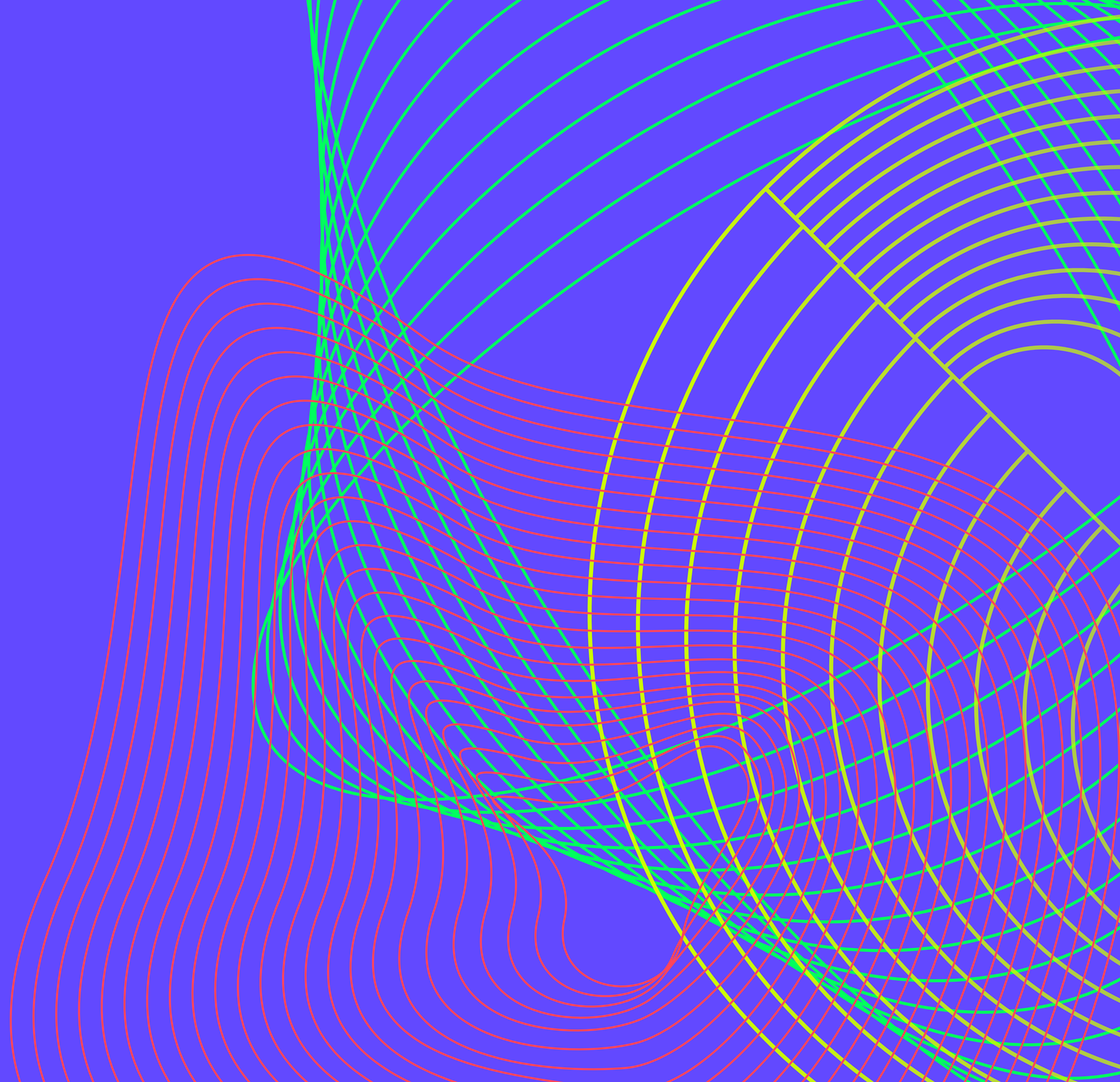


SJFJFA H U B

# COLLABORATE TO INNOVATE

2024 Annual Report



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# BOARD OF DIRECTORS

Board members were chosen in January 2024 for the 2024-2025 period.



**Manuel José Casanueva**  
SOFIFA Advisor  
Vice President at GTD



**Rosario Navarro**  
SOFIFA President



**Nicolás Uauy**  
SOFIFA Advisor



**Sebastián Ríos**  
General Manager  
at Pucobre



**Edgar Pape**  
Executive President  
at Molymet



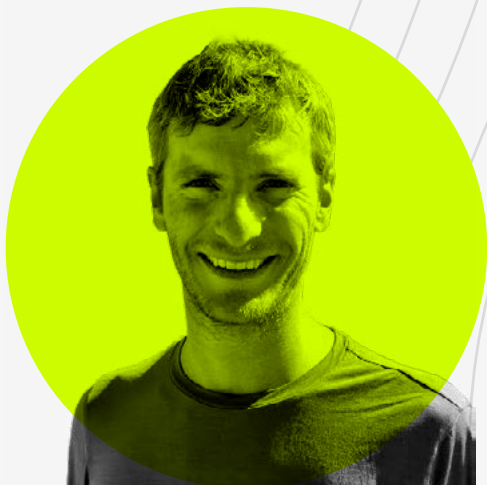
**Gonzalo Guerrero**  
President at SQM



**Carolina Torrealba**  
Independent



**Álvaro Fisher**  
Independent



**Juan Manuel Santa Cruz**  
Independent



# A MATURE ECOSYSTEM

ALAN GARCÍA

SOFOFA Hub Executive Director

The trend continues: for the last 15 years, productivity in Chile has been stagnant. Today, there is national consensus that it is necessary to promote a growth agenda for the country, and at SOFOFA Hub, we believe that one of the main ways to achieve this is through innovation. Our role is to push industry to look to the future – which is already here – and to move towards an economy based on science and knowledge.

In 2024, we turned five years old. During this time, we have closely accompanied many companies and startups. We have sought strategies to generate synergy among them, under the premise that it is impossible to innovate without collaboration. We achieved results that fill us with pride, such as raising over 23 business challenges and 28 technological solutions from 37 countries, through our Venture Client program.

Fortunately, we have witnessed how the Chilean ecosystem has matured. There is a growing interest in working collaboratively to solve the challenges of industry, and this is a strategic issue: many companies share challenges, which are usually linked to future sources of energy, to innovation in materials, to circular economy and the efficient use of water.

To discover these solutions, we must consider the opportunities that technologies such as biotech and ar-

tificial intelligence open. Both will generate disruptive changes in our industrial sector and present relevant alternatives to address our productivity, efficiency, and sustainability challenges.

