



Scan the QR Code and learn more!

Spoke 4
Digital innovation toward sustainable mountain

Discover the 22 projects of Spoke 4 funded by the NODES cascade calls.

Spoke 4 Digital and Sustainable Mountain promotes the use of digital technologies to improve the performance and sustainability of businesses located in mountain areas.

Themes



Mountain and smart working



Mountain resources management



Mountain regeneration



THE IMPACT ON OUR COUNTRY FROM THE NORTH-WEST TO THE SOUTH

NODES brings together the regions of **Piedmont, Valle d'Aosta** and the westernmost provinces of Lombardy: **Como, Varese and Pavia**. The available PNRR funds amount to over **112 million euros** and will be used to support sustainable and inclusive growth for Italy's **digital and ecological transition**, with positive impacts on the territory. The regions of **Southern Italy** (Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria, Sicily and Sardinia) will also benefit from these funds: **15 million euros** will in fact be dedicated to research activities and cascade funding for businesses in the South.

THE ECOSYSTEM OF DIGITAL AND SUSTAINABLE INNOVATION

NODES - Nord Ovest Digitale E Sostenibile - is **one of the 11 innovation ecosystems** identified by the Ministry of University and Research (MUR) within the framework of the NRRP (Decree No. 1054 of June 23, 2022).

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Spoke 4 coordinated by

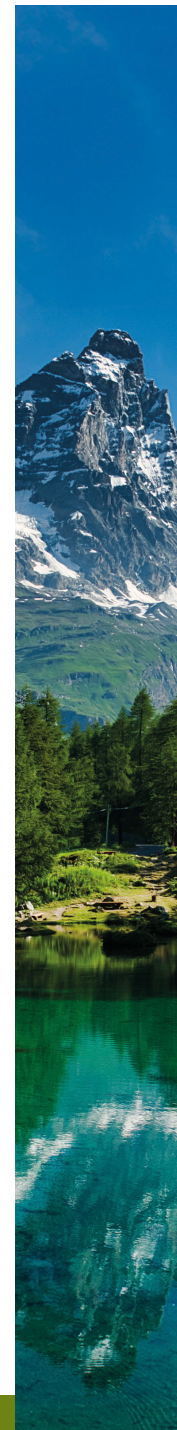
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INNOVATION Industrial PoCs



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Industrial PoCs

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ARBOREA

Line A - Mezzogiorno

Develop a platform for the development and enhancement of innovative models for the management of mountain forest heritage.



DSS4DRTS

Line B Call

Develop a digital decision-support tool to compare the performance and impacts of different types of Demand Responsive Transport Systems.



DT4energy.com

Line A Call

Provide a digital solution to develop renewable energy communities in foothill and mountain areas.



GAIA

Line A Call

Develop a federated software meta-platform for the management of multi-vector renewable energy.



GEEDI

Line A Call

Develop a digital platform for the energy planning and refurbishment of buildings in mountain areas.



HIKE

Line A Call

Develop innovative systems to monitor snow and glaciers and share high-altitude climate data.



MAID

Line A Call

Activate mountain flexplaces to attract digital nomads and promote remote work and sustainability.



MAPP

Line A Call

Envision a new model of immersive museum experience that focuses on the relationship between the tourist and the mountain park.



MOUNTAINEER

Line A Call

Develop a platform to manage mountain water and forest resources and mitigate risks, supporting the digital and sustainable transition.



PERFORM

Line A Call

Optimize the management of energy resources in mountain environments, focusing on the production and transmission of energy from renewable sources.



Silver Mountain

Line A - Mezzogiorno

Promote sustainable and active mountain tourism with inclusive digital solutions for the elderly.



SMARTIDROALPI

Line A Call

Develop an integrated digital hydroelectric system with renewables for mountain micro-communities.



PolarALP

Line A Call

Develop a rapid alert system with fiber optic sensors to prevent natural hazards in high-altitude areas.



SAD

Line A Call

Develop an AI surveillance network for the early detection of wildfires in high-risk areas.



STAMBECCO

Line A Call

Develop a mountain regeneration model to revitalize settlements, activities and biodiversity.



SWIM

Line A - Mezzogiorno

Develop IT solutions, devices, tools and services aimed at supporting activities in the field of remote working.



SAFE

Line A Call

Develop a new methodology for monitoring gravitational phenomena in mountain areas, particularly for rapid flow events.



SaRFIIS

Line A Call

Estimate landslide risk in the Piedmont region and assess its potential impact on road infrastructure.



WOW

Line A Call

Develop an IoT and ML solution to improve well-being and productivity in mountain workplaces.



WIMOBI

Line A - Mezzogiorno

Develop on-demand digital solutions to optimize mobility in Low-Demand Areas.



SecureFWA

Line B Call

Make Fixed Wireless Access networks the primary internet access technology in mountain areas, enhancing their security and ease of maintenance.



SERENA

Line A Call

Develop innovative digital pressure sensors to monitor pressurized pipelines.



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