



# NEWSLETTER



Funded by the European Union under grant agreement No. 101131859. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or EUSPA. Neither the European Union nor the granting authority can be held responsible for them.



[comunidad-project.eu](http://comunidad-project.eu)



# FROM KICK OFF MEETING 2024 ...

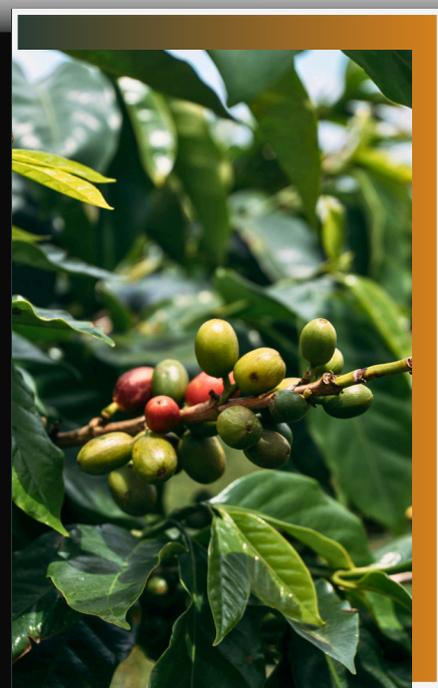
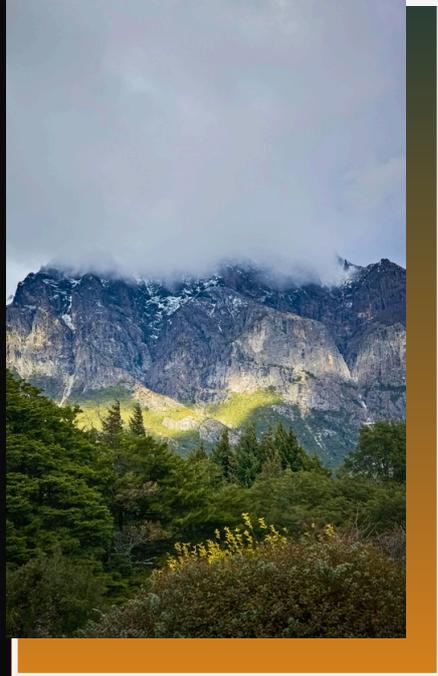




**TO  
FINAL EVENT 2026 & BEYOND**



# TABLE OF CONTENTS



- 01 Project Kick-Off Meeting
- 02 First Wave of Regional Workshops
- 03 Pilot Site Visits
- 04 Stakeholder Meetings
- 05 Building Strategic Partnerships
- 06 COMUNIDAD at MCYR 2025
- 07 COMUNIDAD Hackathons
- 08 Hackathon Volume I: Winners – Colombia
- 09 Hackathon Volume I: Winners – Chile

- 10 Partner Catch-Ups: Reflections and Progress
- 11 Hackathon Volume II: Colombia Edition
- 12 Hackathon Volume II: Chile Edition
- 13 Second Wave of Regional Workshops
- 14 COMUNIDAD Scientific Publications
- 15 COMUNIDAD Video Highlights
- 16 COMUNIDAD Final Event
- 17 Project Kick-Off Meeting
- 18 Looking Ahead: The Way Forward



1



# PROJECT KICK-OFF MEETING

Madrid, Spain | March 21–22, 2024

The COMUNIDAD consortium officially launched the project supported by Horizon Europe (Grant Agreement No. 101131859). The meeting brought together partners from Europe, Chile, and Colombia to initiate a long-term collaboration focused on sustainable agriculture and forestry through Copernicus and EGNSS data.

The two-day hybrid meeting provided a platform to align project objectives, management structures, and implementation strategies. Partners reviewed contractual obligations, reporting procedures, and coordination tools, ensuring a shared understanding of roles and responsibilities from the outset.



## Implementation and Technical Framework

Key work packages were presented, covering system architecture, platform development, pilot applications, and capacity-building activities. Special emphasis was placed on the COMUNIDAD Platform, which integrates Copernicus and GEOSS data into user-oriented services for stakeholders in Chile and Colombia. Open discussions after each session helped refine technical approaches.

## Networking and Team Building

Informal exchanges during coffee breaks and shared meals strengthened personal connections within the consortium. These moments fostered trust, encouraged open dialogue, and reinforced collaboration across institutions and regions.

## Communication, Collaboration, and Impact

The second day focused on communication, dissemination, and exploitation activities. Partners agreed on a shared visual identity, outreach strategy, and digital presence, including the project website and communication materials. An interactive survey and partner interviews supported transparency and contributed to long-term impact planning.

## A Strong Foundation for the Project Journey

The meeting established a solid foundation for COMUNIDAD's journey. By uniting technical expertise, strategic planning, and international partnership, the consortium set a vision for delivering data-driven sustainability solutions in Latin America.



# WORKSHOPS FIRST WAVE

Chile & Colombia | 24 Nov. - 7 Dec., 2024

## ***Building capacity and shared understanding***

From 24 November to 7 December 2024, a series of workshops took place in Colombia and Chile as part of COMUNIDAD's WP3 activities. These introductory workshops aimed to support practical, data-driven solutions for coffee growers in Colombia and agricultural, forestry, and livestock communities in Chile.

### **Colombia workshops**

In Colombia, the programme included meetings at the Czech Embassy and the National Federation of Coffee Growers (FNC) in Bogotá, followed by visits to Cenicafé, the Coffee Growers' Committee in Manizales, and the Universidad Autónoma de Manizales. Field visits to coffee farms enabled direct engagement with farming families, allowing partners to explore local practices, user needs, and available data.