On the other hand, and after more than two years of progress, we are about to finish work on the first stage of the Plant Cell Expansion Platform, together with the Institute of Agricultural Research (INIA) and the Concha y Toro Research and Innovation Center. The project objective is to create a genetic strengthening platform for different crops and to address the challenges and threats climate change poses for our agri-food sector, using state-of-the-art technology. We are convinced that projects like these will strengthen the Chilean economy of the future.

Among other initiatives, this year we organized a successful second edition of the Territorio Circular Award – with a record number of submissions. We also participated in technological missions to California and Taiwan, and we spotlighted two essential issues: the use of artificial intelligence to enhance industry, and the challenges and opportunities of adding PhDs to productive companies.

After five years, at SOFOFA Hub we continue to work to improve productivity in the industrial sector,

through collaborative innovation. Our efforts will focus on capitalizing on all our learning and networks, creating a collaborative environment to improve productivity at SOFOFA companies, helping them to face global changes more efficiently.

In 2024, we turned five years old. During this time, we have closely accompanied many companies and startups. We have looked for strategies to generate synergy among them, under the premise that it is impossible to innovate without collaboration.



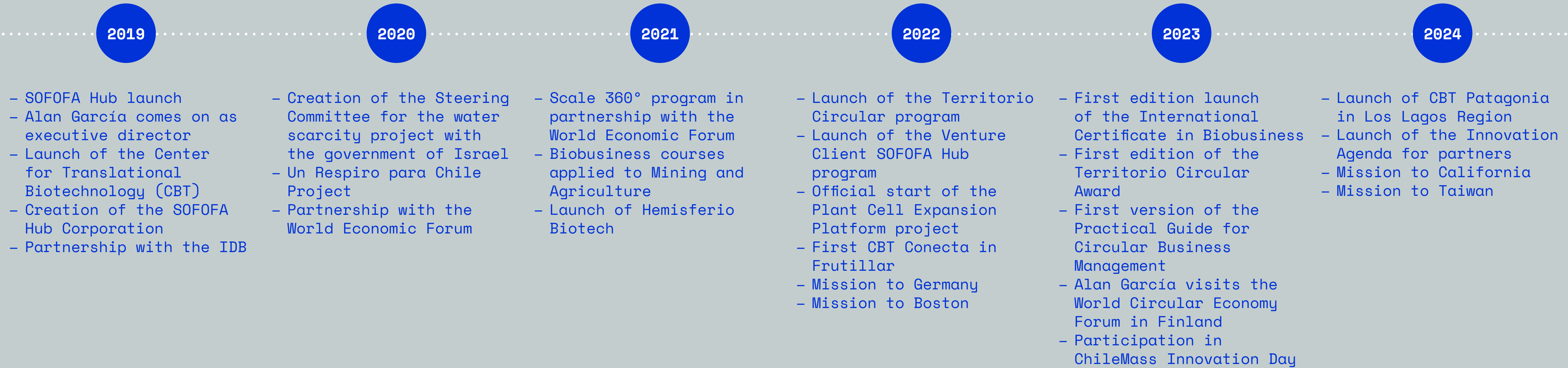


# 5 YEARS

# 4 PROGRAMS

*During these five years, we have worked to articulate a collaboration network that connects industry with scientific and technological development hubs in Chile and around the world.*

SOFIFA Hub's primary landmarks



# 5 DISCOVERIES

- 1. As a country, we must take advantage of the opportunities presented by technological changes driven by the digital and biological revolutions. Failure to do so will jeopardize the sustainability of our productive sector in the mid-term.
- 2. A real and deep collaboration of the different actors involved is a fundamental ingredient in any innovation process.
- 3. We must become aware of the importance of demand articulation roles, when designing public policies for innovation.
- 4. In Chile, we have great underutilized talent in science

and technology. If we want to be successful in the economy of the future, we must be able to put all that talent at the service of the country's great challenges in the productive sector.

5. Companies that want to be successful in their innovation strategies must build value from their business units, with the support of their corporate areas, and not the other way around.

