapting a complex production process, and maintaining relationships with suppliers. To make this easier, Kofler turned to lvh's "test-before-invest" service at the Free Software Lab as part of EDIH NOI. With support from lvh and the Tech Transfer Unit Digital at NOI, the company implemented and tested an AI-powered application. What does it make possible? Simplified planning across all projects, as well as the automatic creation of revised planning scenarios in the event of delays, incidents or changes in project priorities.
Pictured: the AI Days 2025 for the skilled trades.

FACTS AND FIGURES 2025*

134 companies were supported, three of which in cooperation with partners at NOI	Founded: 1945
140 R&D projects by companies supported	President: Martin Haller | Director: Walter Pöhl Head of Innovation & New Markets Department: Kathrin Pichler
€428,800 – the budget for the supported R&D projects	Total number of employees: 150 | Employees at NOI: 4

*The data pertains to the activities of the lvh.apa Innovation & New Markets Department based at NOI.

SOUTH TYROLEAN FARMERS' ASSOCIATION

As one of the largest business associations in South Tyrol, the SBB (the South Tyrolean Farmers' Association) actively represents and supports over 21,000 member companies. Its mission is to strengthen the farming community economically, socially, culturally and politically. Recognising the importance of future-proofing agriculture, the association established the Innovation & Energy Department about ten years ago. Located at NOI Techpark, this department is a vital resource for farmers seeking to innovate. It provides guidance on innovation, analyses new business sectors and trends, assists with project and funding opportunities and promotes initiatives for product development and enhancing the visibility of agricultural innovations. As a conduit between science and its practical applications, the Innovation & Energy Department focuses on networking with companies, laboratories, start-ups and research institutes.

Legumes as a crop of the future

Duration: 2024–2026
Project budget: €335,621
Funding: EAFRD – European Agricultural Fund for Rural Development
Partners: Laimburg Research Centre, MCI, BRING, four agricultural businesses

With INNOLeguminosen, legumes are returning to South Tyrol as a crop of the future. The project combines agricultural practices, research and food innovation to create new income sources for small farms. It looks at the entire value chain – from cultivation and processing through to a market-ready product. Field trials help identify suitable varieties and growing conditions, while innovative regional legume-based foods are being developed in parallel. Market analyses, legal clarifications and targeted knowledge transfer ensure that the results can be applied in practice – turning new crops into concrete opportunities.

Farm-fresh fruit gummies

Duration: 2025
Funding: ERDF
Partner: NOI SpA

In response to a concrete question raised by the South Tyrolean Farmers' Association, an idea began to take shape in the Kitchen Lab: fruit gummies made from regional raw materials. Together with the Partschillerhof farm run by Andreas Rungger, high-quality South Tyrolean fruit was selected, and different recipes were developed methodically. In a series of tasting rounds, samples were tested, feedback gathered and recipes refined until taste, quality and origin came together. At the same time, the test kitchen examined the details that matter in practice: from the right gelling agent and processing method to the perfect moment for packaging and storage. The result is a practical recipe, complete with instructions – a concrete building block for farm shops and direct marketers looking to expand their range.

FACTS AND FIGURES 2025*

167 companies were supported, 46 of which in cooperation with partners at NOI	Founded: 1904
8 active research projects	Regional Chairperson: Daniel Gasser | Director: Siegfried Rinner Head of Innovation & Energy Department: Matthias Bertagnolli
€343,150 – the budget for the R&D projects	Total number of employees: 248 | Employees at NOI: 2

*The data pertains to the activities of the SBB Innovation & Energy Department based at the association's headquarters in Bolzano and at NOI.

HDS-UNIONE

With more than 5,500 member companies, hds-unione is one of the largest and most important business associations in South Tyrol. As the representative body for companies in retail, services and hospitality, it offers solutions for its various member groups and sectors – drawing on the expertise and experience of its staff as well as a province-wide network of volunteer representatives. At NOI Techpark, hds-unione runs a competence centre for local development, sustainability and digitalisation, supporting its members with innovative know-how. At the same time, this location enables the association to further strengthen collaboration and exchange with the research institutes and institutional partners based in the innovation district.

“Move to Cargo” sustainable delivery solutions

Duration: 2025–2026
Funding: FFG, MIMIT, BMFTR as part of the Driving Urban Transitions Partnership
Partners: STA Green Mobility, Municipality of Merano, University of Leipzig, Salzburg Research, City of Gävle

How can goods be delivered and collected more sustainably in urban outskirts – and how can consumers be encouraged to adopt more sustainable behaviour? These are exactly the questions the EU-co-funded SuCoLo project is trying to answer. The jointly developed approaches are being tested in Merano, Salzburg, Leipzig and Gävle. In Merano, the “Move to Cargo” pilot is testing how cargo bikes can be integrated into the city’s existing bike-sharing system. The aim is to create a delivery and collection service that is efficient, environmentally friendly and inclusive. Practical trials are examining how well the service works in everyday life, together with local retail businesses that implement sustainable deliveries. In this way, important know-how is being generated for sustainable local mobility in South Tyrol.

←

→

Travel agencies prepare for the future

Duration: 2025–2026
Funding: Autonomous Province of Bolzano
Partners: South Tyrolean travel agencies, NOI SpA

In 2025, the business association hds-unione and NOI once again brought structured innovation to SMEs in South Tyrol. Following a successful pilot project with companies in the IT and communications sectors, the cooperation entered a second round – this time with South Tyrolean travel agencies. The basis of the programme is Alpha Innovation, the method for radical innovation developed at NOI. In a joint workshop, the companies first work with the NOI team to define the key trends and technologies for an industry-specific Alpha Innovation Radar. This is followed by an analysis of the innovation signals and their classification within the radar. Based on these results, innovation strategies are developed, which in turn are captured in concrete scenarios and projects that each company can adapt to its own reality.

hds unione
we are economy

FACTS AND FIGURES 2025*

74 companies were supported, 38 of which in cooperation with partners at NOI	Founded: 1946
2 active R&D projects	President: Philipp Moser | Director: Sabine Mayr Head of the Competence Centre for Urban Development, Sustainability and Digitalisation: Martin Stampfer
€136,200 – the budget for the R&D projects	Total number of employees: 150 | Employees at NOI: 2

*The data pertains to the activities of the hds-Unione Competence Centre based at NOI.