### **Chile workshops**

In Chile, the programme included meetings at the Czech Embassy in Santiago and high-level discussions with national and academic stakeholders, including the Ministry of Agriculture, the University of Chile, and the Copernicus Relay Center. Visits to Sociedad Nacional de Agricultura, AgroTech Chile, and the Region of Aysén strengthened links with innovators, local users, and regional partners.



comunidad-project.eu



## ***“Knowledge exchange drives meaningful co-creation.”***

By bringing together researchers, practitioners, public authorities, and regional organisations, the first wave of COMUNIDAD project workshops laid the foundations for co-creation, aligning innovation with real needs from the outset. Through open dialogue and joint discussions, participants exchanged expertise, identified key challenges, and explored how Earth Observation data could support sustainable agricultural and forestry practices. These early interactions strengthened partnerships and reinforced a shared commitment to developing locally relevant, data-driven solutions.

### **Explore More:**

- Explore the first wave of COMUNIDAD workshops [HERE](#).
- Discover regional workshops in Chile and Colombia [HERE](#).
- The future of sustainable agriculture and forestry [HERE](#).
- Strengthening innovation through regional dialogue [HERE](#).
- COMUNIDAD Workshop with CIEP [HERE](#).
- Driving innovation in Caldas [HERE](#).



# PILOT SITES VISITS

## *Understanding Local Needs, Co-Creating Solutions*

Pilot site visits in Colombia and Chile constituted a core COMUNIDAD activity, providing first-hand insight into local agricultural systems and strengthening collaboration with regional stakeholders. Through direct engagement in the field, project partners gained a deeper understanding of territorial conditions, production practices, and environmental challenges. These visits enabled continuous dialogue with farmers, institutions, and local experts, fostering mutual learning and trust.

By combining scientific expertise with practical knowledge, partners were able to align technological solutions with real community needs and operational realities. To ensure broad knowledge sharing, field activities were systematically documented through detailed blog posts, news articles, and on-site videos. These materials presented complementary perspectives on project implementation in each country and contributed to transparency and outreach.



Live updates shared via social media platforms, including Instagram, provided real-time insight into fieldwork activities, stakeholder engagement, and local contexts. This digital communication strengthened visibility and encouraged wider participation within the COMUNIDAD network. Through structured field interactions, documentation, and open exchange, pilot site visits became a key mechanism for knowledge transfer, co-creation, and capacity building. They supported long-term cooperation and reinforced COMUNIDAD's commitment to developing locally relevant, data-driven solutions.

Project partners worked closely with farmers, institutions, and local experts to observe field practices, assess operational challenges, and exchange knowledge on the application of Earth Observation data. These interactions supported evidence-based decision-making and promoted the integration of digital tools into everyday agricultural management.

By linking satellite information with field observations and local experience, COMUNIDAD strengthened its ability to design scalable, practical, and sustainable solutions for territorial development.

## Colombia

### Explore More

- Colombia pilot site visit – video. [HERE](#).
- Colombia pilot site visit – blog article. [HERE](#).
- Strengthening COMUNIDAD in Colombia. [HERE](#).

The pilot site visit in Colombia brought project partners together with local stakeholders to observe agricultural contexts and exchange practical knowledge. Through field observations and discussions with farmers and institutions, participants gained valuable insights into everyday practices and key challenges.

The visit was documented through a dedicated blog article and on-site video, capturing local perspectives and key moments and sharing them across the wider COMUNIDAD community.



## Chile

### Explore More

- Chile pilot site visit – video. [HERE](#).
- Chile pilot site visit – blog article. [HERE](#).
- Strengthening COMUNIDAD in Chile. [HERE](#).

The pilot site visit in Chile brought project partners together with local stakeholders to observe agricultural practices and exchange practical knowledge. Through field observations and discussions with farmers, institutions, and regional actors, participants gained valuable insights into local conditions and key challenges.

The visit was documented through a dedicated blog article and an on-site video, capturing key moments, local perspectives, and reflections, and sharing them across the wider COMUNIDAD community.

# STAKEHOLDERS MEETINGS



## *Engaging institutions and regional actors*

Stakeholder meetings in Chile and Colombia brought together farmers, researchers, institutions, and decision-makers to foster dialogue, identify local needs, and co-create practical, data-driven solutions.



In Colombia, COMUNIDAD engaged with national and regional institutions to discuss the role of Earth Observation data in agriculture, climate action, and innovation. Meetings highlighted the importance of coordination between research, policy, and local implementation.

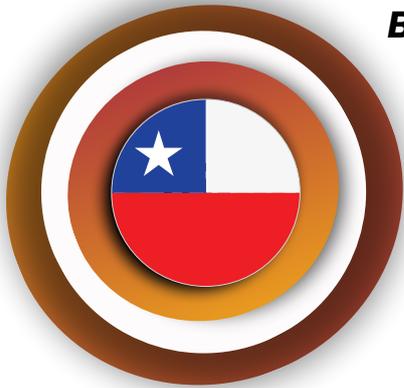
### Explore More:

- COMUNIDAD engagement with the Czech Embassy. [HERE](#).
- Dialogue with the Ministry of Agriculture. [HERE](#).
- Strengthening collaboration with SICA Colombia. [HERE](#).
- Working with CENICAFÉ on agricultural innovation [HERE](#).
- Technology, climate, and sustainability: COMUNIDAD in Manizales. [HERE](#).
- COMUNIDAD workshop with the regional government of Caldas. [HERE](#).





