Switzerland and Amazonia: Stories of Collaboration

Eight examples of Swiss and Amazonian partners learning, innovating, and building solutions together.

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Preface

The Amazon is often described by its scale: the world's largest tropical rainforest, the largest river basin, millions of species, thousands of rivers, hundreds of peoples and languages. Yet the stories gathered in this report unfold on a different scale. They follow researchers reading the health of a river, producers refining a single crop to make the forest more resilient, and innovators adapting technology to Amazonian realities instead of expecting the forest to adapt to them.

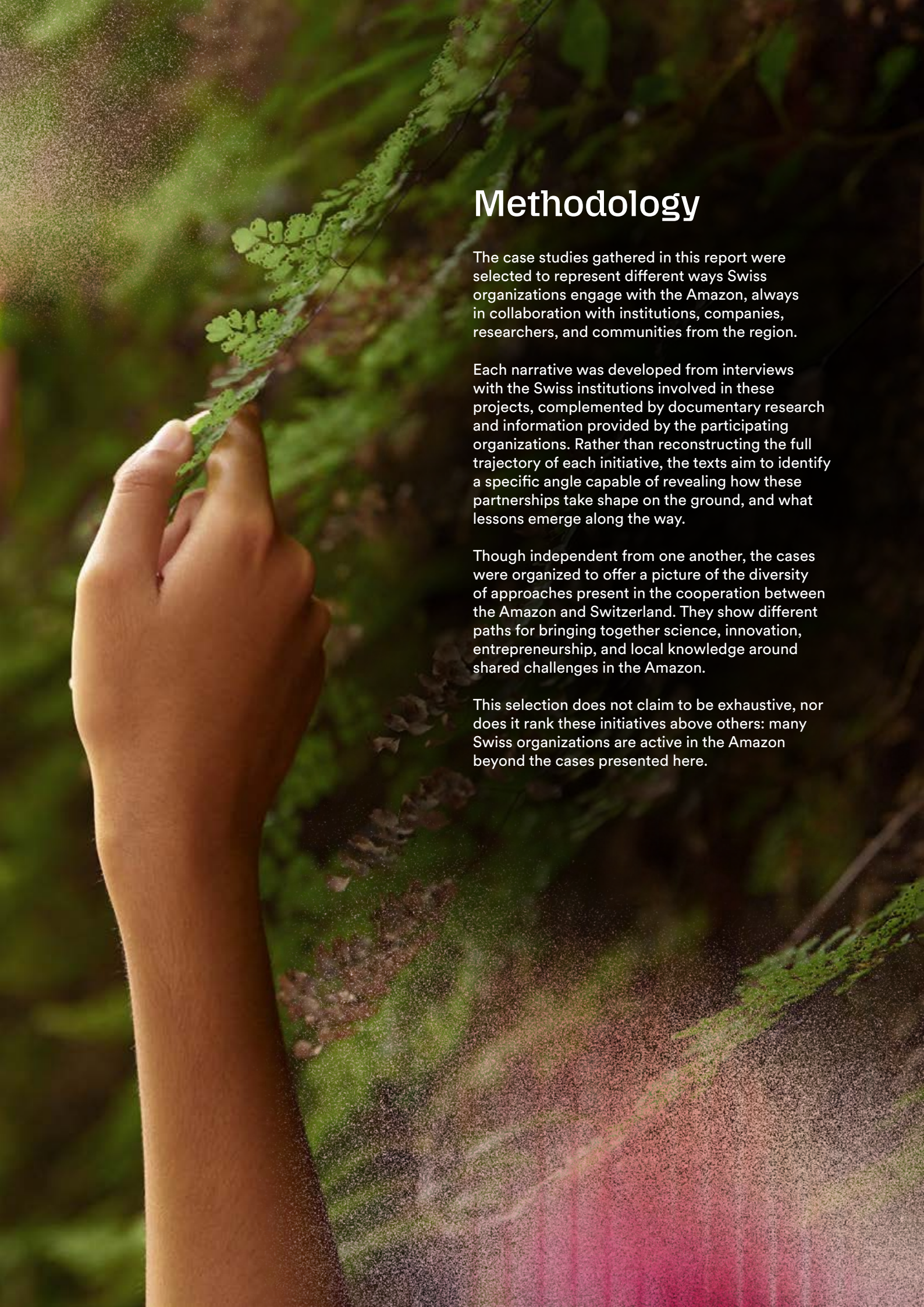
Different stories, all beginning in the same place: by listening to the territory.

Produced with the support of Presence Switzerland, this second edition of Swissnex's Switzerland and Amazonia series follows our first report mapping Swiss organizations active in the Amazon region. Here, we dive into eight examples of collaboration, showing what Swiss and Amazonian partners can concretely achieve together. They span biodiversity research, transparent supply chains, forest governance, and the sustainable use of socio-biodiversity. Different in scope and approach, they share a commitment to learning, adapting, and building solutions rooted in local realities.

As Switzerland's global network for education, research, and innovation, Swissnex connects many of these actors across disciplines, sectors, and borders. Ideas developed in one initiative inspire others, and individual partnerships become part of a stronger cross-border community.

The most successful partnerships teach a simple lesson: protecting the Amazon depends, above all, on the willingness to learn from one another.

Benjamin Bollmann
CEO, Swissnex in Brazil



Methodology

The case studies gathered in this report were selected to represent different ways Swiss organizations engage with the Amazon, always in collaboration with institutions, companies, researchers, and communities from the region.

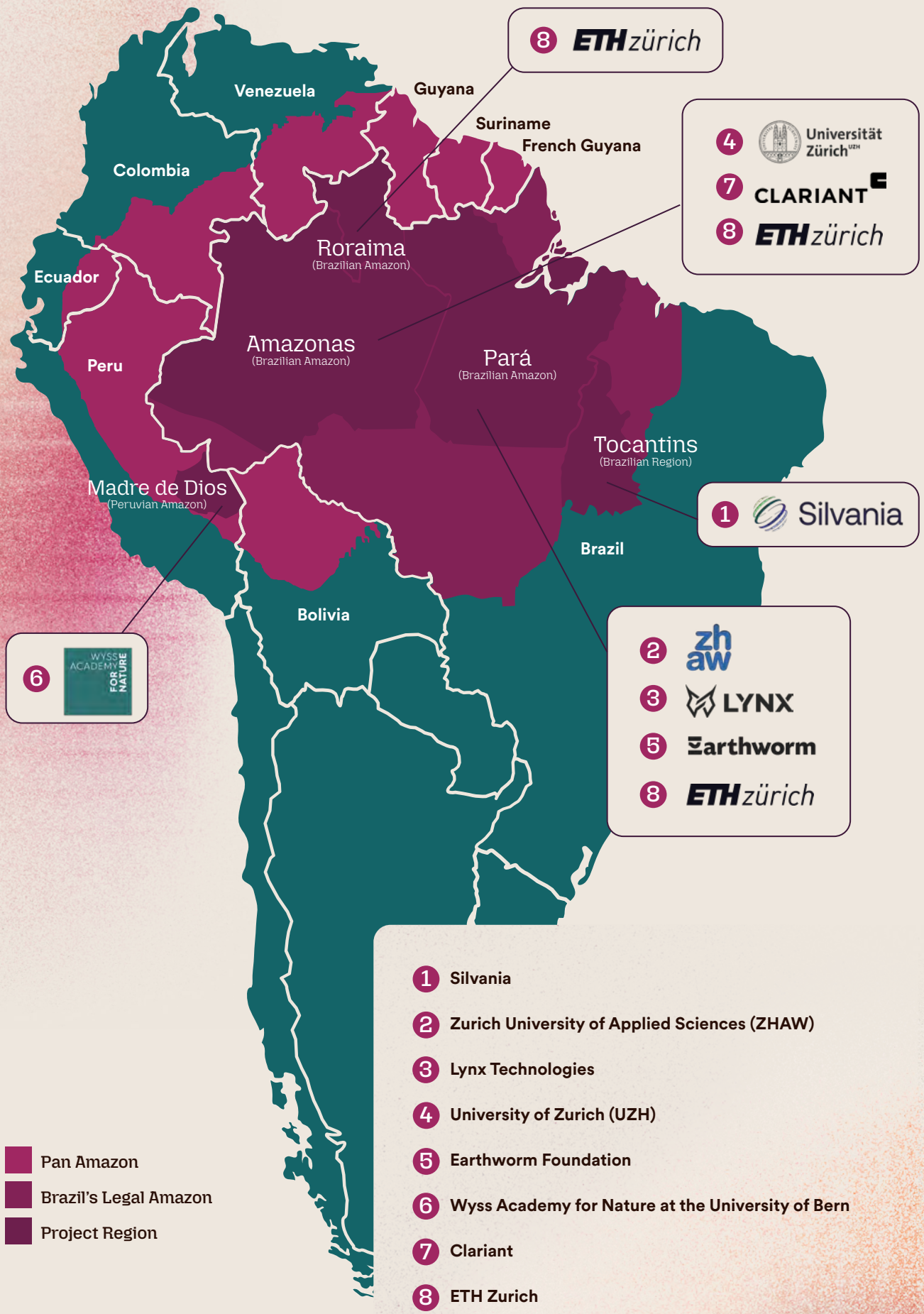
Each narrative was developed from interviews with the Swiss institutions involved in these projects, complemented by documentary research and information provided by the participating organizations. Rather than reconstructing the full trajectory of each initiative, the texts aim to identify a specific angle capable of revealing how these partnerships take shape on the ground, and what lessons emerge along the way.