HGV

The HGV (the Hoteliers’ and Innkeepers’ Association of South Tyrol) is the central organisation representing the interests of South Tyrol’s hotel and hospitality industry. With around 4,500 member businesses, the association is a key pillar of South Tyrol’s economy. The HGV’s mission is to support its members with tailored services and to strengthen their competitiveness. Under the guiding theme of “Future Hospitality”, the HGV is setting strategic priorities to prepare the industry for future challenges and enhance its resilience by focusing on innovation, employee leadership and sustainability. Improvements in these three areas are intended not only to ensure the economic success of businesses but also to contribute to the sustainable development of both the tourism sector and the broader South Tyrolean community. Through these initiatives, the HGV is pursuing a holistic approach to future-proof South Tyrol’s tourism industry and to further solidify the region’s position as a leading tourism destination in the Alpine region.

Indoor farming in mountain areas

Duration: 2024–2026
Project budget: €63,500
Funding: EDIH NOI – European Digital Innovation Hub
Partners: Eurac Research, NOI SpA, pilot operation
Lab: Sensor System Technologies Lab

An EDIH project with a hotel business at about 1,500 metres above sea level in Val Pusteria shows how digitalisation and research can address concrete operational challenges. The goal is to achieve year-round indoor farming to produce regional food independently of weather and season. With the “test-before-invest” approach, a prototype for an intelligent greenhouse was developed with the Center for Sensing Solutions at Eurac Research (pictured on the right: Center Director Roberto Monsorno). Sensor systems and data-based models help simulate and optimise yields, energy use and production conditions in a targeted way. HGV supported the process by serving as the interface between business and research, helping ensure that technological expertise was translated into practical application. In this way, innovation can be tested in everyday hotel operations before investment is made.

→

←

Sustainable pool facilities for hotels

Duration: 2025–2026
Partners: Hofer Group GmbH, NOI SpA, pilot businesses

Sustainable pool facilities are at the centre of an innovation project by the Hofer Group (pictured on the left: project manager Philipp Hofer), developed in close cooperation with NOI and HGV. The starting point was the hotel sector’s growing demand for greater resource efficiency and environmental compatibility while maintaining a high level of guest comfort. Together with NOI and with scientific support, the Hoboxx Green system was developed, based on an ultrafiltration process. It keeps pool water usable for longer, thereby reducing the consumption of fresh water, energy and chemicals. HGV contributed its sector expertise and network and is currently helping to identify hotel businesses to serve as early adopters for practical implementation. Thanks to the close collaboration between companies, researchers and the association, a technical solution is being turned into a concrete step towards more sustainable hospitality.

hgv
Hoteliers- und Gastwirteverband

FACTS AND FIGURES 2025*

300 participants attended one specialist conference, two technology excursions and two INNOvibes aperitifs	Founded: 1962
6 companies were supported in “test-before-invest” projects	President: Klaus Berger | Director: Raffael Mooswalder Head of Innovation: Manuela Pattis
	Total number of employees: 250 | Employees at NOI: 2

*The data pertains to the activities of the HGV Innovation Department based at NOI.

NOI SPA

An ever-growing community of around 2,550 innovation drivers – including start-ups, companies, researchers and students – needs someone to coordinate it. That's where NOI SpA comes in. As the development and operating company, it ensures everything at NOI Techpark runs smoothly while continuously advancing South Tyrol's innovation district. By creating active networking opportunities and providing a broad range of services, it helps launch and support R&D projects, foster talent and start-ups, and position the region and its businesses to advantage in a competitive and future-ready economy. Strategic direction is provided by representatives from participating research institutes and the region's leading interest and business associations. The NOI Board ensures that the activities and development of the science and technology park align with the needs of companies and evolve in step with the local economy.

NOI SpA is the development and operating company of NOI Techpark.

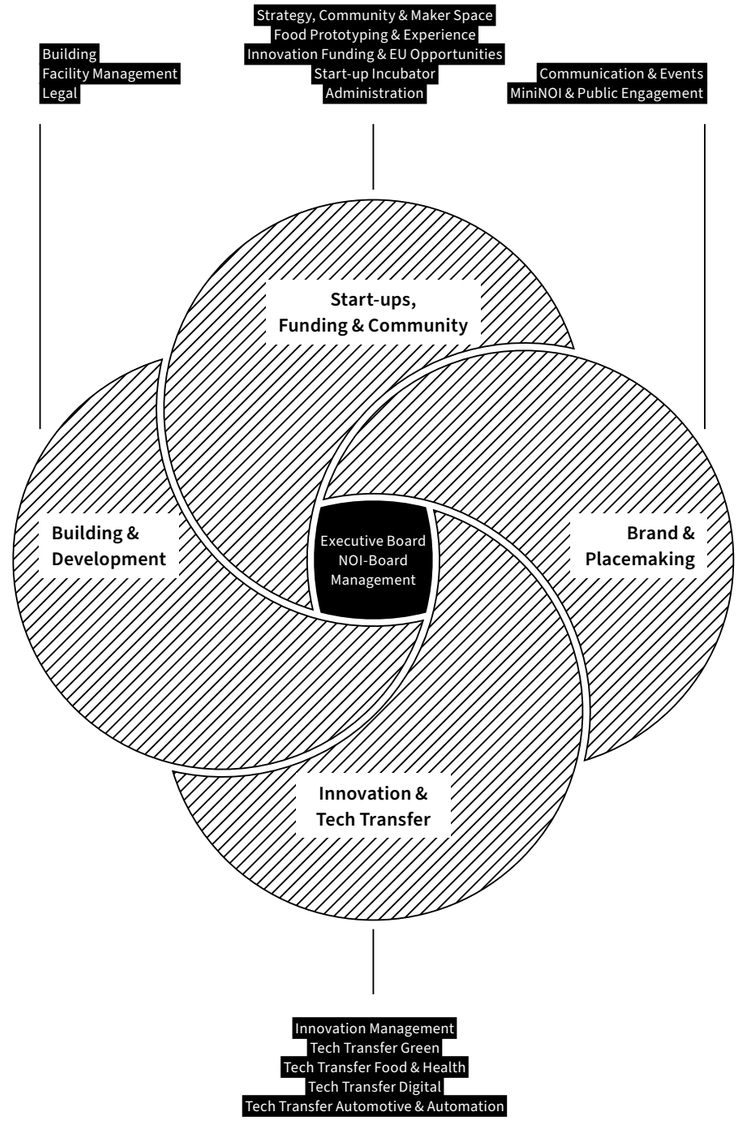
It provides technology transfer and funding advice, connects companies with research institutes and laboratories, supports start-ups as they grow, manages the entire site, including future expansions, and engages the wider public in what happens at NOI Techpark through events and initiatives.

