

# DIVERSE NEWS

## FROM THE INTERREG ALPINE SPACE PROJECT

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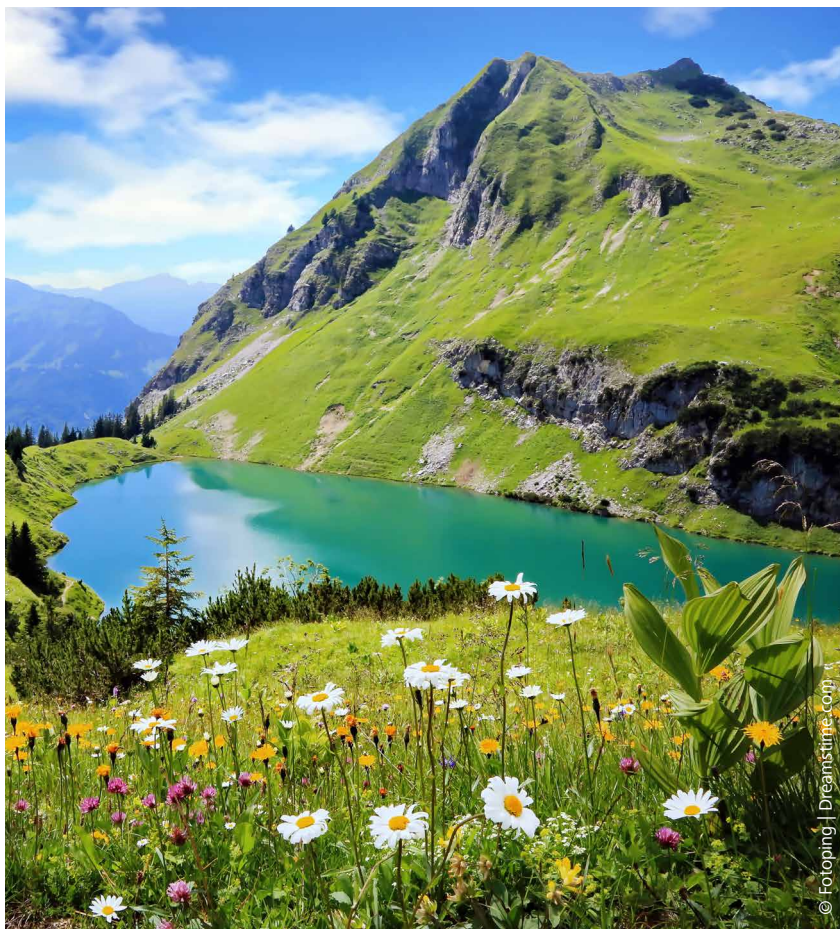
Integration of bioDIVERSity conservation within bioEnergy production

### Welcome to the First Newsletter

Cristina Cavicchioli/Lead  
Partner - RSE - Ricerca sul  
Sistema Energetico

Our journey began with a successful kick-off meeting in Munich, where partners from **five countries** – regional authorities, research institutions, industry leaders and environmental organizations came together. We're focused on integrating biodiversity protection into bioenergy value chains, especially forestry and agricultural residues.

Stay tuned as we innovate for sustainable bioenergy while safeguarding the Alpine region's rich biodiversity!



### DIVERSE: Bioenergy Meets Biodiversity in the Alps

Research on Energy System, Lead Partner, and A.L.O.T., LP's Support - Italy

The DIVERSE project seeks to balance **bioenergy production** with **biodiversity conservation** across urban, agricultural, forested, and protected landscapes in the Alpine region. Our focus lies in three areas: (1) **Integrating biodiversity** into local energy and climate plans by improving biomass management in urban zones, (2) Promoting **sustainable biomass use** in rural areas through improved forestry and agro-ecological practices and (3) Developing **circular bioenergy business models** that combine economic sustainability with ecosystem protection. By collaborating across five countries, we aim to ensure renewable energy growth while preserving biodiversity.



## Bioenergy Production comes with Tradeoffs and some Win-wins for Biodiversity

Prof. Adam Clark / University of Graz, Austria

**Biodiversity-bioenergy relationships are complex and full of trade-offs. Bioenergy is often presented as an attractive 'green', relatively cheap, low-technology renewable energy solution. In practice these applications have a chequered history and tend to come at a steep cost to biodiversity without careful management.**

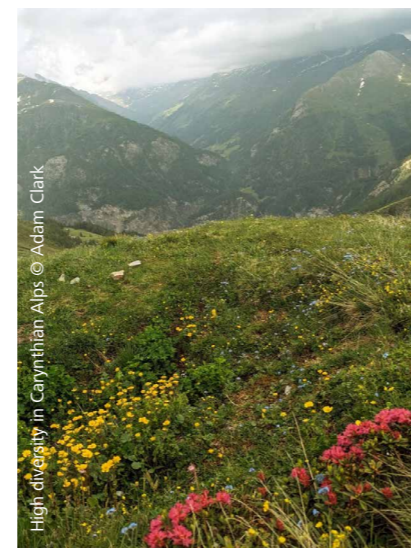
Human appropriation of biomass for energy makes up a large fraction of our total biomass consumption. However, this does not mean that bioenergy represents a major component of the human global energy portfolio. For example, while roughly 20% of European wood consumption goes towards energy production, **wood bioenergy** accounted for **less than 7%** of total EU energy use in 2011. Thus, while bioenergy probably only has limited use for targeted applications in green energy production, increased bioenergy demand has the potential to severely damage natural ecosystems.