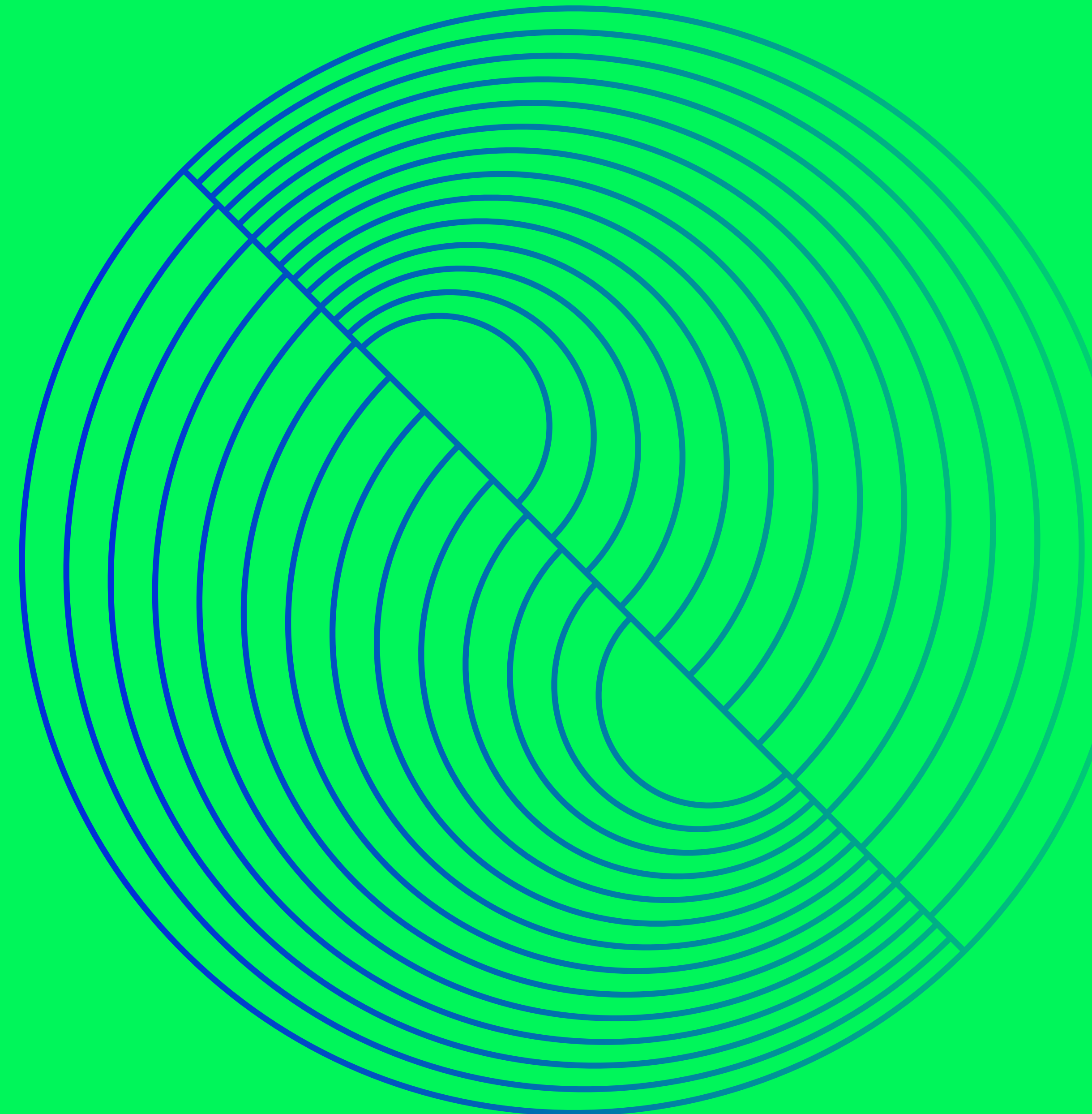
# 5 ACHIEVEMENTS

- 1. We convened the main companies in our industrial sector to create an ecosystem of collaboration around innovation.
- 2. We identified over 320 technological solutions to 23 business challenges; with them, 26 technological tests have been initiated, 10 of which have been completed.
- 3. We built an international innovation network with more than 30 countries and thousands of technology entrepreneurs, to find solutions to industry and country challenges.
- 4. Through the CBT, we have promoted development in the Chilean biotech sector. In this way, we have supported scaling projects, created a community of entrepreneurs, and articulated projects with the industrial sector.
- 5. We have accelerated the transition to a circular economy in industry, recognizing and disseminating good practices, articulating industrial symbiosis projects, and monitoring execution of Chile's circular economy roadmap.



# PARTNERS

Arguably, SOFOFA Hub's most tangible value has been in the ties we generate among our partners and scaleups from over 30 countries, seeking to solve their main challenges. Further still, we have opened new activities for them, through our "innovation agenda, which has included various instances for learning and collaboration."





# AGROSUPER

## RODRIGO ARIAS

Assistant Manager of  
Product Innovation

“One of the most important steps forward was coordinating and beginning to collaborate with startups that presented three interesting technologies for our industrial cleaning challenge. So far, the results and advances have been interesting, as we have achieved a profound fit with the needs of the industrial world.

This instance’s greatest asset is the collaboration and cross-pollination with the experiences of other large companies, orchestrated by a neutral entity such as SOF0FA Hub. In my experience, corporations face the same challenges and situations, but with different nuances. And, according to strategic and industrial cultural differences, each of us arrives at diverse solutions and alternatives, which become highly enriching when shared in this type of instance. On the other hand, bringing this kind of companies together generates value to the ecosystem, as it offers startups more effective and efficient communication channels and processes.”





# PUCOBRE

FELIPE UGARTE

Strategic Planning Manager

“Being SOFOFA Hub partners allowed us to come in contact with other companies, but above all, to achieve a fluid connection with the innovation ecosystem. As the interests of companies and startups are very different, sometimes an intermediary is needed to act as an accelerator, and SOFOFA Hub has fulfilled that role. In addition to the benefits of the Venture Client program, we participated in other learning instances. Listening to other companies share their practices and challenges has served as inspiration.”





# SQM

## IGNACIO MAJLUF

### Management and Sustainability Manager

“The collaborative environment allowed us to identify and connect with common challenges, especially in critical areas such as sustainability. Another key aspect was the Venture Client program, which made it possible to establish connections with companies from various countries, generating valuable interactions and potential solutions to operational challenges. A clear example for us was exploring technologies for heat recovery in production processes.

In addition, SQM worked privately with the CBT on a technical due diligence, which was essential for us to evaluate purchasing a company that focuses on promoting research, development of new products, and innovation. This technical support proved crucial to make informed decisions in the acquisition process and to strengthen our long-term innovation strategy.”





# MOLYMET

**EDGARDO CISTERNAS**

Research and Development Manager

“The Venture Client SOFOFA Hub program has been a vehicle to discover solutions to real industrial problems and to open the range of possibilities to improve the efficiency and sustainability of industrial operations. In addition, SOFOFA Hub allows us to share with other large companies in Chile, with which we have common challenges, despite working in very different sectors. We share good practices and innovation processes and discover different realities.”





# CMPC

## SEBASTIÁN CORTHORN

### Head of Open Innovation

“2024 was a year of double objectives. On the one hand, we implemented the Venture Client tool, considering the process, its governance, and organization. On the other, we began initial pilots and impact generation. We are proud to have managed to do both through a very well thought out and validated process, generating real operational impact, through the pilots and implementations we channeled with this tool. In addition, we received two recognitions at the national level.”

## MARIANA PARODY

### Innovation Management and Competitiveness Manager

“The main value in participating in SOFIFA Hub is cross-learning. Instances for conversation and case presentation are key tools to identify and adopt other large companies’ good practices. This enables us to identify common problems or challenges and to leverage solutions already analyzed by other partners.”





# PARTNERS 2024 INNOVATION AGENDA

	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
INNOVATION SEMINAR		“Followers or Pioneers? AI as a strategy to strengthen company productivity” seminar		CBT Conecta Maule			CBT Conecta Antofagasta	“Bringing advanced human capital closer to companies” seminar	CBT Conecta Magallanes
DEMO DAYS	Industrial automation: AI and digitalization revolutions			Efficient water management solutions		Industrial waste management solutions		Solutions in advanced industrial materials  Biotech solutions for the aquaculture industry	
TECHNOLOGICAL MISSIONS				Mission to California, USA				Mission to Taiwan	
PUBLIC POLICY WORKSHOPS				Science Ministry: Tech Transfer + AI Law	SAG: Policies and Processes	CORFO: R+D Law			
CASE ANALYSES			CMPC Cases	Agrosuper Cases	IANSA Cases				
BIG BANG THERAPY		Science and Industry Relationship Framework Workshop						Science and Industry Relationship Framework Workshop	



# DEMO DAYS

## SOLUTIONS TO CROSS-CUTTING ISSUES

New participants in the Global Strategic Partners Network added to the successful debut of the Demo Days, a new format that broadened the reach of SOFOFA Hub's startup network. During 2024, we carried out four online days, each one centering on a cross-cutting industry challenge, such as efficient water management, and industrial process automation. At both instances, startups from around the world were invited to present their solution portfolios to our partners. "It was a good way of conducting the encounter among startups with solutions to relevant problems and companies with unsatisfied needs. Several of the startups were later contacted by attending companies," says Mariana Thielemann, Entrepreneurship Manager at SOFOFA Hub.