Though independent from one another, the cases were organized to offer a picture of the diversity of approaches present in the cooperation between the Amazon and Switzerland. They show different paths for bringing together science, innovation, entrepreneurship, and local knowledge around shared challenges in the Amazon.

This selection does not claim to be exhaustive, nor does it rank these initiatives above others: many Swiss organizations are active in the Amazon beyond the cases presented here.

Eight Stories of Collaboration

Swiss organizations featured in this report's case studies.



1. Silvania
2. Zurich University of Applied Sciences (ZHAW)
3. Lynx Technologies
4. University of Zurich (UZH)
5. Earthworm Foundation
6. Wyss Academy for Nature at the University of Bern
7. Clariant
8. ETH Zurich

The Value of a Standing Forest

A Swiss-led model shows how conservation, finance, and local governance can strengthen one another.

Chief Izaac, of the Krahô people, convened his community three times before responding. In the village on the banks of the Sono River in Tocantins, no one was in a rush. The proposal was new: a program promised to transform the conserved forest into income through the sale of carbon credits. Before deciding, it was necessary to understand. "We want the truth," said the Indigenous leader. "If we rush after what's new, we may lose something along the way."

This gathering was not a ritual of persuasion, it illustrates one of the central ideas behind Silvania, established in Geneva in 2023 with an initial commitment of US$500 million from Mercuria, one of the world's largest independent energy and commodities trading houses. Silvania is built on the premise that nature should not be a cost or object of philanthropy, but an asset generating financial returns, preserving forests, reducing emissions, and protecting biodiversity.

In the Amazon, this vision took shape through the Jurisdictional REDD+ (J-REDD+) Program, developed by Silvania with the government of Tocantins. If the state proves reduced deforestation and forest degradation, avoided emissions are independently verified and converted into carbon credits under the international ART-TREES standard. Companies seeking to offset greenhouse gas emissions purchase these credits, creating revenue reinvested via a benefit-sharing mechanism supporting Indigenous peoples, quilombola (escaped enslaved descendants) communities, family farmers, and sustainable production.

Financial engineering accompanied by trust

Before any credit is issued, Silvania and the government of Tocantins set in motion a local consultation process with the beneficiary communities, the Javaé, Xerente, Apinajé, Karajá-Xambioá, Krahô Kanela, and Tuxá peoples, as well as dozens of quilombola communities from Jalapão to Bico do Papagaio. Some leaders highlighted the unprecedented nature of being heard by the state. Chief Randori Hadori Karajá, of the Itáxeo Village, called it an immense pleasure to receive the state team: "For the first time, they have come to our community."

This consultation ceased to be a bureaucratic step and became a central pillar of the project. Indigenous peoples and traditional communities participate in building the governance rules and resource distribution framework, with independent verification.

Scientific rigor and continuity

Winning trust is only the first step. The model must survive government changes, carbon market fluctuations, and increasingly rigorous integrity requirements, while tackling the challenge that measuring biodiversity remains far more complex than measuring carbon.

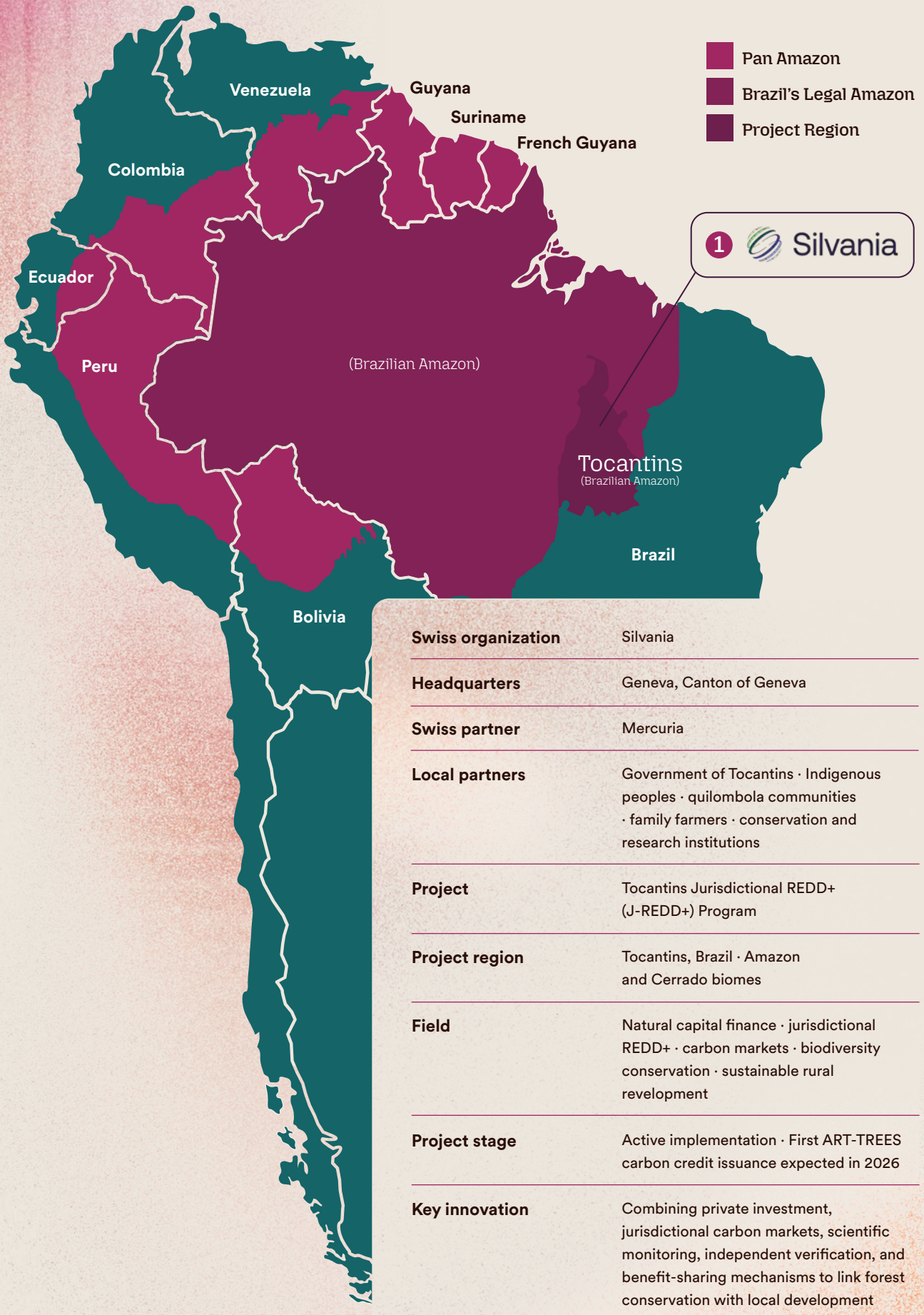
To respond to these uncertainties, Silvania combines international integrity standards with monitoring tools, including satellite imagery, bioacoustic sensors, academic research, and independent evaluations aligned with the Core Carbon Principles of the Integrity Council for the Voluntary Carbon Market (IC-VCM). It also helps develop natural capital metrics with institutions such as the World Economic Forum, Conservation International, The Nature Conservancy, and the Villars Institute.

From local trust to global scale

This combination of community consultation, international standards, and independent monitoring is starting to produce concrete results. The J-REDD+ Program in Tocantins expects its first credit issuance in 2026, part of a portfolio of 14 projects across ten countries, covering more than 29 million hectares.

If the Brazilian experience confirms its potential, the model could be replicated in other regions of the Amazon and, in the future, in Africa and Southeast Asia. Forest protection does not need to rely exclusively on public resources or donations. Conservation, financial return, and social inclusion can walk together.