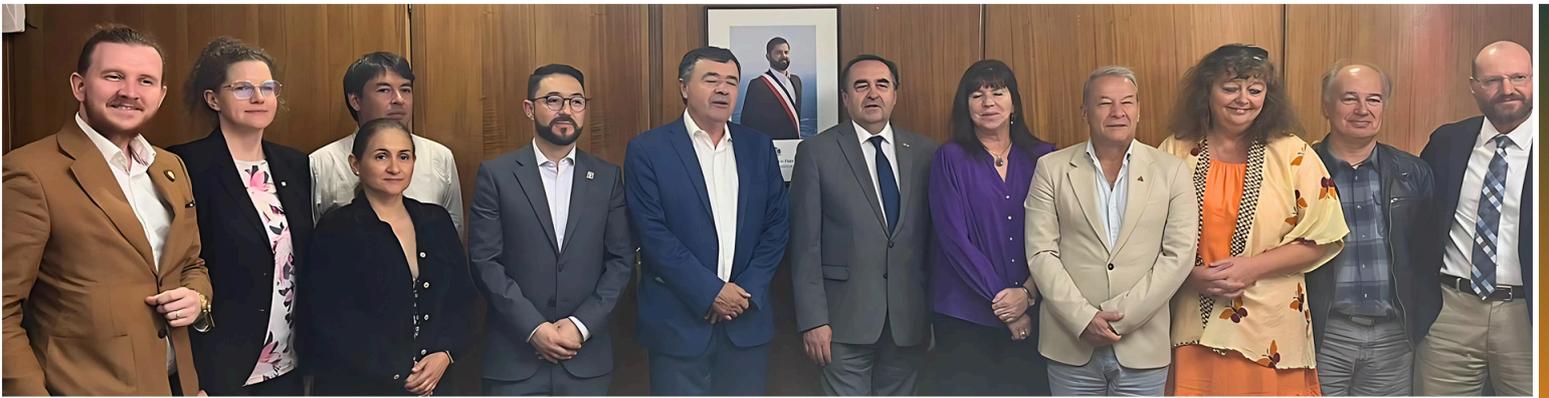
## ***Building networks and institutional cooperation***



In Chile, stakeholder meetings focused on strengthening cooperation with regional networks, research centres, and sector organisations. Discussions addressed innovation, geospatial collaboration, and the integration of Earth Observation data into regional initiatives.



These meetings strengthened trust, encouraged cross-sector cooperation, and deepened mutual understanding. By connecting local experience with scientific expertise and policy perspectives, COMUNIDAD ensured that stakeholder engagement remained central to developing relevant and sustainable solutions.



### **Explore More:**

- Collaboration with SNA and AgroTech Chile [HERE](#).
- Engagement with CMM and regional innovation actors [HERE](#).
- COMUNIDAD participation in CCC and regional platforms [HERE](#).
- Advancing geospatial collaboration and regional data initiatives [HERE](#).
- COMUNIDAD at the IDE Aysén table and regional geoportal launch [HERE](#).





## PARTNERSHIPS

***Collaboration is at the core of COMUNIDAD.***

COMUNIDAD, DINOSAR, and UDENE have formed a strategic partnership to turn Copernicus satellite data into practical solutions for sustainable development. Supported by the European Union, the projects focus on agriculture, forestry, and rural innovation in Chile and Colombia. COMUNIDAD leads this effort by working closely with local stakeholders and developing digital tools tailored to real needs.

DINOSAR strengthens the collaboration by advancing smart farming in Colombia. Combining optical, infrared, and radar data enables precision agriculture even in challenging weather conditions.

UDENE extends the partnership to urban environments through a virtual laboratory for testing development scenarios. Using Copernicus satellite data, it supports evidence-based and sustainable city planning. This approach helps cities explore policy options, manage growth, and improve environmental performance.

Together, the three projects connect rural and urban innovation. By sharing knowledge and technology, they promote sustainability, empower local users, and expand the impact of European space solutions across Latin America and beyond.

Discover the tripartite partnership [\*\*HERE\*\*](#).



## Strengthening space data for sustainable impact

At the BIO-CAPITAL General Assembly in Prague, COMUNIDAD took centre stage in a strategic discussion on how Copernicus and EGNSS data can contribute to sustainability solutions across regions. The presentation highlighted synergies between COMUNIDAD and the BIO-CAPITAL project, particularly in areas like biodiversity protection, sustainable finance, and the use of geospatial tools to support rural development and forestry.

This collaboration emphasises how combined expertise and shared approaches can broaden the reach and impact of Earth Observation data in addressing real-world challenges.



Read about this partnership [HERE](#).

## Connecting innovation ecosystems through collaboration

COMUNIDAD took part in Synergy Days in Barcelona, a key event organised by SmartAgriHubs, bringing together European projects and innovation actors to exchange experiences, align approaches, and explore synergies across agri-food and digital innovation initiatives.

Read about COMUNIDAD at Synergy Days [HERE](#).



# Synergy Days

BY SMARTAGRIHUBS | BARCELONA

# EMPOWERING EARLY-CAREER RESEARCHERS

Prague, Czech Republic | 9-10 Oct., 2025



## COMUNIDAD at MCYR 2025: Empowering Young Innovators for Resilient Communities

### Young Minds. Bold Ideas.

#### Real Impact!

Hosted by the Czech University of Life Sciences Prague, the International Multidisciplinary Conference for Young Researchers (MCYR) is an annual platform that supports early-career scientists in sharing research, building interdisciplinary networks, and developing professional skills. Hosted at the Czech University of Life Sciences Prague, it brings together young researchers from diverse fields to exchange ideas and explore innovative solutions.