DEMO DAY 1: INDUSTRIAL  
AUTOMATION AND  
DIGITALIZATION

Participating startups:

- Tet4D
- Coupa Software
- Wisely
- IO Sight
- Pix Force
- Innovaxxi3n

DEMO DAY 3: INDUSTRIAL  
WASTE MANAGEMENT

Participating startups:

- Schwager
- Recylink
- Food for Future
- Bioproc
- Rudanac Biotec

DEMO DAY 2: SOLUTIONS  
FOR EFFICIENT WATER  
MANAGEMENT

Participating startups:

- Ainwater
- Chucac Tech
- O2 Company
- Remote Waters
- Aquacycl

DEMO DAY 4: ADVANCED  
INDUSTRIAL MATERIALS

Participating startups:

- Atacama Biomaterials
- Patagonia Circular
- Retex
- Dexfloor
- AxiPolymer
- Artika Industrial

A SUCCESSFUL MATCH

Fernando Videla, Sustainability Change Agent at SQM Nitratos Yodo, attended the Demo Day on advanced industrial materials, which took place at SOF0FA Hub headquarters, in December 2024. From the six international startups that presented proposals, he took notice of the plant-based, biodegradable, nanotechnology dust suspenders by Chilean startup Artika Industrial.

“It was an opportunity to show our domestic industrial sector that there are disruptive technological solutions, such as nanotechnologies, that are effective, friendly with the environment, and that contribute to improving processes.”

Rodrigo Duhalde  
Artika Industrial Partner

“At the port in Tocopilla, SQM has nitrate production that is loaded in bulk, which can cause dust to pick up on windy days. After the Demo Day, we contacted Artika Industrial, as they have an agglomerating additive that stops particles from going into the atmosphere. We are very happy to have made that connection.”

Fernando Videla  
Sustainability Change Agent  
SQM Nitratos Yodo



# CASE ANALYSIS SESSIONS

At these meetings, companies presented their experiences, challenges, and learnings, sharing among peers, commenting on successful practices, and also on those that did not work. “Identifying what was done right was inspiring. Sharing good practices is something companies value, and, from SOFOFA Hub, we want to promote it,” said María José Monti, SOFOFA Hub’s Outreach Activities Advisor.

# WORKSHOPS ON PUBLIC POLICIES FOR INNOVATION

We organized three workshops to learn and reflect about challenging topics for companies and startups. The objective was to generate a space for conversation, where government representatives could explain bills relating to each topic, clarify their scope, and receive questions and feedback from diverse attending actors.

- Workshop on two Ministry of Science bills: the Law on Technology Transfer, and the Law regulating Artificial Intelligence, with the Ministry of Science, Technology, Knowledge and Innovation.
- Workshop about processes and policies, to address issues relating with current norms, permits, and processes at SAG.
- Workshop on using the benefits in the R+D law and how to make the most of this CORFO tool.





# INTERNATIONAL TECHNOLOGICAL MISSIONS

We went on two international missions, to California and Taiwan. These were strategic trips to establish new commercial ties, to get to know the local entrepreneurship and innovation ecosystem, to engender relationships for future collaboration, and to visit innovation centers and networking events with business leaders. “We are impressed with the capabilities and the vision of universities, R+D centers, and technological startups at the main innovation hubs in the globe,” commented Alan García, executive director at SOFOFA Hub.





MISSION TO CALIFORNIA

Organized by SOFOFA Hub,  
in collaboration with  
ChileMass.