Ultimately, the greatest innovation is not in the financial engineering, but in the institutional design that sustains the model. The economic value of the forest exists only because it remains standing. And because those who have always lived in it have a place in decisions about its future. For leaders like Chief Amâncio Yurihawa Tuxá, the program can become an ally in the struggle for land: "with a territory, we will be able to take better care of it and preserve our culture."



Swiss organization	Silvania
Headquarters	Geneva, Canton of Geneva
Swiss partner	Mercuria
Local partners	Government of Tocantins · Indigenous peoples · quilombola communities · family farmers · conservation and research institutions
Project	Tocantins Jurisdictional REDD+ (J-REDD+) Program
Project region	Tocantins, Brazil · Amazon and Cerrado biomes
Field	Natural capital finance · jurisdictional REDD+ · carbon markets · biodiversity conservation · sustainable rural revelopment
Project stage	Active implementation · First ART-TREES carbon credit issuance expected in 2026
Key innovation	Combining private investment, jurisdictional carbon markets, scientific monitoring, independent verification, and benefit-sharing mechanisms to link forest conservation with local development
Stakeholders	Indigenous peoples · quilombola communities · family farmers · traditional communities · forest ecosystem

The Seeds We Used to Throw Away

Cupuaçu, a cocoa cousin long overlooked, may hold untapped potential for Amazonian producers.

When people open a cupuaçu fruit, they are usually after its pulp. It becomes juice, sweets, and ice cream. The seeds, more often than not, are left behind. Once the fruit is opened, they are discarded as waste.

It is a curious fate for a species belonging to the same botanical genus as cocoa. From the seeds alone, producers extract a rich butter used in creams, lotions, and hair care products, prized in the cosmetics industry as a natural alternative to shea and cocoa butter, and process them into cupulate, a chocolate-like product. That contrast caught the attention of researchers from the Zurich University of Applied Sciences (ZHAW) in Switzerland and the University of Campinas (Unicamp) in Brazil.

On the Swiss side, ZHAW, known for its applied research in food science and sustainability, had been studying cocoa for years, seeking to understand at the molecular level how its characteristic aromas develop during processing, a phenomenon influenced by factors such as climate, time, handling, and the expertise of those managing the beans. In Brazil, Unicamp had built years of experience with cupuaçu fermentation in the Amazon, testing different post-harvest conditions while working closely with local producers and learning about the challenges they face.

A Research Partnership Grant, part of a Swiss funding instrument that supports bilateral research between Switzerland and Latin American countries, including Brazil, funded the collaboration between the two institutions. The project explored how knowledge developed for cocoa could be applied to cupuaçu, from the molecular characterization of its seeds to improvements in post-harvest processing.

Research meets the field

The collaboration quickly moved beyond the laboratory. The Mixed Agricultural Cooperative of Tomé-Açu (CAMTA), the Brazilian Agricultural Research Corporation (Embrapa), and local producers joined the project, providing raw materials, practical expertise, and access to real production conditions.

The experiments showed that controlled incubation of cupuaçu seeds reproduced many of the molecular changes achieved through traditional fermentation. Compounds associated with aroma development increased, while polyphenols, alkaloids, and acetic acid decreased, softening characteristics that can produce bitterness and astringency. As a result, the seeds became better suited for producing cupulate.

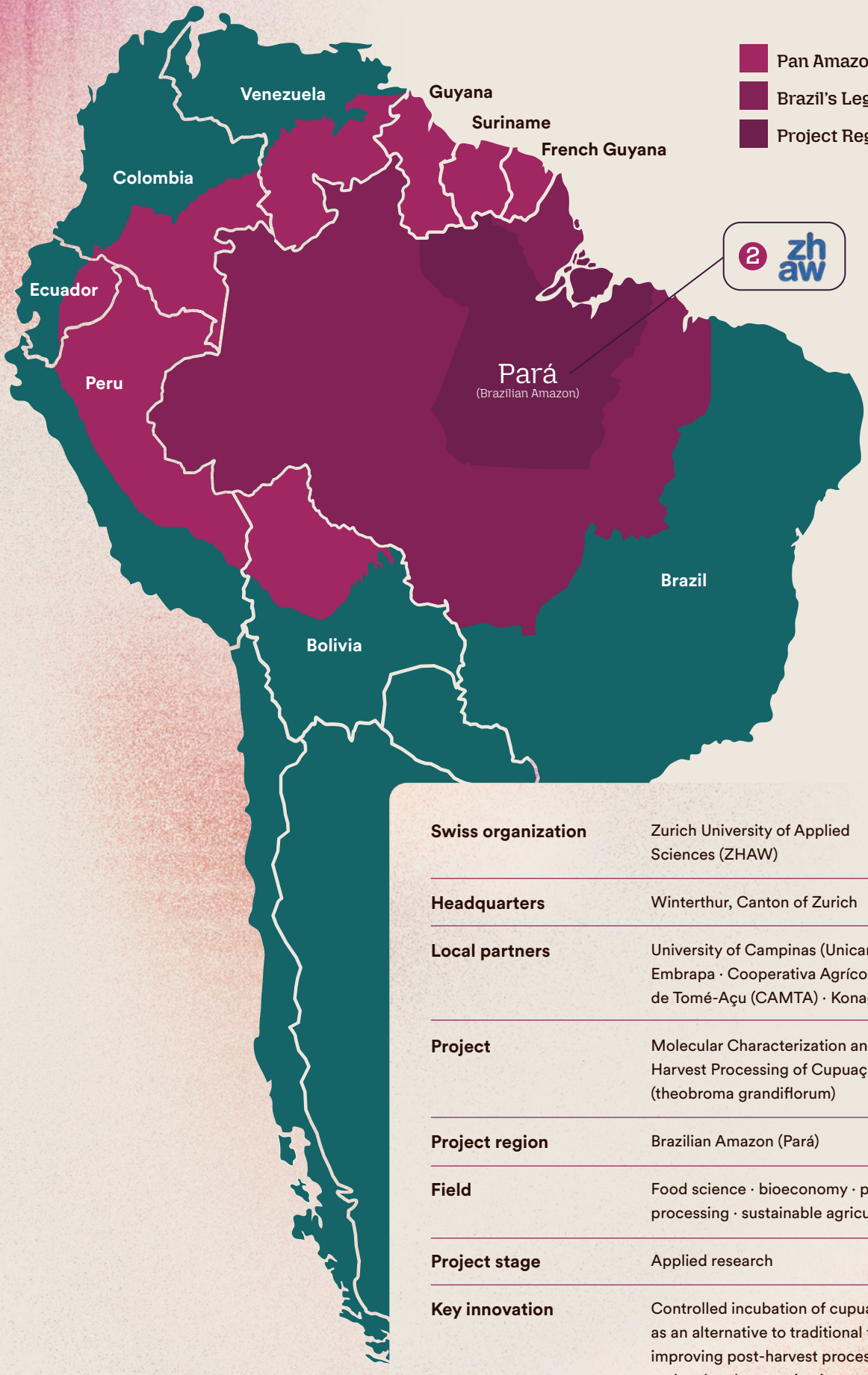
In practice, instead of carrying out a lengthy fermentation process with results that are not always predictable, producers could focus on drying the seeds before they were sent for controlled incubation at cooperatives or processing facilities. The following stages could then be carried out under standardized conditions, reducing variability and improving quality control.

Working in the Amazon also reshaped the researchers' perspective. By observing post-harvest practices firsthand, the ZHAW team encountered methods deeply rooted in local knowledge, yet still reliant on intensive manual labor. The experience reinforced the idea that new techniques should work alongside these traditions, not replace knowledge refined over generations, but help make processing more consistent.

Less can be more

The researchers believe this approach could reshape part of the production chain. Farmers would concentrate on cultivating and drying the seeds, while cooperatives would take over standardized pre-processing. The goal is to reduce post-harvest losses, improve quality control, and facilitate access to more demanding markets.

In the end, the project's most important finding was not only about cupuaçu, it was about the process itself. By bringing together molecular research, agronomic knowledge, and the experience of people who work in the Amazon every day, the collaboration showed that innovation does not always mean adding new steps. Sometimes, it means discovering which ones are no longer necessary.



Swiss organization	Zurich University of Applied Sciences (ZHAW)
Headquarters	Winterthur, Canton of Zurich
Local partners	University of Campinas (Unicamp) · Embrapa · Cooperativa Agrícola Mista de Tomé-Açu (CAMTA) · Konagano Farm
Project	Molecular Characterization and Post-Harvest Processing of Cupuaçu (theobroma grandiflorum)
Project region	Brazilian Amazon (Pará)
Field	Food science · bioeconomy · post-harvest processing · sustainable agriculture
Project stage	Applied research
Key innovation	Controlled incubation of cupuaçu seeds as an alternative to traditional fermentation, improving post-harvest processing through molecular characterization.
Stakeholders	Cupuaçu producers, cooperatives, researchers, and the Amazon bioeconomy.