The services NOI SpA provides are detailed in the next chapter → pp. 48–67

TECHPARK
SÜDTIROL / ALTO ADIGE

FACTS AND FIGURES 2025

225 R&D and innovation projects supported	Founded: 2019
€15.4 million – the budget for the supported R&D and innovation projects	President: Helga Thaler Ausserhofer | Director: Ulrich Stofner
631 customers supported, of which 600 were companies	In-house company with 100% provincial participation
33,600 participants in events held in the Seminar Area	Share capital: €241.6 million
	Employees: 109



SERVICES

LABS

- Lab Desk
- Maker Space & Prototyping
- Kitchen Lab
- Free Software Lab

→ pp. 50–51

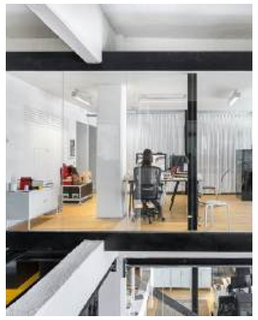
TECH TRANSFER

- Networking & Cooperation
- R&D Consulting
- Know-how Transfer Events

→ pp. 52–55

START-UP INCUBATOR

- Inventors & Pre-Incubation Programme
- Incubation Programme
- Acceleration & Scale-up Programme



→ pp. 56–57

INNOVATION MANAGEMENT

- Alpha Innovation
- Pi Innovation
- Students Sprint

→ pp. 58–59

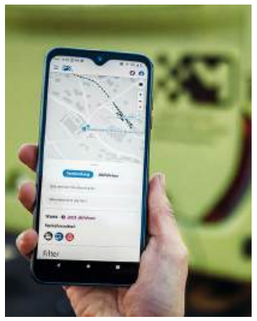
INNOVATION FUNDING & EU OPPOR-TUNITIES

- EU Partnering
- EU Funding
- Regional & National Funding
- Private Funding
- Lab Bonus

→ pp. 60–61

OPEN DATA HUB

- Data Access
- Data Sharing
- Data Visualization



→ pp. 62–63

PUBLIC ENGAGEMENT

- MiniNOI
- Arts & Culture
- Visits
- NOISE

→ pp. 64–65

AREA & SPACES

- Areas for Rent (Offices, Labs, Pilot Projects)
- Seminar Area

→ pp. 66–67

LABS

NOI Techpark is home to 70 scientific and prototyping labs, giving companies access to cutting-edge research – whether they are looking to improve energy efficiency, automate processes or develop food products that are more sustainable and easier to digest. Our facilities range from test benches and prototyping workshops to accredited tests, climate simulation chambers, pilot plants and high-tech laboratories. Through our Lab Desk, we match companies with the research team and lab best suited to their needs – whether for collaborative research, contract projects, consulting, or testing and analysis. We also run three in-house Open Labs: the Maker Space, the Kitchen Lab and the Free Software Lab. Companies, start-ups and individuals can use these for prototyping, testing new technologies and producing small runs. Some of the labs at NOI have been co-financed by the European Regional Development Fund (ERDF).

A sauce with cult status

It started as a beloved house sauce served with toasted sandwiches at the former Moskito Bar in Bolzano; in the Kitchen Lab, it became something bigger. With our support, Tobias “Tobe” Planer of Ahoi Minigolf BZ turned his cult-favourite recipe into a product with real commercial potential. We guided him throughout the process – from selecting ingredients and refining the recipe to shelf-life testing, packaging and labelling. Together, we also planned the pilot batch and prepared the required food-safety documentation, including the HACCP plan. The result is a market-ready sauce that still has the cult following that made it special in the first place.

Maker Space for Students

Since 2025, the Maker Space has also been open to students from the Faculty of Engineering at the Free University of Bozen-Bolzano. In the first year, 90 students took advantage of this offer to carry out concrete innovative projects, some independently and others as part of two unibz courses. With access to over 100 machines, state-of-the-art workshops and a wide range of tools and materials, students were able to turn theoretical knowledge into working prototypes and build practical skills. A major factor in the programme’s success was strong backing from the local business community. Four South Tyrolean companies acted as sponsors, providing dedicated funding for student prototype development, with additional support from the European Regional Development Fund (ERDF).

AI for cooperative logistics

How can goods be delivered more efficiently – with a reduction in emissions? The South Tyrolean company SLON thinks the answer lies in cooperative logistics. Rather than relying on a single carrier to cover the entire route from warehouse to recipient, multiple providers share the journey in stages, like a relay race. The real challenge is coordinating all of this in real time. To manage that complexity, SLON used the EDIH “test-before-invest” service to access the Free Software Lab. With technical support from OpenMove, an AI model was developed and tested that can analyse historical patterns, predict courier movements and identify the most suitable carrier for each request. This reduces detours and empty runs – and makes routes more efficient.