Especially in Europe, the pull between the goals of bioenergy production and biodiversity preservation poses a thorny trade-off. In general, annual biomass production

is maximised in woody habitats such as forests; however, open meadows and grasslands in Europe, where bioenergy production is typically much lower, are home to some of the most biodiverse ecosystems on Earth, particularly with respect to local-scale plant diversity. Similarly, processing of crop residues can increase bioenergy yields, but also risks soil health, and removes overwintering habitat for many animals and microbes.

Some potential compromises, including low-intensity bioenergy production in grassland systems, or selective logging in mixed-age polyculture forests have the potential to support both biodiversity conservation and limited bioenergy production. Similarly, increased biodiversity, and in particular increased tree biodi-

versity, also has the potential to indirectly reduce energy needs in some cases. Greening cities, for example, can help drive significant **reductions in urban heat island** effects, lowering summer temperatures and associated energy use for active cooling.



High diversity in Carinthian Alps © Adam Clark

## Open Dialogue Toolkit: The Structure

Anna Zeindl / Landshut University of Applied Sciences, Germany

The partnership is currently working on the **Open Dialogue Toolkit**: a set of tools, which supports an open discussion and network-building between relevant stakeholders of the pilots of the project (Focus Labs). The aim is to guide bioenergy and biodiversity actors towards a joint identification of solutions to improve the sustainability of regional bioenergy value-chains. The structure of the Toolkit consists out of three parts. In the first part, the Data Lake, relevant data will be collected through a SWOT and PESTLE analysis of survey data.

The corresponding survey had been conducted from December 2024 until January 2025. An engagement protocol will be developed as the second part and as a last part, the use of various technical tools and scientific methodologies (e.g. MCA, CBA, LCA) will be explained in detail.



## Seven Pilot Regions Launch Focus Labs for Bioenergy

Petra Kurinčič / Regional Development Agency of Ljubljana Urban Region, Slovenia

**The DIVERSE project has launched Focus Labs in seven Alpine regions to develop sustainable bioenergy while preserving biodiversity. These labs bring together local authorities, researchers, and agencies to find innovative solutions.**

In **Styria, Austria**, strong political support meets challenges in integrating biodiversity into bioenergy. **France's Auvergne-Rhône-Alpes** benefits from favorable regulations but faces concerns over resources and biodiversity risks. **Bavaria, Germany**, focuses on building political support and creating jobs.

**Slovenia's Ljubljana** Marshes lab balances bioenergy with wetland conservation. In **Lombardy, Italy** challenges in legislation and communication across the supply chain. **Veneto, Italy** explores innovative biomass use under Veneto Agricoltura, and **Piedmont, Italy** promotes forest-based bioenergy.

Together, these labs aim to refine policies, upgrade infrastructure, and foster a sustainable Alpine bioenergy future.

## DIVERSE Project Releases First Key Findings on Bioenergy

Ilaria Re / Lombardy Green Chemistry Association, Italy

**The first key finding has been released: a comprehensive analysis of sustainable bioenergy in the Alpine Space.**

Using PESTLE analysis, the report examines the political, economic, social, technological, legal and environmental factors shaping the sector. Insights from seven regional Focus Labs highlight opportunities and challenges, offering a foundation for policy recommendations and investment strategies. These findings mark a significant step toward resilient, biodiversity-conscious bioenergy solutions.



Discover key insights from the PESTLE analysis on the **DIVERSE website!** This work explores the landscape of sustainable bioenergy in the Alpine Space in order to support strategies and policies. One step forward towards a low-carbon future that respects biodiversity.



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## DIVERSE's Next Steps: Indicators, Workshops and Dialogue

Cristina Cavicchioli /  
Research on Energy System, Italy

The next phase of the DIVERSE project focuses on defining **key indicators** to monitor biodiversity, sustainability, and the impacts of bioenergy value chains in pilot areas, guiding future actions. We're launching roundtables and workshops with **Pilot Negotiation Groups** to gather insights from political and economic stakeholders and foster dialogue.

Using the **Open Dialogue Toolkit**, we aim to co-develop sustainable solutions that balance bioenergy with biodiversity. Across five countries, we'll promote sustainable forestry, circular bioeconomy models, and renewable energy while protecting ecosystems.

## General Contact & Further Information

### Lead partner of DIVERSE project

Research on the Energy System - RSE  
Contact person: Cristina Cavicchioli  
E-Mail: [Cristina.cavicchioli@rse-web.it](mailto:Cristina.cavicchioli@rse-web.it)  
[www.rse-web.it](http://www.rse-web.it)

### Find more information about the project on:

[www.alpine-space.eu/project/diverse](http://www.alpine-space.eu/project/diverse)

THE NEXT DIVERSE NEWSLETTER WILL BE AVAILABLE IN OCTOBER 2025!

## DIVERSE Project Partners