When the Origin Becomes Traceable

From the Amazon to the consumer, a Swiss solution connects origin, transparency, and access to increasingly demanding markets.

On the rain-soaked streets of Belém during COP30, more than 1,500 volunteers helped bring a new approach to tracing Amazonian bioeconomy products into public view. The sneakers they wore looked ordinary, but they carried a story that often disappears along the supply chain. Through a digital identity assigned to each pair, users could access information about the materials used, the origin of the natural rubber, açaí-derived components, and every stage of the manufacturing process.

In reality, that story begins long before the conference. Products from the Amazon's socio-biodiversity carry unique characteristics, yet much of their origin becomes invisible once they enter long and complex supply chains. Their connection to the territory gradually fades as goods move from one stage to the next until they finally reach the consumer.

This lack of visibility has also become a barrier to entering more demanding markets. As international buyers increasingly require evidence of material origins, production processes, and social and environmental impacts, it is no longer enough for Amazonian products to be sustainable. They must also be able to prove it.

To bridge this gap between origin and recognition, Lynx Technologies developed a traceability solution tailored to the Amazon. By connecting information throughout the supply chain, the company transforms scattered data into reliable, verifiable, and accessible records.

Innovation meets local knowledge

This technology was brought into the Amazon through nexBio Amazônia, a Swissnex program that connected Swiss innovation with local organizations deeply familiar with the region's realities.

Among them was Seringô, which transforms socio-biodiversity raw materials, including natural rubber and other forest-based inputs, into higher-value products. Seringô contributed its knowledge of the materials, the extractivist communities, and the dynamics of Amazonian forest value chains, while Lynx developed the digital infrastructure needed to organize this information and connect it to the final product.

The collaboration also involved SICPA, the Swiss multinational specializing in product authentication and security. Lynx's platform builds and manages the Digital Product Passport, a record that gathers the product's full journey, while SICPA's secure label ties that record to the physical item and confirms its authenticity. A simple scan with a smartphone gives consumers access to it all.

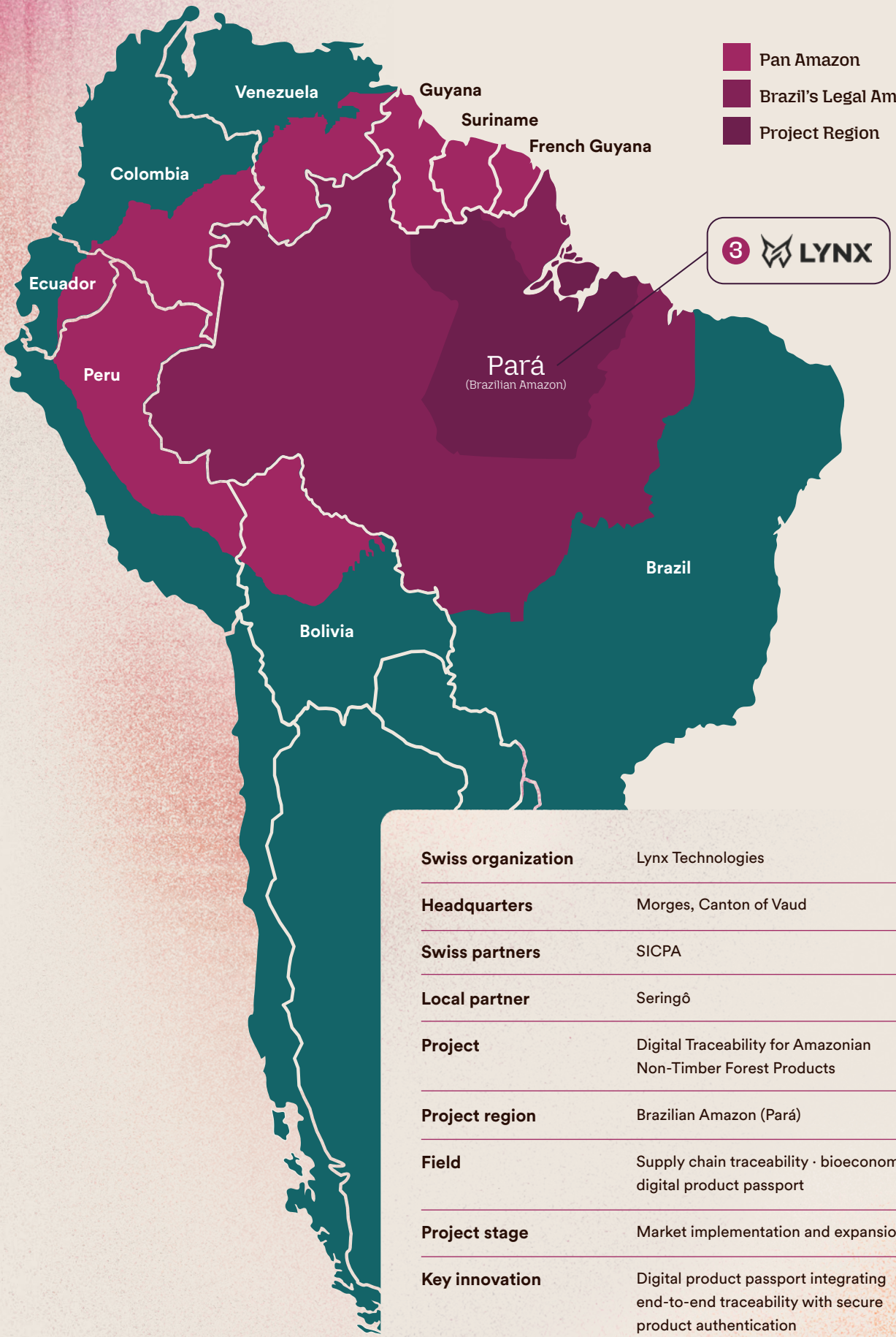
This technology, though, had to bend to the realities of the forest. A system built for a highly automated factory has no place in supply chains shaped by uneven connectivity, infrastructure, and digital literacy. The answer was a simpler, modular approach, one that captures what matters most without piling new demands onto producers and local organizations.

Partners such as Seringô played a crucial role in adapting the technology to local conditions. They helped define how materials actually move through the supply chain, which information could realistically and reliably be recorded, and which tools made sense for people working on the ground. Without that knowledge, the system might have been technically sound but impractical in real-world conditions.

From invisibility to traceability

At COP30, the solution reached a visible milestone. The 1,500 pairs of sneakers demonstrated that Amazonian products with digital traceability can reach the market at scale. For Seringô, the technology provides a way to showcase the materials and practices behind its products. For buyers and consumers, it offers a clearer understanding of each product's journey. The same modular platform can also be adapted to a wide range of other non-timber forest product value chains.

The project shows that innovation in the Amazon depends on building solutions that embrace the realities of the territory and the knowledge of the people who live and work there. By connecting Swiss technology with local expertise, Lynx transforms a story that once disappeared along the supply chain into one that the market can finally see.



Swiss organization	Lynx Technologies
Headquarters	Morges, Canton of Vaud
Swiss partners	SICPA
Local partner	Seringô
Project	Digital Traceability for Amazonian Non-Timber Forest Products
Project region	Brazilian Amazon (Pará)
Field	Supply chain traceability · bioeconomy · digital product passport
Project stage	Market implementation and expansion
Key innovation	Digital product passport integrating end-to-end traceability with secure product authentication
Stakeholders	Amazonian producers, extractivists, bioeconomy businesses and international buyers

The Trees That Make Rain

In Zurich and the Amazon, scientists trace how flying rivers, biodiversity, and human history sustain the rainforest.

Some of the Brazil nut trees that tower over the Amazon today were planted generations ago by people who had no way of knowing they were building a kind of plumbing, one capable of carrying water from the ground to the clouds. Over time, the species became one of the Amazon's hyperdominant plants, playing an outsized role in both the forest's biodiversity and the return of moisture to the atmosphere. Long before science explained that process, local and Indigenous communities already understood their role. They simply called them the trees that make rain.

The rivers of the Amazon don't run only on the ground. They also run through the sky, carried by vapor the forest itself releases, what scientists call flying rivers. The rain that falls on a field hundreds of kilometers away may have begun its journey in the canopy of these trees, days earlier.