### COMUNIDAD at MCYR 2025

In October 2025, COMUNIDAD co-organized the 6th International Multidisciplinary Conference for Young Researchers (MCYR 2025) in Prague, bringing together over 200 early-career scientists from around the world. Under the theme "Science and Innovation: Advancing the Path to a Sustainable Future," the conference closely reflected COMUNIDAD's mission to promote data-driven, community-centred solutions through AI and geospatial technologies.

More details can be found [HERE](#).

## COMUNIDAD at MCYR 2025



[mcyr.ftz.cz.czu.cz](http://mcyr.ftz.cz.czu.cz)

Join us to exchange ideas, build lasting networks, and foster interdisciplinary collaboration.





## ***Recognising the power of satellite data for community resilience***

The MCYR 2025 Storytelling Competition, "Your Research, Your Story," provided early-career researchers with a structured platform to present their work in a narrative format linked to applied research and societal relevance. Within the COMUNIDAD category, participants focused on the use of geospatial data, remote sensing, and digital tools to address environmental and community challenges.

By encouraging clear communication of research objectives, methods, and impacts, the competition supported knowledge transfer, stakeholder engagement, and wider understanding of Earth Observation applications.

One of the highlights of MCYR 2025 was the recognition of Anxhela Hameti from the Czech University of Life Sciences Prague, who was recognised in the category "COMUNIDAD: Geospatial Intelligence for Community Resilience" for her narrative on using satellite remote sensing and GIS analysis to explore land-use changes in Albanian coastal wetlands. Her work highlighted how spatial analysis can reveal environmental transformations.

The award demonstrated the practical value of geospatial data for monitoring, decision-making, and resilience planning, reflecting COMUNIDAD's mission to promote evidence-based and community-oriented solutions.

Read Anxhela's winning story [HERE](#).

Through research, storytelling, and satellite data, COMUNIDAD continues to empower young researchers to transform knowledge into community-driven solutions.





# HACKATHONS VOL. I

## Phase One: COMUNIDAD Hackathons – From Data to Action

The COMUNIDAD Hackathons were launched as regional innovation challenges designed to support sustainable development, climate resilience, and environmental management in Chile and Colombia. Bringing together researchers, developers, students, and local stakeholders, these events focused on transforming satellite data, AI tools, and geospatial technologies into practical digital solutions for real-world challenges.

Through hands-on collaboration and interdisciplinary teamwork, Phase One created a foundation for technology transfer, capacity building, and long-term innovation in vulnerable regions.

Read all about the first COMUNIDAD hackathons [HERE](#) and [HERE](#).



# COFFEE HACKATHON



Organizers:



# Co-creating geospatial solutions through innovation challenges

## Chile Hackathon: Patagonia Focus

The Chile Hackathon addressed key environmental challenges in Patagonia through geospatial and AI-based solutions for climate adaptation, glacier and lake monitoring, and sustainable land management.

### Key Challenges

- Hacked tu Terruño: Integrating satellite, drone, and climate data for land-use planning.
- IceEnd-Hack: Developing tools for glacier and glacial lake monitoring and early warning systems.

These challenges promoted innovative approaches to regional resilience and environmental safety.

Chile hackathon details [HERE](#).

## Colombia Hackathon: Coffee Region

The Colombia Hackathon focused on strengthening environmental resilience in coffee-growing regions through AI and satellite data. Participants developed tools for sustainable agriculture, risk assessment, and ecosystem protection.

### Key Challenges

- Mapping Landslide Zones: Predictive models for identifying high-risk areas.
- Monitoring Coffee Plantations: AI-based systems for tracking land-use change and deforestation.

The challenges supported data-driven decision-making and sustainable land management.

Colombia hackathon details [HERE](#).



Funded by  
the European Union



# HACK PATAGONIA



# COFFEE HACKATHON



## VOL. 1 WINNERS

COMUNIDAD hackathons brought together students, researchers, developers, and local actors to explore how geospatial data can support decision-making in agriculture, climate resilience, and territorial planning. Organised in Chile and Colombia, these innovation challenges combined capacity building, teamwork, and real regional case studies.

Discover the COMUNIDAD hackathon concept [HERE](#).

This initial hackathon laid the groundwork for experimentation and learning, setting the stage for a second hackathon phase, where ideas, teams, and approaches will be further developed and expanded. Hackathon II and its outcomes are presented later in this newsletter.



### Colombia – COMUNIDAD Hackathons Launching Phase 1

In Colombia, COMUNIDAD launched Phase 1 of its hackathon programme, introducing participants to the objectives, structure, and challenges of the innovation process. The launch set the stage for collaborative work focused on applying geospatial data to local contexts, reinforcing capacity building and engagement with regional challenges from the outset.

Launch of COMUNIDAD hackathons Phase 1 (Colombia) [HERE](#).



1

## CaféCracks

Smart tool to measure and reduce the carbon footprint of coffee. Focused on the cultivation phase, it shows how coffee can capture more carbon than it emits. A replicable solution helping farmers make production more sustainable and climate-friendly.