342

customers
have used our three prototyping labs

88

per cent of the operating costs
of the prototyping labs were covered by third-party funding

TECH TRANSFER

R&D at NOI means turning scientific findings into concrete projects. Technology transfer is the key to that process. We connect companies with relevant research and make know-how usable – in the form of new products, better processes and future-ready services. We support companies at every stage: in sharpening project ideas, scouting the right technologies, bringing together the right partners from industry, research and academia, designing the R&D project, and keeping timelines and goals on track. We also help navigate funding opportunities and application deadlines, and, where needed, we can support prototype testing. Through sector-specific Know-how Transfer Events, we create opportunities to share insights, explore trends and exchange best practices. We focus on four technology sectors: Green, Food & Health, Digital, and Automotive & Automation.

GREEN

Solutions and expertise for the energy transition

The future of industrial water management

How can companies reuse process water more efficiently, reduce their water footprint and turn wastewater into a source of energy and raw materials? These were the central questions at our Know-how Transfer Event on the future of industrial water management. More than 70 business leaders, researchers, stakeholders and experts gathered to explore solutions to growing water scarcity: a pressing issue, as UNESCO projects that global water demand will rise by around 30 per cent by 2050. The event covered both technological solutions and the current regulatory framework, from new incentive systems like the “Blue Certificates” and updated rules on industrial wastewater reuse to practical examples such as zero-liquid-discharge (ZLD) plants. Discussions also looked at how industrial and urban symbioses can share water resources, how water efficiency can be built into plant design from the start, and the potential of nanotechnology for surface treatment.

←

→

Putting phosphorus back into circulation

Phosphorus is on the EU’s list of critical raw materials – and it turns up in a surprising place: sewage sludge. In 2025, the ERDF-funded project “Recovery of Nutrients from the HTC Process”, a collaboration between biotechnology company HBI and the Free University of Bozen-Bolzano, was completed. We supported the project from funding application through to implementation, with a particular focus on market analysis, and presented the results alongside companies and researchers at the closing event “From Sewage Sludge to Raw Material: Technologies and Strategies for the Future”. The conclusion is clear and promising: phosphorus can be extracted from the ash produced during sewage sludge treatment and made usable again for further processing, for example, in the fertiliser industry. Testing confirmed both the technical feasibility and the economic viability, opening the door for industrial-scale modules to be integrated into existing systems – and for a European value chain to be constructed around critical raw materials.

2,524

participants
have taken part in 38 know-how transfer events

FOOD & HEALTH

Food and health innovation for people and the planet

The who's who of fermentation research

From 27 to 30 October 2025, Bolzano became a focal point for international fermentation research. Under the direction of Prof. Marco Gobbetti, the International Conference on Fermented Foods (ICFF) was held at NOI for the first time. More than 300 experts from science and industry came together to discuss how fermented foods can support health, sustainability and food security. The programme covered the latest research findings, the human microbiome and strategies for reducing food waste. Sixteen leading experts were invited to speak, including researchers from ETH Zurich, KU Leuven (Belgium), the University of California (USA), the National University of Singapore, and the University of NSW (Australia). Over 200 abstracts were submitted, and the sold-out event highlighted the strong interest in the topic. The conference will now be held every two years, with the aim of establishing NOI Techpark as an international hub for food fermentation.

→

←

A mini heart on a chip

How can new active substances be tested faster and closer to human biology? This is the focus of the Interreg project INNo-CHIP, with the Institute for Biomedicine at Eurac Research and Swiss firms Femtoprint and AxCellerate. At its heart is an organ-on-a-chip: a tiny device to which heart muscle cell organoids are connected with high-precision technology. Researchers can observe how the tissue responds to active substances tested directly on human cells and measure effects and side effects. Organ-on-a-chip technologies make preclinical testing more informative, reduce animal testing and lower drug development costs. They are a key focus within Precision Health – a central pillar of our Food & Health specialisation strategy.

←

DIGITAL

Data as the backbone of a smart, green region

Bolzano becomes a living lab for digital solutions

On 23 December 2025, we signed a framework agreement with the city of Bolzano, turning it into a living lab for smart city solutions. Together, we want to develop digital services faster and more efficiently, while ensuring they are more closely aligned with what residents actually need – from mobility and visitor flow management to parking and energy consumption. A central concept is the idea of "digital streets", where sensors and real-time data are used to actively steer processes rather than simply analysing them after the fact. To make this work, all relevant data must be brought together and linked – so that better decisions can be made, services can work more smoothly, and costs can be reduced. The Open Data Hub provides the technological foundation for this process, bundling data streams and making them usable for various applications. Looking ahead, the partnership will also incorporate knowledge exchange, joint training initiatives, research projects and participation in regional, national and EU funding calls.

AI against the flood of emails

When inboxes overflow and routine enquiries consume working hours, digital support isn't a luxury – it's a necessity. The South Tyrolean company Kunst& Dünger faced this challenge and found a solution via the European Digital Innovation Hub. EDIH NOI is more than a funding service: it brings together expertise of 13 partners to advance digital transformation in South Tyrol. Working with Fraunhofer Italia, the company developed an intelligent assistant that analyses incoming emails, identifies customers and automatically drafts suitable replies. A major advantage for Kunst&Dünger was EDIH's "test-before-invest" service, which allowed the SME to trial the prototype in day-to-day operations for several months before investing in implementation.

AUTOMOTIVE & AUTOMATION

Sustainable manufacturing, automotive and mobility solutions

Making the slopes more accessible

Monorolly aims to make winter sports more accessible for people with physical disabilities – specifically, helping mono-ski users board gondola lifts. The company's existing device, a mobile aid designed to make boarding easier, needed to be made lighter and more compact so users could carry it with them rather than hoping to find one available at the ski resort. This is where we came in. We helped the company identify suitable funding opportunities, refine the development concept and choose the right materials. We also connected Monorolly with partners in design and engineering, as well as with testing facilities for safety and load tests, including at the University of Padua. The result is the Monorolly2GO: an ultralight, foldable version that fits in a rucksack and is compatible with standard mono-ski bindings.