DATE

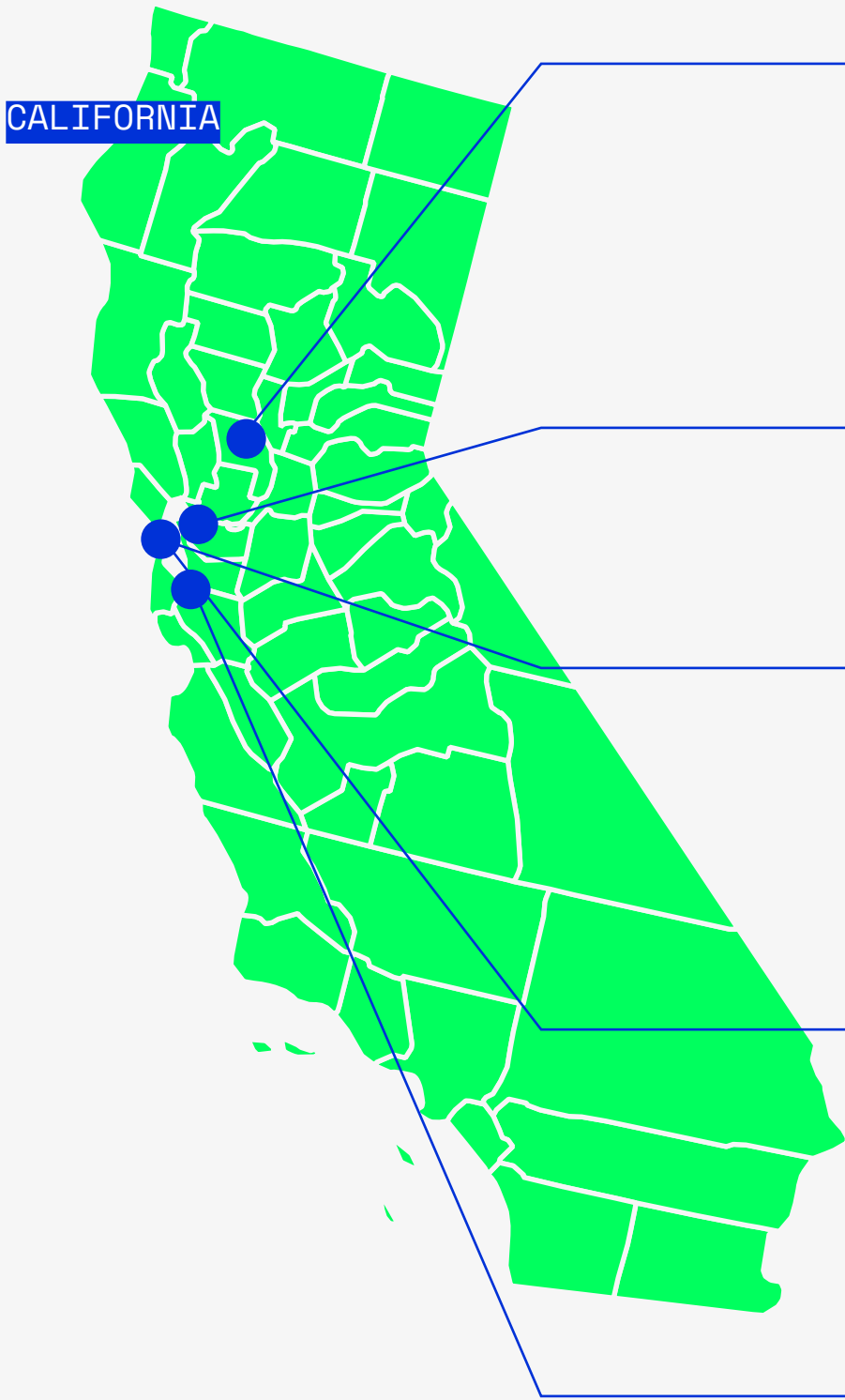
July 2024

OBJECTIVE

Becoming closely acquainted  
with one of the main global  
hubs for sustainability and  
innovation.

PARTICIPANTS

- Alan García (Executive Director at SOFOFA Hub).
- María Paz Merino (Executive Director at CBT).
- Representatives of companies including Agrosuper, Pucobre, IANSA, Concha y Toro, Resiter, Veterquímica, Kran, and ByC Servicios Financieros.



**University of California Davis:** their research focuses on the field of biotechnology, especially in agriculture, to develop plants that are resistant to diseases, droughts, and pests, and on the improvement of crops' nutritional quality.

**Joint Genome Institute:** the institute does research on genome and bioenergy. With their studies, they support the US Department of Energy.

**Innovative Genomics Institute:** founded by 2020 Nobel Chemistry laureate Jennifer Doudna, it uses genome editing techniques to decrease methane emissions and increase agricultural varieties' resilience to climate change.

**Copec Wind Ventures, COPEC Group:** The Copec investment fund looks to innovate in new energies that generate positive impact on the economy and on society. Their objective is to accelerate startup growth, and give them access to Latin American markets.

**Plug and Play:** Innovation platform devoted to catalyzing technological advancement, connecting first level corporations with promising and innovative companies.

TECHNOLOGICAL MISSION TO TAIWAN

Organized by SOFOFA.

DATE

November 2024

OBJECTIVE

Getting to know the Taiwanese innovation and technology ecosystem.

PARTICIPANTS

- Alan García (Executive Director at SOFOFA Hub).
- Rodrigo Yáñez (Secretary General at SOFOFA).

Taiwan offers Chile a very interesting experience in public policies on innovation, including their plan for scientific parks, and their road map for R+D, led by the Industrial Technology Research Institute (ITRI). Furthermore, it is one of the main innovation hubs in semiconductors and could play a relevant role in digitalizing our industrial sector, as well as providing AI infrastructure to Chile. We created connections with business associations and technological startups, who will help us to find technological solutions to our challenges.”  
Alan García, SOFOFA Hub’s Executive Director



# SEMINARS SPEAKING ABOUT WHAT MATTERS TO US



## FOLLOWERS OR PIONEERS? AI AS A STRATEGY TO STRENGTHEN COMPANY PRODUCTIVITY

*This initiative was organized by SOFOFA Hub, together with Futuro del Trabajo SOFOFA Capital Humano and CENIA, with support from the Inter-American Development Bank.*

At the seminar, and before an audience of 300 people, Science Minister Aisén Etcheverry emphasized that today AI is an enormous opportunity, and highlighted the need for collaboration between companies, startups, and research centers to take advantage of its potential.

Two panel discussions took place during the session: at one of them, guests from technological companies debated about Chile's reality in terms of artificial intelligence, while at the other, companies shared experiences and successful applications of AI in the industrial sector, such as in Agrosuper and CMPC, who have reduced costs up to 30%. Also launched during the seminar was Gerencia, a program for C level executives in the strategic use of artificial intelligence.

**We believe that artificial intelligence offers an opportunity to revert the low productivity levels we face in Chile. However, in order to really take advantage of it, we need to create enabling conditions in at least three areas: develop the necessary capabilities in terms of human capital, improve technological infrastructure, and roll out clear rules that engender certainty for investment. At SOFOFA, we will put everything in our reach to achieve this and to connect companies with the world of science and technology."**

**Rosario Navarro**  
SOFOFA President

## BRINGING ADVANCED HUMAN CAPITAL CLOSER TO COMPANIES

*Organized by SOFOFA Hub, CBT Chile, and SOFOFA.*

The event took on the importance of incorporating PhDs and Research and development (R+D) experts in the industrial field. In three panel conversations, attendees discussed the value of integrating PhD recipients in the industrial sector, at large companies, and at startups. Speakers shared experiences about how academia can contribute to the industrial transformation process and agreed to continue promoting collaboration between the academic world and the manufacturing sector, to strengthen innovation and competitiveness in the country.

**Only 7% of PhD recipients in Chile work in the industrial sector.**

**You can watch the seminars here:**

**Pioneers or  
Followers?**



**Bringing Advanced  
Human Capital Closer  
to Companies**







"A PhD working on R+D does not generate an immediate effect. Their role is to question and to think how to do things differently in the medium and long term. We have to incorporate this patience both in the political narrative and in the definition of internal processes."

Aisén Etcheverry  
Minister of Science,  
Technology, Knowledge and  
Innovation



"We are a biotechnology company; we do not work without PhDs. Without advanced capital, the company would not exist."

Sabrina Torga  
CFO at PhageLab



"There are thousands of fascinating challenges that can be solved through specialized disciplines. In crossing industry -which has the business vision of creating value- with knowledge, you can generate a pretty powerful synergy."

Catalina Urrejola  
CTO at Ceibo



"At a company that wants to diversify, like IANSA, bringing in the fresh air from academia -which helps us use the scientific method to challenge ourselves- was quite necessary."

Pedro Sanhueza  
Quality and Excellence  
Manager at Empresas IANSA



"Doctors contribute knowledge, methodology, criteria, and a very critical analysis of scenarios."

Bibiana Rubini  
R+D+I Manager at CMPC

Testimonials taken during the "Bringing Advanced Human Capital Closer to Companies" seminar.





We opened a new cluster in southern Chile -CBT Patagonia- to continue bringing biotechnology closer to industry in the regions. Likewise, we made advances on the Plant Cell Expansion Platform, saw the first graduate of the Hemisferio Biotech program, made new partnerships, and pushed forward the creation of Biotribu, a new collective that promotes development in biotechnology.