## Laboratorio Social de Cambio Climático

2



Innovative model to monitor landslide risk in coffee watersheds of Caldas. Using physical simulations and territorial data, it identifies risk zones and supports early warning systems, strengthening sustainable planning in vulnerable rural areas.

3

## Support Coffee Machine

AI-powered web app to visualise landslide susceptibility in Caldas, Colombia. Combining Machine Learning and satellite data, it delivers precise risk predictions through an interactive platform, empowering data-driven decisions for safer, more resilient coffee regions.



Read all about the winners [HERE](#).



**HACK**  
**PATAGONIA**

## **VOL. 1 WINNERS**

### **Co-creating geospatial solutions through innovation challenges**

#### **Chile – COMUNIDAD Geospatial Hackathon Launching innovation in Patagonia**

The COMUNIDAD Geospatial Hackathon in Chile launched in Coyhaique. It marked a milestone as the first geospatial hackathon held in Patagonia, bringing together participants to work on data-driven solutions addressing local needs, launching a new space for collaboration between technology, research, and regional challenges.

Throughout the process, teams engaged with mentors and experts, combining technical skills with regional knowledge.

Hackathon launch in Chile [HERE](#).

Hackathon launches in Coyhaique, Patagonia [HERE](#).

Inside Chile's COMUNIDAD geospatial hackathon [HERE](#).

#### **Hackathon Results & Teams: From ideas to solutions**

The winning teams were recognised for their innovative use of geospatial data to address climate-related and territorial challenges relevant to the region. Alongside the competition, strong emphasis was placed on mentorship and collaboration, supporting participants throughout the development process and fostering knowledge exchange beyond the event itself.

Meet the Hackathon winners [HERE](#).

Behind the code: mentorship and collaboration [HERE](#).



# 1 COIPO

Equipo

**Ganador**  **Primer Lugar**

Institución/Organización: Universidad de Santiago de Chile

Desafío: Hackea tu terreno 

**Hack Patagonia** 

Participantes:

- Anahí Rayen Gómez
- David Alejandro Flores
- Javiera Basal
- Victor Alejandro Marril



## Challenge: IceEnd Hack

CryoScope was awarded second place for developing an interactive platform for glacier monitoring in the Aysén region. The project combines satellite data, simulations, and educational tools to support early warning systems and climate awareness. By linking scientific analysis with local culture and communication, the platform strengthens public understanding and informed environmental decision-making.

# 3 PATAGONIA

Equipo

**Ganador**  **Tercer Lugar**

Institución/Organización: Universidad de Católica del Norte

Desafío: ICE End Hack 

**Hack Patagonia** 

Participantes:

- Carlos Arauco
- Raul Hidalgo
- Jhon Vallecilla



## Challenge: Hackea tu Terruño

COIPO received first place for a proposal addressing the environmental impacts of salmon farming in Aysén’s fjords. Their project proposed a public environmental observatory integrating satellite data, open platforms, and real-time monitoring tools to track pollution, algal blooms, and ecosystem change. The solution promotes transparency, strengthens community engagement, and supports evidence-based management of natural resources through accessible digital services.

# 2 CryoScope

Equipo

**Ganador**  **Segundo Lugar**

Institución/Organización: Universidad San Sebastian

Desafío: ICE End Hack 

**Hack Patagonia** 

Participantes:

- Juan Pablo Cárdenas
- Maximiliano Álvarez
- Florencia Castillo
- Juan Salcedo
- Carlos Campos



## Challenge: IceEnd Hack

PatagonIA earned third place with Patg-Ice, an AI-based tool for monitoring overflow risks in Laguna San Rafael. Using satellite imagery, automated analysis, and tailored visualisations, the system supports scientists, tourists, and local communities in risk management. The solution demonstrates how advanced technology can enhance safety, preparedness, and conservation in vulnerable landscapes.



# CATCH UP WITH PARTNERS

## *Perspectives from across the COMUNIDAD consortium*

At the project's midpoint, COMUNIDAD partners came together to reflect on progress, share experiences, and align next steps. These exchanges highlighted how collaboration, local knowledge, and technical expertise have shaped activities across regions. In this section, partners look back on key achievements and forward to the impact still to come.

10

Hynek Roubík

***Czech University of Life  
Sciences Prague (CZU),  
Czech Republic***

An inside look at how COMUNIDAD is transforming research, digital innovation, and regional collaboration into practical solutions. This update highlights progress on the platform, outreach activities, and hackathons in Colombia and Chile, showing how project results are moving from development to validation and real-world use.

Watch the full partner catch-up [HERE](#).





## Iván Rivero Sanz

### ***Socialinnolabs Foundation, Spain***

A closer look at how field experience, financial strategy, and innovation management are shaping COMUNIDAD's long-term impact. This update highlights insights from missions in Colombia and Chile, showing how listening to farmers, ranchers, and local communities is guiding the development of practical, scalable solutions. By linking research with real needs, this work helps turn project results into sustainable tools for institutions, innovators, and communities across Latin America.

Watch the full partner catch-up [\*\*HERE\*\*](#).

## Olga Lucía Ocampo

### ***Universidad Autónoma de Manizales (UAM), Colombia***

A spotlight on how regional collaboration and field exchange are strengthening COMUNIDAD's climate-smart solutions. This update shares insights from workshops and field visits in Chile, showing how experiences from coffee farming, environmental management, and innovation systems in Colombia can support shared challenges across Latin America. By connecting research on water, land use, and climate risks, this work helps build long-term cooperation and practical pathways for sustainable agriculture and territorial planning.

Watch the full partner catch-up [\*\*HERE\*\*](#).