Drone spraying on steep slopes

Taschlerhof Farm in the Isarco Valley cultivates a 5.5-hectare vineyard on steep slopes – physically demanding work that carries increased safety risks. Together with the farm, we developed and supported an R&D project focused on process innovation: replacing ground-based spraying equipment with a drone to make the work safer and more efficient. Since aerial application of plant protection products is not currently permitted in Italy, only water was used during testing. The project design laid the practical groundwork for future regulatory changes, as drone spraying may well become legally viable in the coming years. The results show what's possible: spraying takes less time and costs less, resulting in real relief for workers and greater safety on steep slopes. What's more, emissions are reduced, soil compaction is minimised, and the vineyard can be managed more gently overall.

5.1

million euros
the budget for the supported research, development and innovation projects

138

networking and consulting services
provided

START-UP INCUBATOR

Starting a business means experimenting, making decisions, adjusting course and learning quickly along the way. That is exactly what our Start-up Incubator helps with. We provide founders, start-ups and spin-offs with personal guidance, sound expertise and a strong network. Through events, matchmaking, coaching, mentoring and hands-on training, we help them reach key milestones and build the right connections with partners, experts and investors. We offer three programmes tailored to different stages of growth: the Inventors & Pre-Incubation Programme for teams in the early stages of their business idea, the three-year Incubation Programme for established start-ups based in South Tyrol, and the Acceleration & Scale-up Programme – a booster for the next phase of growth. Our Start-up Incubator is certified by the Italian Ministry of Economic Development.

Two new programmes

We don’t just support start-ups – we continuously develop our services and programmes to keep pace with their needs. In 2025, we responded to growing demand for support beyond the Incubation Programme with two new offerings. The Acceleration & Scale-up Programme is designed for start-ups and spin-offs at a more advanced stage of development and has a focus on growth: financing, scaling strategies, expansion and building the right partnerships. The Alumni Programme complements this offer by strengthening the community. Former Incubation Programme participants receive targeted support and, in return, contribute their expertise as mentors and advisors, sharing their learnings and supporting current teams with practical know-how. This creates a self-reinforcing knowledge transfer community that strengthens the NOI network and supports long-term success across the board.

Matthäus Kircher and his start-up Solos are part of the Alumni Programme, where he shares his practical expertise with other founding teams.

37.5

million euros
the total investment in 38% of the start-ups by private investors

6.5

million euros
in public financing received by our start-ups in 2025

48 hours of start-up mindset

In spring 2025, we organised the first Future Founder Days – two days in which we welcomed students and young people eager to dive into the world of entrepreneurship. Participants met creative, like-minded peers, tackled real-world challenges and worked in teams to develop innovative solutions with real practical value. Through hands-on activities and brainstorming sessions, they got a taste of what it takes to turn an idea into a start-up – and along the way, they had the opportunity to connect directly with our community of research institutes, companies and start-ups. In response to strong demand, we ran the format again in autumn, adding a new element: Pitch Night. Selected start-ups had the chance to present their business idea in a simulated real-world pitch setting. The audience, including students, played the role of jury and voted for the most convincing pitch.

60

per cent of our start-ups
have received public funding

INNOVATION MANAGEMENT

Radical innovation requires more than good ideas – it requires a method. With Alpha Innovation, we have developed a scientifically grounded approach that supports companies in three steps: opening new ways of thinking and doing, narrowing and sharpening their options, and arriving at viable solutions. Drawing on NOI's knowledge pool and international network, Alpha Innovation offers a roadmap for companies that don't want to simply react in disruptive times, but to move strategically and actively shape the markets of the future. For companies looking to optimise existing products or services in a more targeted way, Pi Innovation offers a structured path to developing and validating incremental innovations. And our Students Sprint programme pairs companies with multidisciplinary student teams to tackle real innovation topics – bringing fresh perspectives and expert guidance to the table.

4.7

out of 5 points
the Customer Satisfaction Score for the services provided

24

innovation projects
supported

A secure path into the digital future

Digital technologies – particularly AI – are rapidly reshaping the banking sector. Through an Alpha Innovation project, RIS, the IT service provider for South Tyrol's Raiffeisen banks, seized this momentum to systematically explore new opportunities. Over the three stages of Alpha Innovation, the RIS leadership team defined innovation fields, identified signals, developed scenarios and turned insights into concrete innovation directions. Central to the process was the objective of building on the core strengths of the Raiffeisen network: customer proximity, trust, community and local roots. Together, the teams developed approaches, built and validated prototypes, and used the results to inform decisions on which R&D projects to pursue next. The goal: to guide the Raiffeisen banks safely into the digital future.

Where real challenges meet fresh perspectives

The Students Sprint programme is a win-win prospect. Companies work with young talent and interdisciplinary teams to gain fresh inspiration and develop new approaches to real challenges. Students, in turn, gain first-hand exposure to the problems companies face today – and valuable experience for their future careers. In 2025, 31 students took on briefs from the companies Barbieri Electronic, Kostner Service and VOG Products. After five days of intensive collaboration and expert input, the outcomes were concrete: proposed solutions and early prototypes ranging from a two-storey model of the service station of the future to a digital touchpoint for direct customer engagement to a user-friendly fruit pouch cap. At the closing event, the three most compelling ideas and prototypes were awarded.

INNOVATION FUNDING & EU OPPORTUNITIES

Good projects need more than a good idea – they need the right mix of funding and the right partners at the right time. We bring structure to funding and financing opportunities and help companies find the right entry point – from regional and national funding to EU programmes and private capital. Together, we assess the options, set priorities and plan the next steps. Depending on the need, we can support a company from the call for proposals through the submission of the application. Europe is a powerful lever in this space. Through our EU Funding service, we identify suitable calls for proposals and support the application process. In addition, through EU Partnering, we connect companies with potential collaboration partners across Europe and beyond – supported by our membership of the Enterprise Europe Network and other networks. For companies' growth-related needs, we can assess investor readiness and help open doors to the right investment partners. And through the Lab Bonus, we make R&D in the NOI Labs more accessible and affordable.