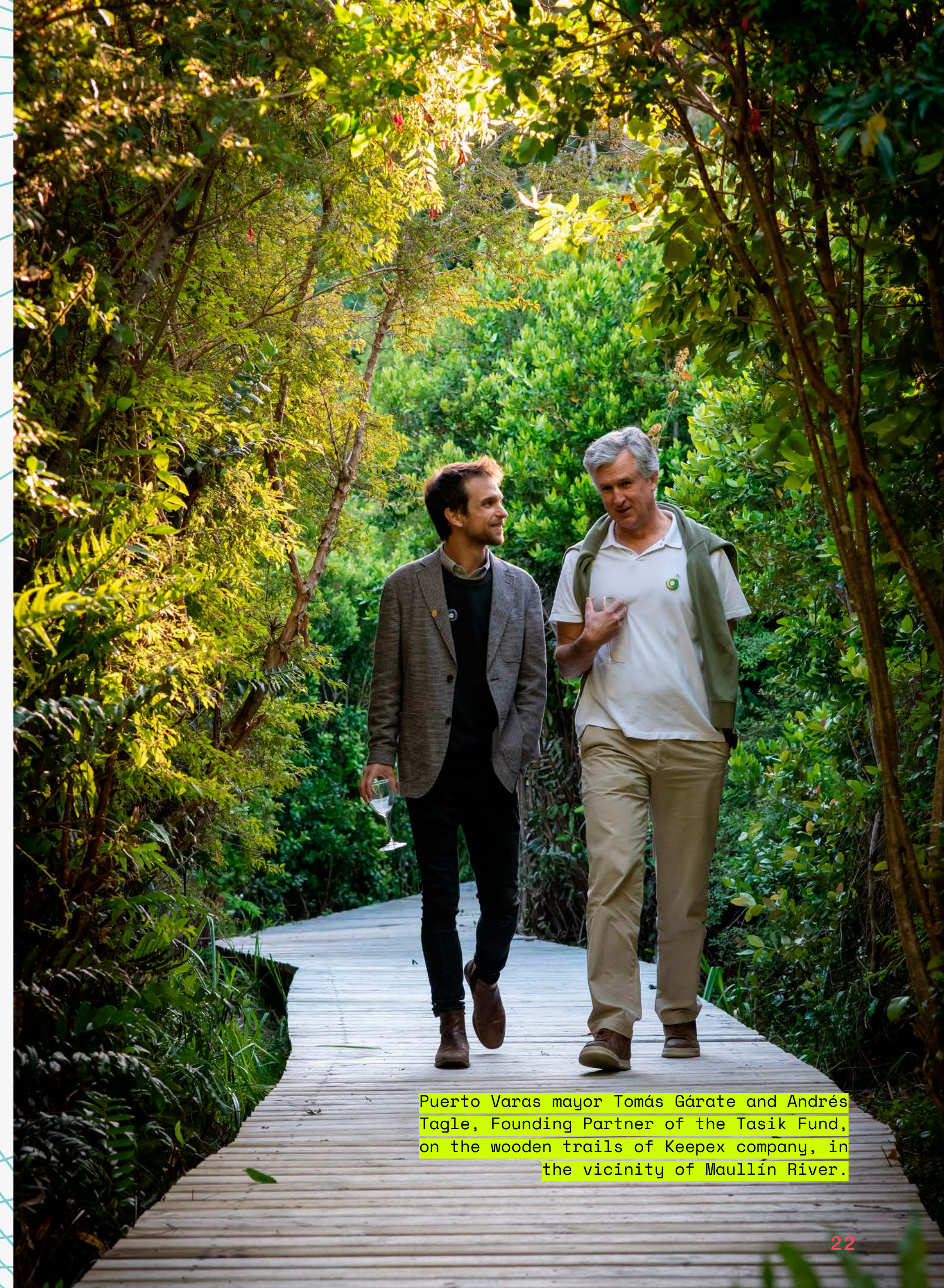


# CBT PATAGONIA

## WE OPENED A NEW OFFICE IN THE SOUTH

*SOFOFA Hub, CBT and ANID chose Los Lagos Region to establish the first CBT regional cluster. The decision was made given its productive sector potential, along with its burgeoning entrepreneur ecosystem.*

CBT Patagonia opened its doors in Puerto Varas, in January 2024, near the beautiful landscapes of Lake Llanquihue. The launch had in attendance SOFOFA President Rosario Navarro, company executives, startups, investors, and members of the academic world. Macarena Carrió was designated CBT Patagonia director.



Puerto Varas mayor Tomás Gárate and Andrés Tagle, Founding Partner of the Tasik Fund, on the wooden trails of Keepex company, in the vicinity of Maullín River.





**ALAN GARCÍA**  
Executive Director  
at SOFOFA Hub

“This region has tremendous innovation potential. It is home to industries and productive sectors that are changing rapidly, along with an entrepreneurial community that has grown with a great culture of collaboration. Salmon farming, mussel culture, agriculture, and livestock require biotechnology to move toward a sustainable development model. With the CBT, we will connect this ecosystem to strengthen productive and technological development.”



“I am positively impressed with what is incubating today in Puerto Varas. We have set up the goal for CBT Patagonia to become a hub that connects industry with the world of knowledge and innovation, so that Chile will become a platform that changes future development models.”