## Johnny Valencia-Calvo

### ***University of Aysén, Chile***

An inside look at how COMUNIDAD's pilot activities are turning digital innovation into practical tools for territorial management. This update highlights ongoing work in Chile and Colombia, where AI and Copernicus satellite data are being used to support informed decision-making in agriculture, land use, and environmental governance. By combining field insights, local knowledge, and advanced spatial analysis, these pilots are helping communities and institutions address real challenges and build more resilient, data-driven development pathways.

Watch the full partner catch-up [\*\*HERE\*\*](#).



## Jiří Kvapil

### ***LESprojekt, Czech Republic***

A closer look at how hands-on field engagement is strengthening COMUNIDAD's pilot activities in Chile and Colombia. This update highlights how direct collaboration with farmers, local stakeholders, and decision-makers helps connect European digital innovation with real territorial needs. By promoting the practical use of Copernicus satellite data and translating complex information into accessible tools, this work supports more informed, resilient, and sustainable decision-making across partner regions.

Watch the full partner catch-up [\*\*HERE\*\*](#).





## Marcela Samarotto

### ***Foundation for Agrarian Innovation (FIA), Chile***

An inside look at how innovation policy and satellite technology are coming together to support sustainable development in Chile's Aysén Region. This update highlights work at the COMUNIDAD pilot site, where Copernicus data and AI tools are being applied to monitor forests, snow cover, and agricultural activities. By connecting European innovation with local priorities, this collaboration helps strengthen decision-making, build regional resilience, and translate research into practical solutions for rural communities.

Watch the full partner catch-up [HERE](#).

## Juan Rodrigo Sanz

### ***Federación Nacional de Cafeteros de Colombia, (FNC), Colombia***

A closer look at how shared field experience in Colombia and Chile is shaping practical digital tools for farmers and land managers. This update highlights how joint visits to coffee-growing and timber-producing regions helped identify common challenges and opportunities for innovation. By connecting local knowledge with satellite data and AI-based applications, this work supports better decision-making, sustainable resource management, and environmentally responsible agricultural practices.

Watch the full partner catch-up [HERE](#).



# HACKATHON CAFETERA

## VOL. II

COMUNIDAD Hackathon II marked the next stage of the project's innovation journey, concluding 24 hours of intensive collaborative work carried out simultaneously in Chile and Colombia.

Building on the foundations established during the first hackathon phase, participants advanced their ideas through hands-on teamwork, mentorship, and focused problem-solving. Teams worked under time pressure to refine concepts, apply geospatial data, and respond to real regional challenges using Earth Observation-based approaches.

Read about it [HERE](#).



# VOL. II WINNERS

1

Coocentral



Carlos Vidal Gonzalez Lugo  
Diego Alejandro Gutierrez  
Juan Camilo Diaz Losada



Conoce tu tierra,  
decide mejor

2



Jose David Méndez Buitrago  
Valeria Gomez Guerra

3

CaféVision

Jhon Sebastián Díaz Villa  
Jorge Eduardo Agudelo Orozco



## Hack Patagonia

### Chile Patagonia Hackathon II – FireData Copernicus Challenge

From November 28–29, 2025, COMUNIDAD Hackathon II took place in Chilean Patagonia, where participants developed AI-driven geospatial tools to strengthen forest fire monitoring, risk assessment, and ecological impact analysis in the Aysén Region. Using real Copernicus satellite data, teams developed solutions for fire detection, damage assessment, and ecosystem recovery.

The hackathon was supported by COMUNIDAD’s digital infrastructure, including virtual servers, pre-processed datasets, APIs, and tutorials for rapid prototyping. With expert mentoring and jury evaluation, participants transformed satellite data into practical tools for wildfire management and environmental resilience.

Read the full story of COMUNIDAD Hackathon II [HERE](#).



# VOL. II WINNERS

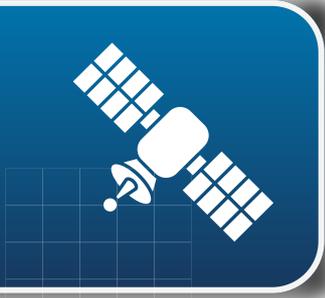
## Innovation under pressure

### TEAM FIREBAY



The winning team from the Universidad Católica del Norte (Antofagasta, Chile) developed a web and mobile platform designed to support wildfire prevention and monitoring, combining real-time data visualisation with an intuitive traffic-light alert system.

The solution integrates temperature, humidity, and wind data to assess risk levels and trigger threshold-based alerts, helping translate environmental data into actionable insights for early response.



# WORKSHOPS SECOND WAVE



## *From capacity building to operational deployment*

The second wave of COMUNIDAD workshops marked a step forward in translating knowledge exchange into applied innovation and strategic coordination across Chile and Colombia

In Colombia, technical workshops focused on advancing agricultural and environmental innovation through hands-on sessions and close collaboration with institutional partners. These activities strengthened dialogue between research, public authorities, and local actors, reinforcing the role of Earth Observation data in addressing regional challenges.





## ***“Turning knowledge into coordinated action.”***

In Chile, a high-level strategic workshop held in the Aysén region supported operational deployment and long-term planning. Discussions centred on aligning technical solutions with regional strategies, governance frameworks, and future implementation pathways.

### **Read more about the COMUNIDAD second wave of workshops:**

- COMUNIDAD launches its second wave of workshops [HERE](#).
- Advancing agricultural and environmental innovation in Colombia [HERE](#).
- Strategic workshop supporting operational deployment in Chile’s Aysén region [HERE](#).