15

million euros
the budget of the NOI-supported applications submitted for EU projects

94

customers
have utilised our services

Founder Elisabeth Tocca received support at NOI for her project PIPO.

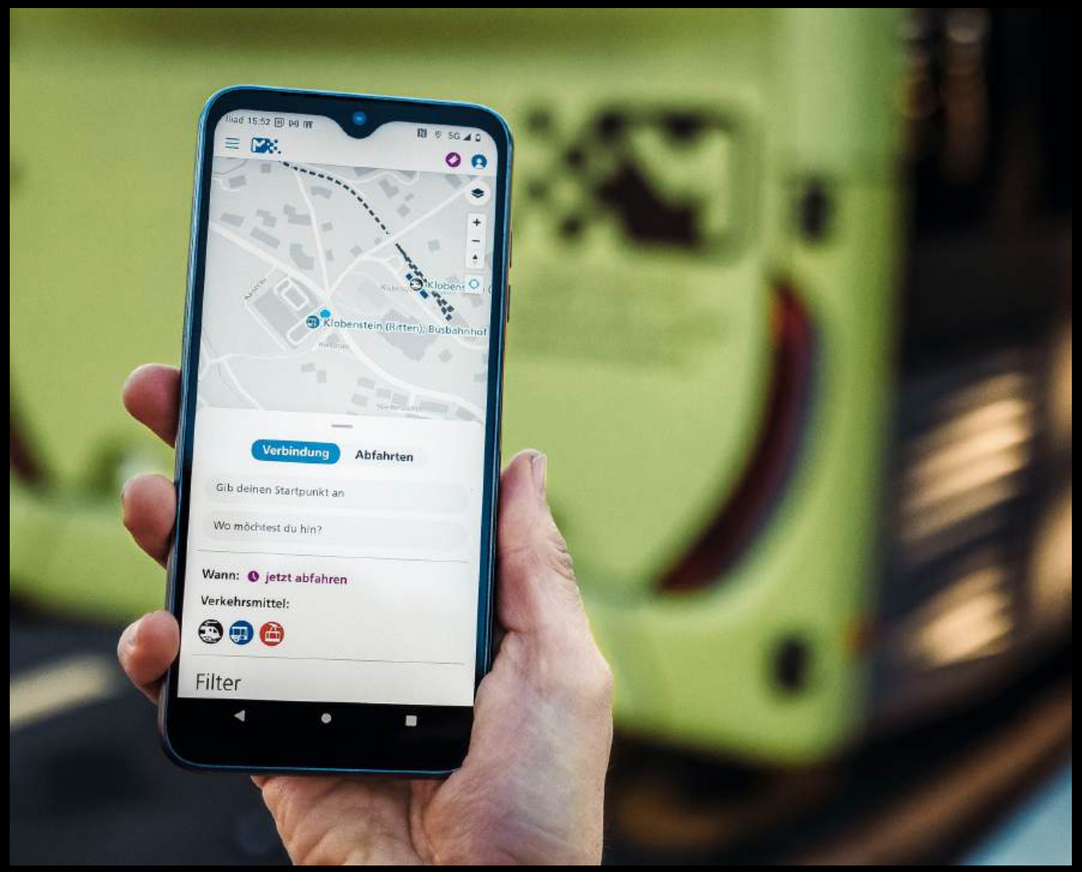
More dignity thanks to smart sensors

More self-determination, less uncertainty: that is the goal of the ERDF project PIPO – Technological Innovation in Incontinence Management. Together with Kerr, MetaEsse and MM Design, the South Tyrolean company PIPO developed a solution designed to improve daily life for people living with urinary incontinence. A sensor patch worn on the body tracks bladder filling and sends data to an app, while a learning algorithm identifies the right moment to send a discreet reminder. Looking to the future, PIPO aims to replace some single-use products, like incontinence pants and catheters, achieving a positive environmental impact, as well as improving comfort and dignity. We supported the company in refining the project concept, building partnerships, preparing the funding application and getting the project off the ground. The proposal was approved, giving the partners the resources to industrialise the product, further develop the algorithm, optimise the app experience and prepare for clinical trials.

"Plastic 2.0" from South Tyrol

Geomatrix is developing a sustainable polymer material designed to replace conventional plastic across a wide range of applications. It combines recycled plastic, wood residues from local sawmills and a natural additive to achieve properties similar to those of plastic, with a significantly lower environmental footprint. We supported the start-up in taking its next critical steps. Through the Enterprise Europe Network, we established international connections to assist in testing, eco-design and life-cycle assessments, as well as identifying potential customers and distribution partners – including concrete enquiries and testing opportunities. In parallel, we set up R&D collaborations with several universities to further develop the material's properties. We also advised Geomatrix on suitable funding and financing opportunities. The results: a €120,000 grant toward a €270,000 R&D project, an approved €1.5 million commercialisation project for the production facility, with access to an interest-free 10-year loan covering 80 per cent of the costs, and connections to private investment partners that helped initiate a €400,000 financing round.

OPEN DATA HUB



What makes data valuable? The use to which you put it. The Open Data Hub brings together data on mobility, traffic, weather and tourism and makes it accessible through a single point of access. Rather than juggling multiple sources, companies, research institutions and public bodies can tap into verified, structured and continuously updated information. In making this available, we put the European principle of secure, transparent data sharing into practice – and turn it into a genuine driver of innovation. We offer three services. Through Data Access, we provide well-documented APIs and tools for both real-time and historical data. Through Data Sharing, we help organisations publish their datasets securely, transparently and in standardised formats – thereby strengthening interoperability and visibility. And through Data Visualization, we turn complex data into interactive analyses, dashboards and prototypes.