To follow that invisible route, Professor Maria J. Santos' Earth System Science research group at the University of Zurich (UZH) brought together ecologists, climate and Earth system scientists, archaeologists, historians, and social scientists to treat the Amazon as a single system. They built models that trace water vapor from the leaf to the rainfall, enough to show that the forest doesn't just regulate climate. It also carries, in how it functions, thousands of years of human presence.

The Brazil nut tree is one example of that connection. Planted by Amazonian peoples over generations, it is now among the species that sustain the moisture recycling feeding the flying rivers. But it doesn't work alone, and understanding what each species contributes is one of UZH's research fronts, alongside Brazil's National Institute for Amazonian Research (INPA), headquartered in Manaus, and the University of Oxford.

When science catches up with the rain

The models revealed that deforestation's effects don't stay only where the trees fall. Tracking moisture through the atmosphere, researchers showed that forest loss reduces rainfall over farmland hundreds of kilometers away. Clearing trees to make room for crops can, paradoxically, take from those same crops the water they depend on.

Even after deforestation stops, the impact doesn't disappear. Changes in rainfall patterns can last up to six years, a lag still rarely built into environmental models or public policy. Understanding that delay, for UZH, is what makes it possible to calculate the real cost of forest loss and guide sharper conservation decisions.

There is another layer to these findings. Conserving trees isn't enough. Different species carry out different roles in the movement of water and respond differently to droughts and other extremes. Combining remote sensing with fieldwork, UZH is investigating how that diversity sustains the flying rivers and makes the forest better able to withstand a changing climate. The Federal University of Minas Gerais (UFMG) recently joined the network, widening a line of inquiry no single group could work out alone.

That collaboration also brings the research closer to the people who live with the forest. Through field campaigns and school programs, scientists talk with communities whose understanding of Amazonian dynamics came long before the explanations science now confirms. It is in this kind of connection, between Swiss and Brazilian institutions facing a shared challenge, that Swissnex does its work.

Questions born in the Amazon already cross other continents. UZH is applying the same model to tropical forests such as Borneo, and brings its findings to the World Biodiversity Forum, alongside policymakers, Indigenous representatives and civil society organizations. The water rising from the forest may never reach Europe. The knowledge built to trace its path does.

Swiss organization	University of Zurich (UZH)
Headquarters	Zurich, Canton of Zurich
Local partners	Instituto Nacional de Pesquisas da Amazônia (INPA) · University of Oxford · Federal University of Minas Gerais (UFMG)
Project	Research on Amazonian Flying Rivers and Forest-Climate Interactions
Project region	Brazilian Amazon
Field	Climate science · biodiversity · earth system science · forest ecology · archaeology
Project stage	Fundamental and applied research
Key innovation	Integrating climate science, ecology, archaeology, and remote sensing to understand how biodiversity and long-term human influence shape Amazonian flying rivers and regional rainfall.
Stakeholders	Researchers, policymakers, local communities, Indigenous Peoples, and organizations working on biodiversity conservation and climate resilience.

When the Land Thrives Again

Bringing farmers, companies, and communities together to regenerate forests through sustainable supply chains.

In the past, a drought or a drop in cocoa prices was enough to compromise the income of an entire family. But Jania Maria Simão, a farmer from Tomé-Açu, in Pará, learned the best time to prune her cocoa trees through the Seeds of Change Project. She also learned how to dose fertilizer and recognize the exact point at which the fruit should be harvested for processing. These small changes transformed her farm's routine: production increased, the work became lighter, and knowledge began to flow among neighbors and family.

What changed on Jania's property did not happen by chance. It is part of the Earthworm Foundation's Empowering Communities for Nature-Positive and Conflict-Free Supply Chains project. Founded in Switzerland in 1999, with offices across the Americas, Asia, Africa, and Europe, Earthworm bridges corporate sustainability commitments with the realities of the territories where supply chains begin. As a member-based nonprofit, it relies on corporate partners to fund and co-design its programs alongside cooperatives, public institutions, and research organizations on the ground. An approach it describes as going "beyond compliance."

In the Amazon, the project brings together Swiss companies such as Nestlé and Givaudan, alongside Cargill, Lavazza, and Natura, around a shared goal of producing without deforestation or turning the forest into a source of conflict. Nestlé, for instance, sources cocoa directly from this landscape for its chocolate products. In Pará and Rondônia, the company works with more than 1,400 farming families through the Nestlé Cocoa Plan, and Pará alone accounts for roughly 40% of its cocoa purchases in Brazil.

Producing with the forest

In Tomé-Açu, this takes shape through Agroforestry Systems that combine cocoa, oil palm, fruit trees, native species, and food crops in the same area. This diversity improves the soil, reduces dependence on a single product, and distributes income throughout the year, making families less vulnerable to climate and market fluctuations.

The process begins by listening to farmers, cooperatives, and communities to understand the needs of each territory. They define priorities, choose crop combinations, and build with technical support their Holistic Property Plans. Associations develop business plans, women take on leadership roles, and production responds to local conditions rather than imported models.

Technology enters the picture later, through the Starling platform, developed by Earthworm with Airbus, which uses satellite imagery and artificial intelligence to identify forest changes and flag areas at risk. However, maps do not replace the people living in the territories. Every alert is discussed with producers and communities and confirmed in the field before guiding any decision.

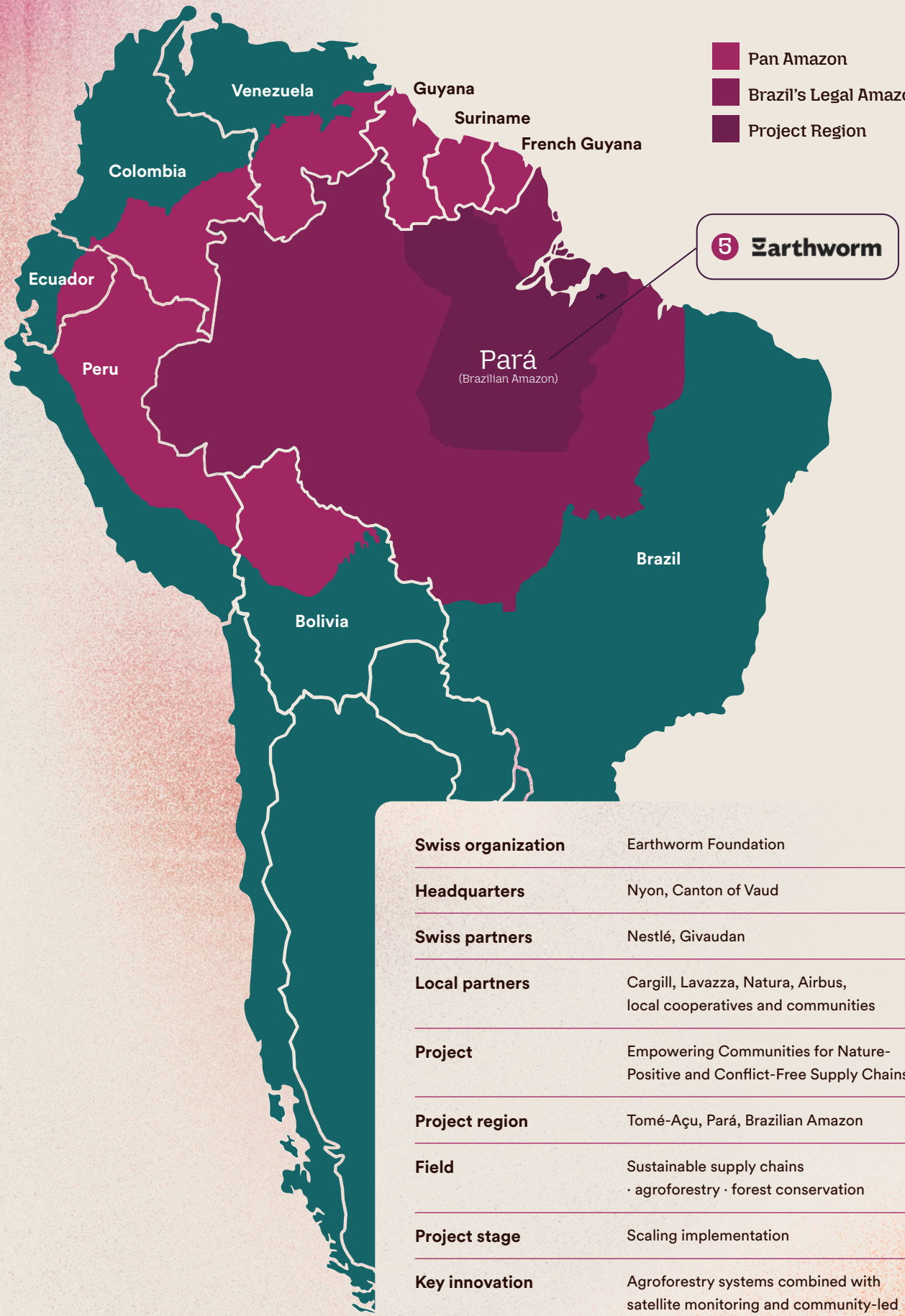
The territory as a starting point

More than a thousand smallholder farmers have already participated in the initiatives in Tomé-Açu. About 300 women have completed leadership training programs, while 173,200 hectares linked to the palm oil supply chain have adopted more sustainable management practices. The impact has also reached the producers' pockets: they have accessed more than R$ 1 million through public credit and incentive policies.