8 scientific outputs

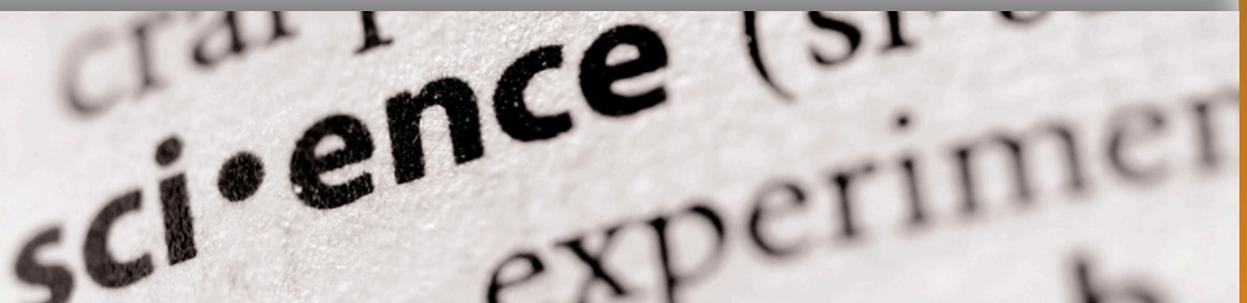
**TRANSFORMING  
RESEARCH INTO  
PRACTICAL,  
TERRITORIAL IMPACT**



Since 2024, the COMUNIDAD team has steadily built a growing portfolio of scientific publications that reflect the project's commitment to innovation, sustainability, and international collaboration. Between 2024 and 2026, a total of 8 scientific outputs have been published or accepted, spanning conference proceedings, peer-reviewed journal articles, and in-press research papers.

These publications range from artificial intelligence applications in farm management to bioenergy production from agricultural residues, to the thermo-chemical characterization of coffee by-products, and to microbiological innovations for composting and soil health. Together, they demonstrate how COMUNIDAD bridges geospatial data, laboratory research, digital technologies, and sustainable agricultural practices.

More details can be found [HERE](#).



# THE COMUNIDAD PLATFORM

The what, the who and its main applications

## COMUNIDAD Platform

Discover Data-Driven Innovation for Agriculture & Environment

### What Is the COMUNIDAD Platform?

The COMUNIDAD Platform is a digital infrastructure that integrates Copernicus Earth observation data, EGNSS positioning tools, and advanced spatial analytics into one powerful environment for users in Chile, Colombia, and across the wider CELAC region.

Funded by the European Union's Horizon Europe programme, COMUNIDAD supports collaborative, data-driven decision-making and sustainable rural development through innovative downstream services.

### Who Is It For?

The platform supports a wide range of users:

- Farmers & Foresters – to monitor crops, land use, and environmental conditions
- Public Authorities & Planners – to support evidence-based policies and rural development
- Researchers & Innovators – to develop models and test new solutions
- GIS Specialists & Developers – to build advanced spatial applications

### Main Applications

The platform enables users to:

- Monitor agricultural productivity
- Assess environmental risks
- Support climate-resilient land management
- Improve spatial planning
- Develop data-driven services

Explore the COMUNIDAD platform [\*\*HERE\*\*](#).





## FIELD VALIDATION: PROVING IMPACT ON THE GROUND

From satellites to soil – technology tested where it matters most

To ensure the reliability of its digital tools, COMUNIDAD carried out extensive field validation in coffee-growing areas near Manizales, Colombia. Researchers compared satellite-based risk models with real terrain conditions, verifying how accurately the platform identifies landslide-prone zones, environmental threats, and vulnerable agricultural zones under real operating conditions.

These on-site assessments confirmed the value of combining Earth observation with local expertise and field-based analysis. By integrating terrain observations, geological data, and historical records, the platform was further strengthened. With validation completed, COMUNIDAD now offers producers and institutions a proven and trusted system for risk management and territorial monitoring.

Read more [HERE](#).



## FIELD VISITS: CERTIFYING SUSTAINABLE COFFEE PRODUCTION

Verified data. Trusted practices. Global standards.

Through advanced field visits and remote sensing campaigns, COMUNIDAD has demonstrated how satellite data and drones can support sustainable coffee production in Colombia. At the Naranjal Experimental Station and surrounding areas, researchers monitored vegetation health, land cover, and biomass dynamics using Copernicus data and aerial imagery.

The results confirmed that changes in crop cover reflect natural growth cycles, not deforestation. This evidence supports compliance with international sustainability regulations and strengthens access to global markets. With field verification completed, the platform now provides a reliable, science-based foundation for transparent and responsible coffee production.

Read more [HERE](#).



# COMUNIDAD VIDEO HIGHLIGHTS

*From Vision to Impact*

## Project Recap

01

This comprehensive video brings together the full story of COMUNIDAD, from early planning and pilot activities to hackathons, platform development, and international collaboration. It highlights key achievements, shared learning, and the project's contribution to data-driven, sustainable development across Latin America and Europe.

Watch the project recap on [HERE](#).



## Chile Pilot Site Visit

02

Explore the pilot site visit in Chile's Aysén Region, where partners worked closely with local stakeholders to identify key environmental and agricultural challenges. See how digital tools and community knowledge are combined to support informed territorial planning.

Watch the Chile pilot visit recap [HERE](#).