Sebastian Betz, co-founder and CEO of Mediatize, uses artificial intelligence and data from the Open Data Hub for his chatbot.

Data that guides guests

Overtourism has become a familiar challenge: hotspots are overcrowded, traffic is worsening, the quality of holidays is declining, and local communities are feeling the strain. With their website touristinfo.ai, start-up Mediatize is using digital visitor guidance as part of the solution. Its AI chatbots assist guests via WhatsApp around the clock in over 80 languages, suggesting alternatives to help ease visitor flows. But this solution requires reliable data. That is where we come in. Through the Open Data Hub, we provide Mediatize with a single data interface that delivers real-time information on mobility, parking and weather. Rather than negotiating separate data agreements with individual municipalities or transport operators, the start-up can simply access consolidated, ready-to-use data. The result: faster development for the company, leading to smarter, more efficient and more sustainable tourism management.

Seamless travel

The South Tyrolean software company Yanovis demonstrates how a simple overnight stay can be transformed into a well-planned travel experience. The company utilises the Open Data Hub's interfaces in its "Travel Suite" to intelligently link tourism and mobility data. Take flight data as an example: current SkyAlps schedules feed directly into the software via the Open Data Hub. This means hotels can go beyond simply offering rooms; they can display relevant travel options and consolidate them into personalised packages. What guests once had to piece together across multiple websites is now available in one place, making the booking process easier for everyone involved. As a central data interface, the Open Data Hub provides this information in a structured, up-to-date form – without the need for separate data agreements.

>300

million requests
from apps and websites received

72

customers
used Open Data Hub services

>1,000

websites and apps
used our data

PUBLIC ENGAGEMENT

We think internationally, but we're rooted in the region. With that mindset, we open our doors to the public through events, workshops and guided tours, giving people a window into the goings-on at NOI. Our goal is to make the topics and projects being developed in our labs and offices accessible and engaging – and to create opportunities for genuine exchange. One of our flagship initiatives is MiniNOI. Our interactive workshops invite children aged 6 to 14 to tinker, experiment and learn – exploring everything from robotics and electronics to programming and hands-on scientific discovery. Alongside this, our Art & Science programme brings concerts, art installations and cultural events to the innovation district each year, bridging the worlds of creativity and technology. Guided tours round out the offering, taking visitors behind the scenes and bringing NOI to life as a place of innovation.

1,500 glimpses behind the scenes

What does innovation look like when it is not only explained, but actively demonstrated? In 2025, we welcomed around 1,500 visitors on tailored tours of NOI Techpark – from companies, institutions and international delegations to secondary school classes and university students. Along the way, we opened up our 70 research and prototyping labs, brought each of our technology sectors to life, and showed why topics like fermentation matter for health and sustainability. Visitors also got to meet the companies and start-ups based at NOI, coming away with a real sense of how business and science unite in South Tyrol's innovation district.

2,941

children
have taken part in MiniNOI workshops

6,840

attendees
have visited our Arts & Culture events

1,483

people
have taken part in the visits

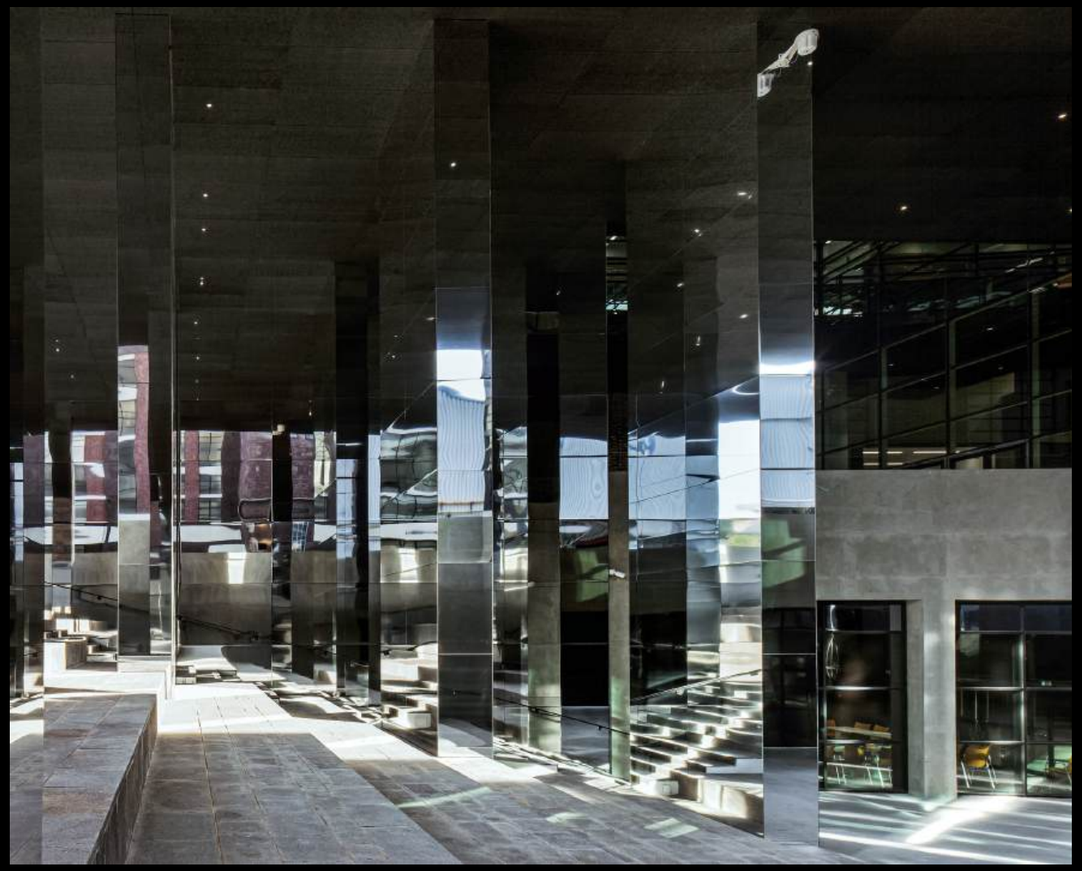
A summer of art and music

Summer at NOI has long been synonymous with art and music. Last summer, from June to September, our innovation district hosted nine evenings of performances, exhibitions and discussions – featuring international cultural collectives, artistic experiments and renowned regional festivals. Two landmark openings set the tone: the opening concert of the Südtirol Jazzfestival Alto Adige and the opening event of Transart, which celebrated its 25th anniversary at NOI. On such occasions, our piazza becomes a gathering place for fresh perspectives and new connections – open to everyone.