Between 2023 and 2025, 31 training sessions were held, 152 Rural Environmental Registries were regularized, 252 Family Farming Registries were issued, and ten associations and cooperatives structured their business plans. But making all this happen is no simple task.

Coordinating multinational companies, governments, researchers, and producers around a shared agenda means reconciling different interests, timelines, and expectations. This is where Earthworm comes in, acting as a trusted convener and helping align stakeholders around the shared goals of protecting the forest, respecting the rights of those involved, and strengthening local economies.

The Tomé-Açu experience is not a one-size-fits-all model for the Amazon. Each territory must build its own solutions. In this corner of Pará, the transformation began with a single pruning done at the right moment. But the results — healthier soil, more stable income, and stronger organizations — show that to regenerate forests the universal starting point is listening to those who have always lived from the land.



Swiss organization	Earthworm Foundation
Headquarters	Nyon, Canton of Vaud
Swiss partners	Nestlé, Givaudan
Local partners	Cargill, Lavazza, Natura, Airbus, local cooperatives and communities
Project	Empowering Communities for Nature-Positive and Conflict-Free Supply Chains
Project region	Tomé-Açu, Pará, Brazilian Amazon
Field	Sustainable supply chains · agroforestry · forest conservation
Project stage	Scaling implementation
Key innovation	Agroforestry systems combined with satellite monitoring and community-led governance
Stakeholders	Smallholder farmers, cooperatives and local communities

What the Territory Already Knows

An Amazon nut dryer shows how innovation takes shape when global knowledge meets local experience.

In Madre de Dios, in the southern Peruvian Amazon, the Amazon nut comes out of the forest heavy with moisture. It needs to dry before entering the oven, and for decades this step depended on the hands and patience of the collectors: spread it out, turn it, wait, hope the weather cooperates. A slow process for a chain that sustains part of the region's economy, where delay increases the risk of spoilage and compromises the quality of the product.

At first glance, the equipment looks straightforward: a metal structure with controlled ventilation. Yet, its true value lies in how it was adapted to the territory. Originally based on a German model used for drying walnuts, the design was completely transformed to meet the realities of the Amazonian climate. This process was driven by a collaborative effort between CITEproductivo, a Peruvian public center for innovation and technology transfer that brought technical innovation to the project, and RONAP, that represents local collectors whose deep understanding of the forest shapes sustainable and fair trade in the region.

The organization behind this whole process was the Wyss Academy for Nature, affiliated with the University of Bern. Tambopata, in Peru's Amazonian region of Madre de Dios, has become the focus of its territorial work in South America. But it isn't the machine itself that draws attention, it's the method that produced it.

The field comes before the answer

When the Wyss Academy Hub South America began operating directly in Tambopata in 2023, the region was no unknown territory. For nearly twenty years, organizations, researchers and international institutions had been circulating through it. There was accumulated knowledge, ongoing projects, people who knew the land inside and out. The team's first task wasn't to propose anything. It was to listen and map what was already underway, and only then decide where it made sense to act.

In the Peruvian Amazon, this method unfolds across different fronts. Some aim to create economic value while keeping the forest standing. Others restore degraded areas through productive models, support governance over land use, or bring investment closer to the bioeconomy. None of them start from a ready-made answer. The territory changes, and the solutions have to change with it.

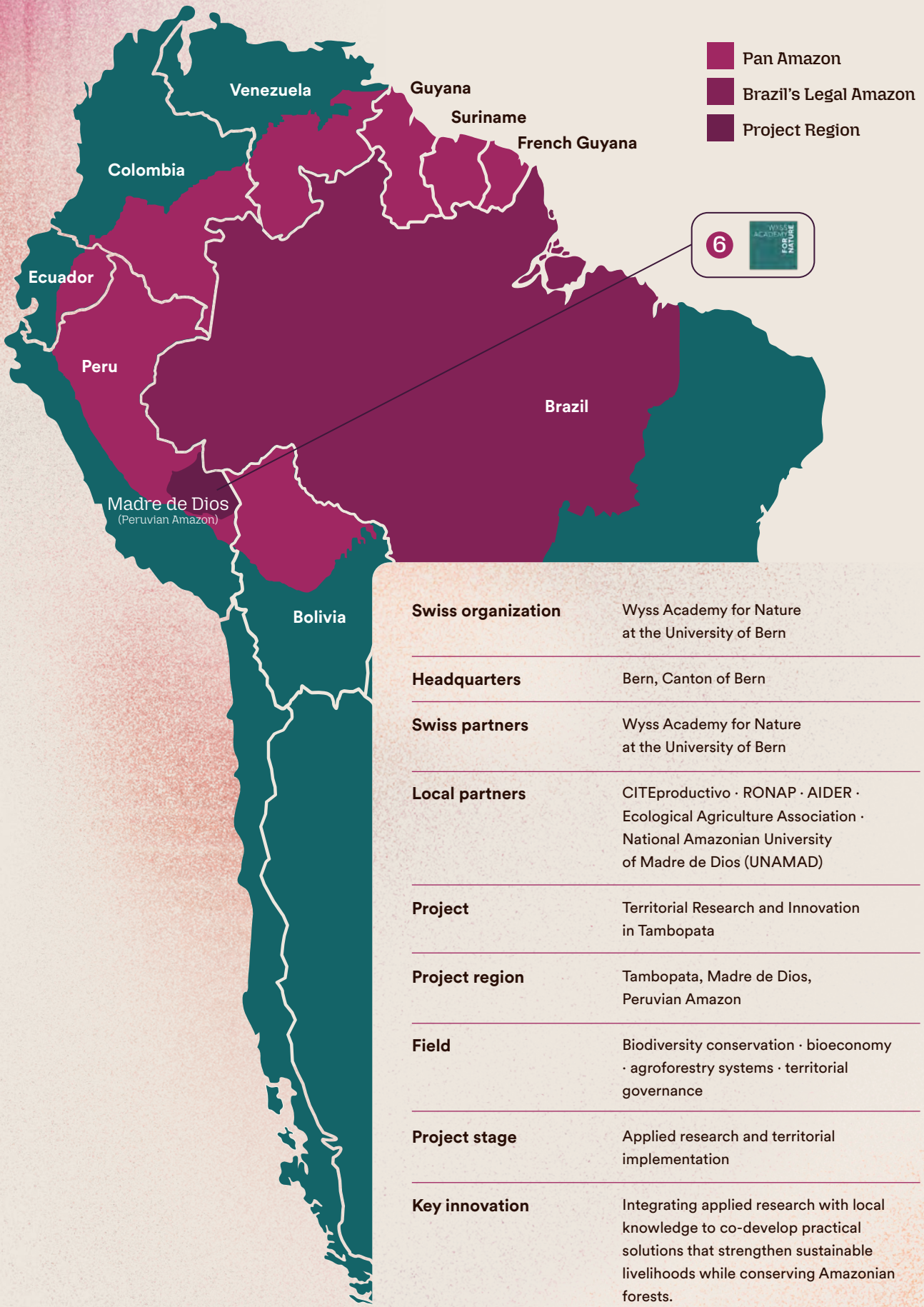
The same logic appears in the agroforestry systems incubator that the Wyss Academy runs with AIDER, a local producers' association, the Ecological Agriculture Association, the public university UNAMAD and CITEproductivo itself. The starting point is cacao plots more than ten years old, nearly all planted as monocultures, located in the buffer zone of the Tambopata National Reserve. These areas have begun receiving other commercially valuable species that, besides generating income, also serve as habitat for the surrounding biodiversity.

Shared goals, distinct roles

Across these projects, each partner takes on a different role. Universities, public agencies, associations and producers contribute where they have the most experience. When roles get blurred, the effort dilutes instead of paying off. But knowing who does what is only part of the equation. It's also necessary to know what the work already done is teaching.