## Colombia Pilot Site Visit

03

Join COMUNIDAD partners in the field as they visit pilot sites in Colombia's coffee-growing zones. This video highlights how satellite data meets terrain realities and how local engagement drives validation, user feedback, and practical solutions for risk management and sustainable land use.

Watch the Colombia pilot visit recap [HERE](#).





## Hackathons Recap – Chile

Discover the energy, ideas, and innovation from our hackathon in Chile’s spectacular landscapes, from fjords to forests. This video showcases how students, innovators, and developers used AI and satellite data to tackle real-world challenges in sustainable development and territorial analysis.

Watch the hackathon recap [HERE](#).

16



## Hackathons Recap – Colombia

Get a glimpse of the dynamic hackathon that empowered participants in Colombia’s coffee regions to build solutions that leverage AI and Copernicus satellite data. See how technology and local insights fuse to support rural development and community-led innovation.

Watch the hackathon recap [HERE](#).





## WHY BRAZIL, WHY NOW?

### A Strategic Turning Point

The COMUNIDAD Final Event in Brazil marked a key transition from testing innovative ideas to scaling practical, real-world solutions. After several years of research, development, and pilot activities, the project reached a stage where its tools and methods are ready for broader application. Brazil offered the ideal context to connect digital innovation with institutional capacity, territorial scale, and community needs, reinforcing COMUNIDAD's ambition to move from experimentation to long-term impact.

### From Results to Lasting Impact

Rather than focusing on formal reporting, the event was designed around alignment, continuity, and deployment. Its goal was to connect research with practice, technology with governance, and innovation with sustainable cooperation. By bringing partners together on the ground, COMUNIDAD strengthened mutual understanding, clarified shared priorities, and created concrete pathways for the long-term use of its digital platforms and collaborative methodologies.

## COMUNIDAD Final Event

**“TURNING SHARED KNOWLEDGE  
INTO LASTING REGIONAL  
IMPACT.”**



# COMUNIDAD FINAL EVENT IN BRAZIL

From Pilot Projects to Real-World Impact | 22-23 Jan. 2026



## Day 1 – Building the Foundations

The first day focused on building shared understanding, trust, and strategic coherence. Through technical exchange, research interaction, and institutional dialogue, partners aligned their approaches to data management, platform integration, and territorial analysis. The emphasis was on creating strong foundations for future collaboration, joint initiatives, and coordinated capacity-building activities across regions.

## Day 2 – Ready for Deployment

The second day focused on practical application, scalability, and governance. Live demonstrations and pilot experiences showed how COMUNIDAD tools support environmental monitoring, agricultural planning, and evidence-based decision-making. Discussions focused on adaptation pathways, long-term management, and next steps, confirming that the project is ready for wider regional adoption and sustained institutional uptake.

More details can be found [HERE](#).



# DATA-DRIVEN SOLUTIONS FOR LOCAL CHALLENGES

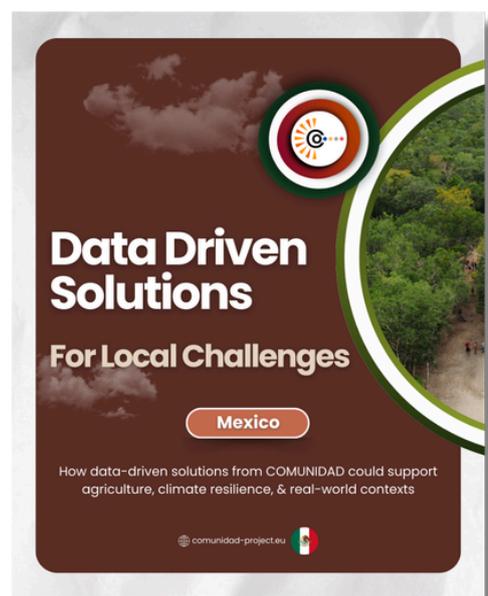
## *How the COMUNIDAD Platform Can Support Climate Resilience and Sustainable Agriculture Across Latin America*

Across Latin America, rural territories are facing increasingly complex and interconnected challenges. While these pressures manifest differently in each country, they share a common need: better information to anticipate risks, support decision-making, and strengthen territorial resilience.



By integrating Copernicus satellite Earth observation, EGNSS precise positioning, and advanced territorial analysis models, the COMUNIDAD Platform transforms complex geospatial data into accessible, actionable insights for local stakeholders. Through this regional focus, we examine how these digital tools can be tailored to diverse territorial contexts across Brazil, Peru, Argentina, Mexico, Nicaragua, and Ecuador.

More details can be found [HERE](#).





Across these six countries, the specific challenges differ in detail, yet a common pattern emerges. Climate variability is intensifying. Environmental pressures are accumulating. Agricultural systems are becoming more vulnerable. What connects these realities is the need for integrated, accessible territorial intelligence.



The COMUNIDAD Platform complements national systems and local expertise by transforming satellite Earth observation and geospatial analysis into practical tools tailored to real territorial challenges. Experiences validated in Chile and Colombia demonstrate that these methodologies are scalable, and adaptable to diverse contexts. By connecting satellite data to local decision-making, COMUNIDAD offers a pathway toward more preventive, informed, and resilient territorial governance across Latin America.

### Explore More

The full series is on our website. Discover how the COMUNIDAD Platform can support data-driven management across Latin America: [HERE](#).





*Connecting Europe and Latin America:  
Transforming Today's Data into  
Tomorrow's Solutions.*



Funded by the European Union under grant agreement No. 101131859. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or EUSPA. Neither the European Union nor the granting authority can be held responsible for them.