What makes bread so fluffy?

During ICFF, the International Conference on Fermented Foods, we also brought research to life for the next generation. In the MiniNOI workshop "Everything is fermenting here", we turned microbiomes and fermentation into something children could explore through play. Through a board game, kids discovered different types of fermentation and the role microorganisms play – while finding out what makes bread so fluffy and yoghurt so creamy. Workshops like these make major international NOI events accessible to young, curious minds and bring complex scientific topics within reach of all.

AREA & SPACES



Our 120,000 m² campus – around 30,000 m² of which is dedicated to scientific labs, workshops, seminar rooms and smart spaces – is home to companies, university faculties and research institutes working on new solutions in South Tyrol's leading technology sectors. Companies can rent offices and laboratory space and relocate entire teams or project groups to NOI, entering into an environment that combines high sustainability standards with a distinctive historic setting. As the site's development and operating company, we continue to shape the campus, oversee maintenance and support new construction projects. Our 2,700 m² Seminar Area is available to the NOI-Community as well as external innovation drivers. What matters is the right focus: events here should aim to inspire and share knowledge, not sell.

A landmark with a message

With "The Golden Mean", artist duo SCHWARZENFELD (Michael Meraner and Raphaela Aurelia Sauer) has added a striking new landmark to our campus, directly in front of the Free University of Bozen-Bolzano's new Faculty of Engineering. The 27.5-metre-high column carries a clear message: innovation is not an end in itself. It must serve people and nature. With its position in front of a faculty with a central focus on AI and robotics, the piece is a reminder that research and progress must preserve the balance between nature, technology and humanity. When you step inside the hollow square column, you enter a small interior space that frames a section of sky like a telescope. The light falling from above symbolises knowledge and insight. On the floor, a nature-inspired motif – designed by AI and realised by hand as a mosaic – brings technology and artistry together in a single gesture. Thus, art at NOI becomes a space for reflection: visible, accessible and woven into everyday life.

33,600

participants
took part in 435 events in the Seminar Area

Europe visits the innovation district

From 7 to 9 May 2025, we hosted the European Division Conference of IASP – the International Association of Science Parks and Areas of Innovation – welcoming around 130 participants from more than 20 countries to Bolzano to explore the theme "How to Generate Local Impact with European Relevance". The conference delved into how science parks, innovation districts and similar institutions can drive regional transformation while responding to broader European and global developments. The programme combined keynote speeches and interactive workshops – including sessions on communication and community building in science and technology parks – with lab tours and networking. Participants discussed current challenges, including climate change, digitalisation and the shortage of skilled workers. One highlight was an interactive workshop on the future strategic role of innovation sites across Europe.

Imprint

Publisher
NOI Techpark
Via A.-Volta-Str. 13A
I-39100 Bozen / Bolzano
T +39 0471 066 600
info@noi.bz.it
noi.bz.it

Project management
NOI SpA
noi.bz.it

Graphic design
Nudo Design Sas
nudo-design.com

Printer
Dialog Srl
dialog.bz

Paper for inside pages
Nautilus FSC
100% Recycled

Editorial deadline
Bolzano, May 2026

FSC
www.fsc.org
RECYCLED
Paper made from recycled material
FSC® C008984

Picture credits
Unless otherwise stated on the individual pages, the rights to the individual images are held by the respective institutions presented on the page or by NOI SpA.

Ivo Corrà (cover, p. 2, 3, 5, 8, 9, 12, 14, 15, 20, 21, 22, 23, 24, 25, 26, 32, 34, 39, 48, 49, 52, 60, 65, 67)
Luca Guadagnini (p. 2, 6, 23, 49, 50, 58)
Marco Parisi (p. 2, 3, 25, 28, 29, 30, 31, 36, 45, 49, 51, 55, 56, 61, 63)
Alessandro Cristofoletti (p. 2, 16)
Rosario Multari (p. 3, 46, 51, 59)
Jesús Granada (p. 4, 35)
Stefan Mahlknecht (p. 7)
Daniele Fiorentino (p. 10, 14, 15, 23, 24, 25, 35, 36, 49, 54, 59, 64, 67)
Fanni Fazekas (p. 15)
Andreas Tauber (p. 20)
Francesco Giuliano (p. 24, 46, 57, 67)
Tiberio Sorvillo (p. 29)
Matteo Vegetti (p. 35)
Piero Campalani (p. 35)
Andrea De Giovanni (p. 37)
Annelie Bortolotti (p. 37)
Agnese Martinelli (p. 38)
Mattia Mariotti (p. 40)
Tania Marcadella (p. 43, 49, 54, 62, 65)
Alessandra Chemollo (p. 49, 66)
Simone Bresolin (p. 53)
Damian Pertoll (p. 57)
Günther Pichler (p. 65)

Editor's note
In the Italian Autonomous Province of Bolzano, every road, mountain, river and landmark has an Italian name alongside its German counterpart, with Ladin names present in certain areas as well. The decision to use Italian names throughout this report is purely a stylistic choice.

Acknowledgement
Special thanks are due to the representatives of the research institutes, university, companies and start-ups who contributed data and information.

Footnotes (pp. 5–8)
(1) Third-party funding includes public and private funding obtained by research institutes or the Free University of Bozen-Bolzano over a calendar year through competitive tenders, projects and third-party services.
(2) The total annual turnover of all companies with a registered office at NOI Techpark has been considered.


20