And that's where research comes back into the picture. The teams don't wait to close a full measurement cycle before acting again. They read signals along the way, a planting that grows differently than expected, a practice that producers adopt faster than another, and adjust the next step from there. The field isn't where results arrive finished. It's where the next questions are born.

The nut dryer sums up this method. The technology came from elsewhere, but it wasn't simply dropped in. It had to be understood, adapted, remade from the conditions of Madre de Dios before finally becoming a useful tool for those who live off the forest.



Swiss organization	Wyss Academy for Nature at the University of Bern
Headquarters	Bern, Canton of Bern
Swiss partners	Wyss Academy for Nature at the University of Bern
Local partners	CITEproductivo · RONAP · AIDER · Ecological Agriculture Association · National Amazonian University of Madre de Dios (UNAMAD)
Project	Territorial Research and Innovation in Tambopata
Project region	Tambopata, Madre de Dios, Peruvian Amazon
Field	Biodiversity conservation · bioeconomy · agroforestry systems · territorial governance
Project stage	Applied research and territorial implementation
Key innovation	Integrating applied research with local knowledge to co-develop practical solutions that strengthen sustainable livelihoods while conserving Amazonian forests.
Stakeholders	Amazon nut collectors, cacao producers, local institutions, researchers, and communities in Madre de Dios.

From the Forest to the Laboratory

Brazil and Switzerland combine local knowledge, research, and business to develop ingredients from Amazonian biodiversity.

When açaí ripens in Pará, the harvest mobilizes entire families. The fruits leave the palm trees for processing areas and, from there, follow a chain that can end thousands of kilometers away, often in foreign cosmetic laboratories.

Açaí is just one of the raw materials that travel this path. Andiroba, copaíba, pracaxi, and other species of Brazilian biodiversity can also be transformed into items for the personal care industry. However, between collection and the final product, it is necessary to develop ways to treat raw materials and find applications that make sense for the market.

It was along this journey that Beraca's Brazilian experience met the international structure of the Swiss company Clariant. Beraca develops natural ingredients from biodiversity and works with supplier communities in different regions. Clariant, specialized in chemical products, operates globally in creating technologies for industries, including cosmetics.

The partnership began in 2015 when Clariant acquired part of Beraca, eventually taking full ownership in 2021. This integration combined knowledge developed in different environments: on one hand, local knowledge about species, territories, and communities; on the other, investment in research and access to international markets.

This encounter, however, did not begin with the acquisition. Since 2000, Beraca's Sociobiodiversity Enhancement Program has organized relationships with supplier communities. The work includes training in collection and production, organizational development, traceability, and management practices. Communities participate in decisions regarding resource management and the construction of supply chains. According to the company, more than 14,000 families have been involved in the project over the last five years, across 1.83 million hectares dedicated to organic production.

The alchemy between knowledge and the test tube

Starting in the communities, this journey continues beyond Amazonian borders. After the harvest, it is essential to understand the characteristics of the raw materials and how they can be utilized in the industry. A plant-derived oil or extract must present known properties, consistent quality, and applications that can be reproduced in a formulation.

This is the stage where Lucas Meyer Cosmetics operates. Specializing in the development of products for personal care and part of Clariant since 2024, the company works with active and functional ingredients, many of natural origin, and technologies used in cosmetic formulation.

In this process, unique Brazilian knowledge about species and the conditions in which they are obtained meets Swiss industrial expertise. In turn, this expertise contributes to investigating ingredient properties, developing applications, and bringing them to markets with rigorous technical requirements.

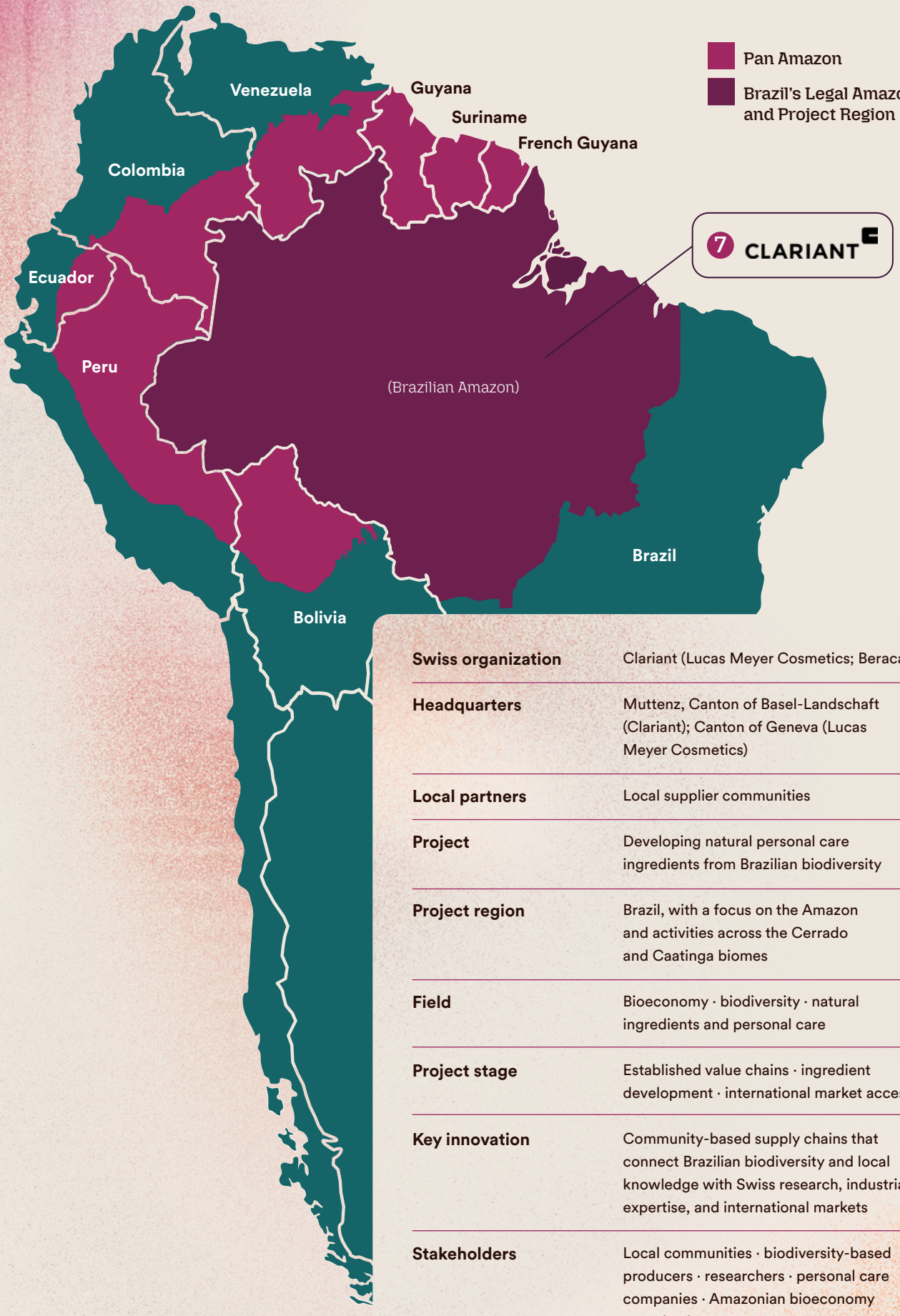
This collaboration is part of a broader rapprochement between Brazil and Switzerland regarding the Amazonian bioeconomy. Swissnex participates in this movement by connecting companies, researchers, and organizations from both countries, helping create new opportunities for scientific and innovation partnerships in the region.

Lessons from a partnership without borders

For Swiss companies, working with Amazonian ingredients requires understanding that innovation begins long before a sample reaches the laboratory. Seasonal cycles, local harvesting practices, and community-based production all influence the quality and consistency of natural ingredients.

For Brazilian partners, collaboration with Swiss companies expands opportunities to develop higher-value ingredients, strengthen research capabilities, and reach international markets with products supported by scientific research.

In the next açaí cycle, the palm trees will produce again along the riverbanks. Someone will climb one of these trunks again, gather the clusters, and the fruits will follow another journey that may end thousands of kilometers away. By the time they reach their destination, they will carry not only the properties of the forest, but also the work, knowledge, and relationships that shaped their journey.



