MOSAIC Project Defines Pathways to Local Impact at Annual Consortium Meeting

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Montpellier, France — April 4, 2026

In early April, partners of the MOSAIC** project convened in Montpellier, France, with satellite participation in Rio de Janeiro and Nairobi, for their Annual Consortium Meeting, where a key focus was defining practical pathways to deliver local impact across cross-border communities in three major case study regions. The discussions centered on translating research into actionable tools and knowledge products that support communities facing shared environmental and health challenges.

The three case studies discussed included: the Kenya–Tanzania border in the Amboseli ecosystem, the tri-border region between Colombia, Peru, and Brazil, and the French Guiana–Brazil border. Across these diverse landscapes, consortium members worked to identify priority local communities and population groups, mapping their key challenges, and explored how MOSAIC's open science approach and One Health framework could contribute to locally relevant solutions.

Participants highlighted several common issues emerging across all study sites. These included extreme climate events such as flooding and droughts, land-use change, land degradation, and the emergence of diseases affecting humans, animals and food crops. These shared challenges underscored the importance of integrated, cross-border approaches that link ecosystem health, animal health, and human well-being.

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**Multi-site Application of Open Science in the Creation of Healthy Environments Involving Local Communities.

In the Amboseli case study, the meeting identified both formal and informal community groups as key entry points for impact. These included herders' forums, grazing committees, local women's groups, and One Health community clubs. A range of MOSAIC-generated tools were proposed to support these groups.

The tools include current, high resolution interactive seasonal pasture quality and species maps, surface water maps, seasonal livestock movement maps, disease hotspot maps, livestock–wildlife overlap maps and spatially explicit local weather and climate prediction platforms. These products are planned to be presented through a digital information portal and mobile application translated into local languages, reflecting the increasing use of smartphones among pastoral communities.

In addition, serious games designed for herders were proposed as participatory tools for scenario-building, particularly to support grazing management and drought preparedness, played during local community meetings.

Participants during a working session at the meeting in Montpellier, France.

For the two Amazon study sites, participants similarly identified tailored outputs for local communities. These include land-use and land-cover maps, disease hotspot maps, and interactive dashboards designed to support community decision-making. The meeting also emphasized the importance of communicating findings through accessible formats such as community meetings, short films, and serious games to ensure that knowledge is shared in culturally appropriate and engaging ways.

Artificial Intelligence (AI) conversation agents, supported by human mediators, will facilitate the dissemination of results across the three study sites.

The Montpellier meeting marked an important step in aligning research outputs including those from students and project interns, with community needs. The team narrowed down to specific target groups for co-developing practical tools, to support local populations.

MOSAIC Team Visit to Camargue-Europe's largest river delta

The team later visited the Camargue (Delta du Rhône), Europe's largest river delta, offering a living illustration of the interconnected themes central to the MOSAIC project—water management, biodiversity, culture, and livelihoods. Situated between the Rhône River and the Mediterranean Sea, the Camargue Biosphere Reserve is a dynamic mosaic of lagoons, marshes, salt flats, and seasonal wetlands shaped by centuries of human–nature interaction.

One striking observation was the effectiveness of surface water control across the delta. Carefully managed freshwater and saline systems have created a rich ecological landscape that supports remarkable biodiversity. The region lies along a major migratory route between Europe and Africa, hosting hundreds of bird species alongside semi-feral white horses and the distinctive black bulls that graze the marshlands.

Local livelihoods reflect this delicate interplay. Tourism, agriculture, and salt extraction coexist within the wetland environment.

Flamingos prepare for takeoff in the Camargue wetlands, poised before rising into the Mediterranean sky.

Culture is deeply embedded in the landscape. The Camargue's "world of bulls" and the iconic white horses represent traditions that link people to place, while seasonal festivals and community gatherings reinforce social cohesion. During our visit, we saw vans believed to belong to Gypsy pilgrims converging near Saintes-Maries-de-la-Mer—an important religious and cultural site.

The region attracts visitors drawn by wildlife, open landscapes, and cultural heritage. The Camargue demonstrates that careful zoning, water management, and community participation can support both conservation and economic activity.

The visit concluded with a reflective Good Friday lunch in Saintes-Maries-de-la-Mer, offering a moment to connect insights from Camargue while strengthening project bonds over card and digital games coordinated by young researchers from the MOSAIC project.