Swiss organization	Clariant (Lucas Meyer Cosmetics; Beraca)
Headquarters	Muttenz, Canton of Basel-Landschaft (Clariant); Canton of Geneva (Lucas Meyer Cosmetics)
Local partners	Local supplier communities
Project	Developing natural personal care ingredients from Brazilian biodiversity
Project region	Brazil, with a focus on the Amazon and activities across the Cerrado and Caatinga biomes
Field	Bioeconomy · biodiversity · natural ingredients and personal care
Project stage	Established value chains · ingredient development · international market access
Key innovation	Community-based supply chains that connect Brazilian biodiversity and local knowledge with Swiss research, industrial expertise, and international markets
Stakeholders	Local communities · biodiversity-based producers · researchers · personal care companies · Amazonian bioeconomy organizations

The River That Speaks

In the Amazon, Swiss and Brazilian science combine environmental DNA and traditional knowledge to understand how biodiversity is changing.

A single glass of water can hold the genetic traces of an entire ecosystem. Collected from an Amazonian stream and filtered in a laboratory, it contains fragments of DNA left behind by fish, plants, insects and mammals that have passed through that stretch of river. This material, known as environmental DNA, or eDNA, allows researchers to monitor biodiversity without capturing a single animal and detect changes that might otherwise remain unnoticed.

This technology lies at the heart of WildinSync, a global biodiversity-monitoring initiative created by the Ecosystem and Landscape Evolution Group (ELE) at ETH Zurich, one of the world's leading universities in science and technology, ranked 8th globally. As part of a monitoring network spanning more than 30 countries, the project uses environmental DNA to track changes in ecosystems.

The Amazon work is carried out in collaboration with BiotechQuilombo, a research initiative led by the Federal University of Amazonas within Amazônia +10, a Brazilian program that funds multidisciplinary scientific expeditions across the region, with support from international partners including the Swiss National Science Foundation. Swiss and Brazilian researchers work with quilombola (escaped enslaved descendants) communities in Pará, Amazonas and Roraima, whose traditional knowledge of local species and ecosystems guides the research, combining eDNA, satellite imagery and artificial intelligence.

Funding comes from a coalition of Brazilian and international research agencies, among them Brazil's National Council for Scientific and Technological Development (CNPq), the Amazonas, Pará, Roraima and São Paulo state research foundations (Fapeam, Fapespa, Faperr and Fapesp), alongside the Swiss National Science Foundation (SNSF) and UK Research and Innovation (UKRI).

Before deciding where to collect samples or which questions to investigate, a more fundamental question emerged: who should control the information produced from these territories? For the research teams, there is an ethical risk in the appropriation of data, similar to what happens when technology companies use protected content without authorization. For this reason, they decided that, before feeding databases and academic publications, information should first return to communities in formats that support decisions about their territories and demonstrate the value of the ecosystems they conserve. These data can then also contribute to long-term scientific analyses.

Science begins with listening

Funding from the Swiss National Science Foundation allowed the first year of WildinSync Amazonia to focus on building relationships. The teams visited Quilombola communities, discussed local priorities and organized a workshop where researchers and community members exchanged information and knowledge before defining sampling protocols.

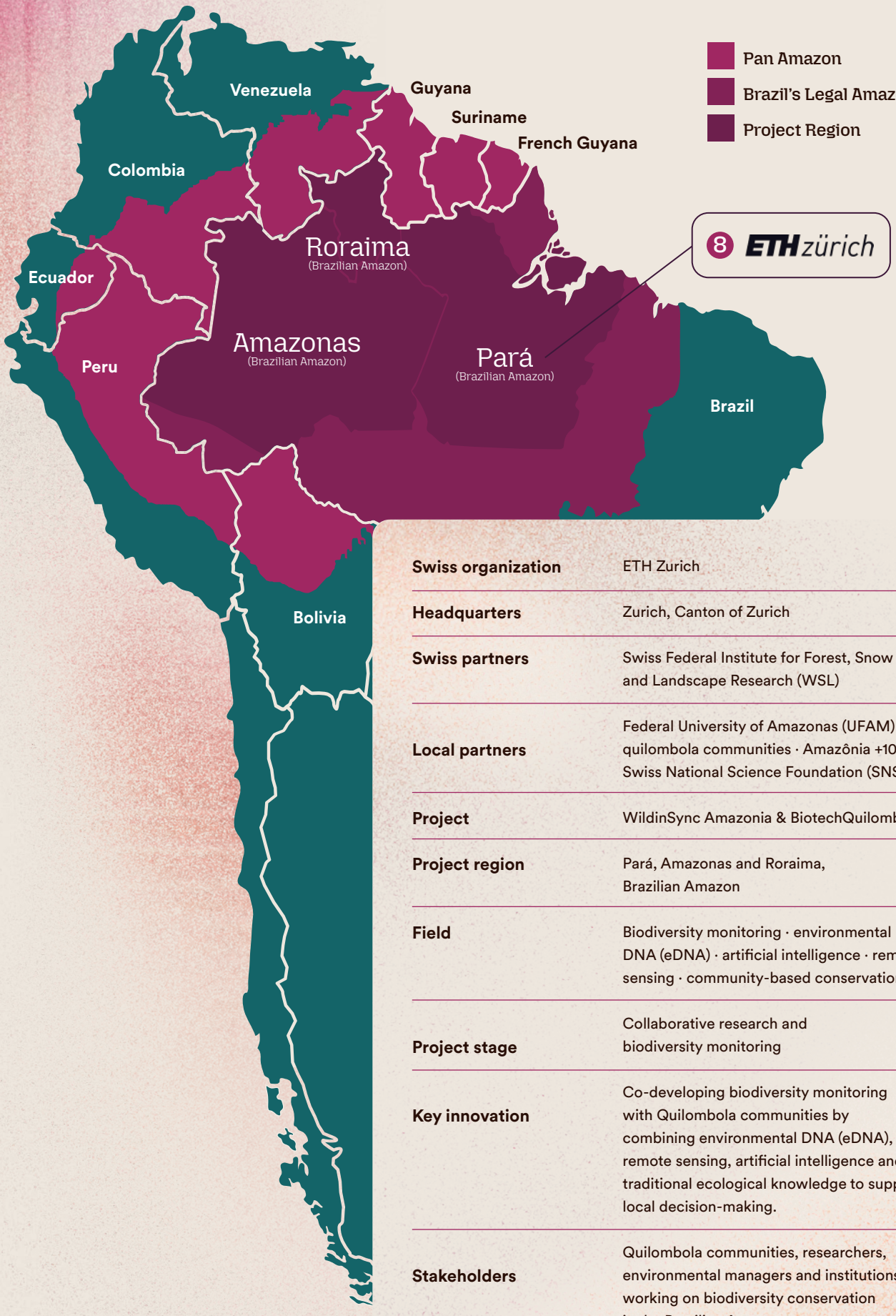
For the ETH Zurich team, this time was part of the scientific process itself. The challenge was not simply to bring molecular genetics and traditional knowledge together, but to create the conditions for different ways of understanding nature to generate knowledge collectively.

The conversations with communities helped define the main research topics, including the effects of wildfire smoke, climate change and pollution on fisheries and territories. Sampling locations were selected based on these priorities and guided by traditional knowledge of rivers, forests and natural cycles.

Knowledge that remains

Previous experiences of ETH Zurich with Indigenous communities had already demonstrated the potential of this approach. eDNA analyses confirmed the positive effects of local initiatives, such as fishing reserves and spring protection, on species richness and water availability. Over the next decade, continuous monitoring could reveal ecosystem changes before they become evident, from the arrival of invasive species to the effects of extreme droughts associated with El Niño.

It is easier to destroy what has never been documented. In WildinSync Amazonia, documenting species and territories helps make their value visible. Ensuring that this information remains with the communities who live in the forest allows them to better understand environmental changes, demonstrate the importance of the ecosystems they protect and have greater agency in shaping their own future.



Swiss organization	ETH Zurich
Headquarters	Zurich, Canton of Zurich
Swiss partners	Swiss Federal Institute for Forest, Snow and Landscape Research (WSL)
Local partners	Federal University of Amazonas (UFAM) · quilombola communities · Amazônia +10 · Swiss National Science Foundation (SNSF)
Project	WildinSync Amazonia & BiotechQuilombo
Project region	Pará, Amazonas and Roraima, Brazilian Amazon
Field	Biodiversity monitoring · environmental DNA (eDNA) · artificial intelligence · remote sensing · community-based conservation
Project stage	Collaborative research and biodiversity monitoring
Key innovation	Co-developing biodiversity monitoring with Quilombola communities by combining environmental DNA (eDNA), remote sensing, artificial intelligence and traditional ecological knowledge to support local decision-making.
Stakeholders	Quilombola communities, researchers, environmental managers and institutions working on biodiversity conservation in the Brazilian Amazon.

Report by Swissnex in Brazil, with the support of Presence Switzerland

If you have suggestions, we invite you to contact Vincent Neumann.

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Switzerland and Amazonia:
Stories of Collaboration

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