**ROSARIO NAVARRO**  
SOFIFA President





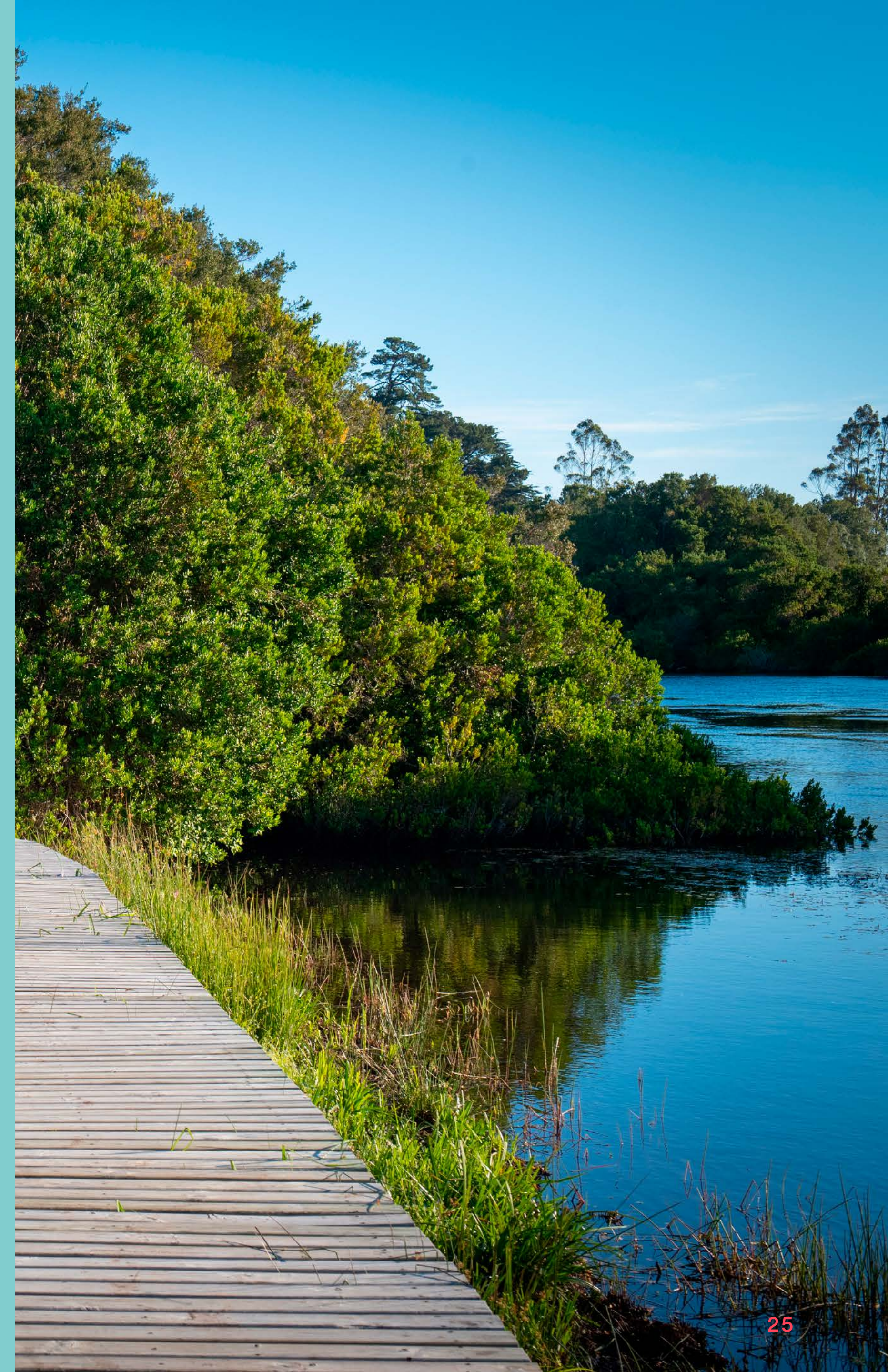
# WHY IN LOS LAGOS?

For some years now, an idea was percolating at SOFOFA Hub meetings: to open another CBT office in a different region in Chile. But where to do it? With the objective of finding the best spot, we commissioned the UC Anacleto Angelini Innovation Center to carry out the “Study about gaps and opportunities for regional biotechnology adoption, to define national hubs for the Translational Biotechnology Center (CBT).”

The study assessed the maturity of biotech ecosystems in the country. To that end, they analyzed economic indicators such as industrial R+D investment and execution, and the capabilities of generating knowledge and human capital. In the end, this study suggested setting up CBT in Los Lagos.

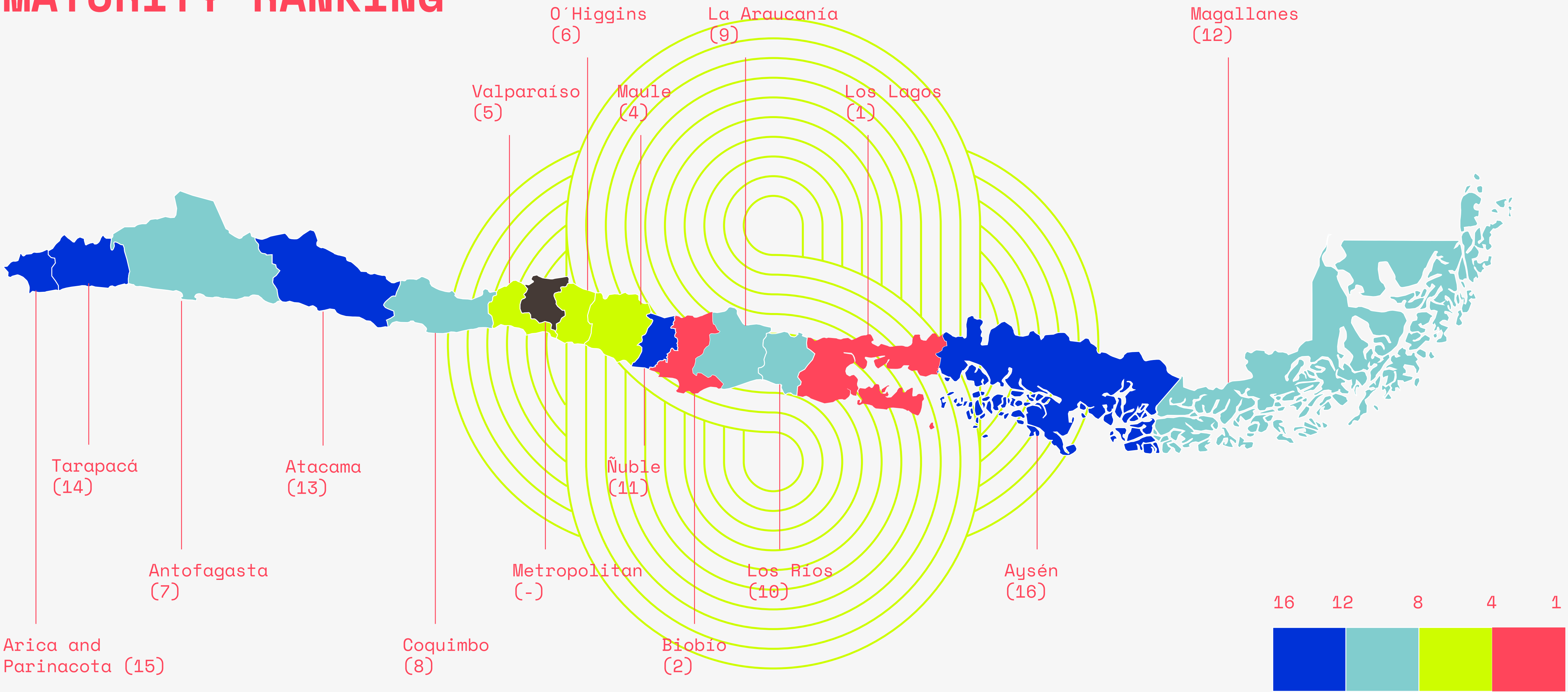
## LOS LAGOS’ STRENGTHS FOR SETTING UP A BIOTECH CLUSTER:

- A large number of entrepreneurs already in place
- Presence of companies that invest in R+D
- A regional government committed to innovation
- Broad biotech supply and demand





# BIOTECH ECOSYSTEM MATURITY RANKING





# Consolidating a Development Hub

**MACARENA CARRIÓ**  
CBT Patagonia Director

## WHAT ACHIEVEMENTS WOULD YOU HIGHLIGHT IN YEAR ONE?

We confirmed that betting on this region was the right call. There was a highly effervescent ecosystem in place, with actors eager to do things, who had been driving for some time the idea of developing a biotech hub for Chile and the world. When CBT arrived, this energy became catalyzed, and people said, “let’s go.” During this first year, we have tried to develop strategies to bring local companies together. We started implementing the first collaborative work pilots among startups and companies. Also in 2024, together with eight other partners, we founded the Patagonia Biotech Hub, a space for innovation and collaboration located in Puerto Varas, which includes a coworking space and a future laboratory.

## WHAT SYNERGIES HAVE YOU HAD WITH PATAGONIA BIOTECH HUB?

Although the Hub is physically located in Puerto Varas, it has national reach, with the objective of turning Los Lagos Region into a biotechnology cluster, contributing to diversify our country’s productive matrix and to decentralize Chile. Today, this is the great synergy: sitting at the same table, we have the great companies, which require these new technologies, the largest biotech businesses in the country, who no longer want to be so isolated, and civil society organizations, which are pushing development in this industry. The Hub and CBT Patagonia have similar and intertwining objectives, especially in what relates to development of the biotechnology industry in Chile, along with the training of advanced human capital. In that sense, the Hub has accelerated CBT’s goals; something we could have done by ourselves, in a longer period of time, was catalyzed very quickly with the creation of this hub.

## HOW DO YOU WANT TO CONTRIBUTE TO COMPANIES?

One of SOFOFA Hub’s most important features is their ties to the national and international entrepreneurial and innovation ecosystems. Thanks to their solid connection with this network, CBT Patagonia can be a strategic partner for corporations in their innovation processes, bringing them closer to the latest available technologies and solutions, in a concrete and direct way, and at the same time, acting as a technical validator, ensuring technical quality and commercial capacity.

## HOW DO YOU IMAGINE CBT PATAGONIA IN THE FUTURE?

I would like for us to consolidate a biotech development hub at the national level. I imagine such a potent cluster that entrepreneurs thinking of developing a biotech company will consider coming to this region. I imagine CBT having a very active role in bringing solutions to different companies, with a great experience in validating these solutions, training the human capital businesses need to continue developing, and at the same time, bringing biotechnology closer to people, making it more accessible.







**MACARENA CARRIÓ**  
CBT Patagonia Director

“CBT Patagonia can be a strategic partner in corporate innovation processes, bringing companies closer to the latest available technologies and solutions, in a very direct and concrete way, while at the same time, being a technical validator, ensuring technical quality and commercial capacity.”







# INITIAL ACTIVITIES

"It is tremendously necessary for biotechnology to catch on in the salmon industry, which is the engine in the south of Chile. It needs entrepreneurship, providers, innovation, and to generate ideas regarding how to make it more sustainable in the long term. Biotech entrepreneurs here in the South need to have an umbrella that will bring them together, and I think CBT Patagonia is the instance that will make all this possible."

Sady Delgado  
General Manager at AquaChile

JAN.

- **CBT Patagonia launch:** local industry leaders, authorities, and entrepreneurs in the region were in attendance. Remarks centered on biotechnology, and strategies were sought to bring it closer to companies. SOFOFA Hub convened the entire ecosystem to be part of a biotech revolution.
- **Birth of the Patagonia Biotech Hub:** initial meetings were organized to give shape to the idea of setting up a biotechnology hub in the area. Participating in the instance were Kura Biotech, Endeavor, and the Municipality of Puerto Varas.

MAY

- **1st Biotechnology Conference:** The first conference on biotechnology in Puerto Varas convened over 100 attendees, representing almost the entire biotech ecosystem in Chile. Discussion centered on the main industry challenges, and one of the primary conclusions was the creation of a trade union called EMBIO.

AUG.

- **Patagonia Biotech Hub launch:** the opening ceremony of Patagonia Biotech Hub brought together the Minister of Science, Technology, Knowledge and Innovation Aisén Etcheverry and other authorities. CBT was part of the managing team and the founding partners.

NOV.

- **Biotech Week Puerto Varas:** this training and innovation program was promoted by the City of Puerto Varas and the Patagonia Biotech Hub, and it managed to impact and connect stakeholders with the biotech industry. One of the CBT-led activities was the aquaculture industry Demo Day, where 10 startups presented their biotech solutions to address sector challenges. Some companies are already working on pilots of the ideas present at the event.



## Improving Fish Health and Well-Being

**ALBERTO DEL PEDREGAL**

Assistant Manager for Corporate Strategy and Development at Multi X.  
Patagonia Biotech Hub  
Founding Partner.



### WHAT EXPECTATIONS DO YOU HAVE WITH THE ARRIVAL OF CBT IN PATAGONIA?

It is a great driver for innovation in Los Lagos Region, which is currently experiencing a key moment of transformation and technological development. A biotechnology hub will let us develop solutions that adapt to challenges in strategic industries, such as aquaculture, improving competitiveness and sustainability.

At Multi X, we believe collaboration among companies, startups, and research centers is fundamental to accelerate this process. For this reason, we came on board Patagonia Biotech Hub as founding partners, reaffirming our commitment to the development of new technologies that contribute value to the region and to aquaculture evolution. Biotechnology is a fundamental tool to make strides in production that is more sustainable and responsible, in alignment with the current needs of the industry.

### WHAT CHALLENGE WOULD YOU LIKE TO SOLVE WITH BIOTECHNOLOGY?

One of our main challenges is to improve the health and well-being of our fish, and biotechnology plays a key role in this issue. We sought to develop innovative solutions to prevent and treat the disease salmonid rickettsial septicemia (SRS), eliminating the need to use antibiotics, and to control caligus (a species of sea lice), improving fish resilience.

Likewise, we explored advanced early pathogen diagnostic and detection technologies, which will enable us to react more efficiently when facing possible outbreaks. We are also interested in the use of functional food additives, which can strengthen fish's immune system and optimize their health at early stages.



Photo: Multi X.





# NEW HUB LAUNCH: PATAGONIA BIOTECH HUB

This new coworking space seeks to position Chile as a global reference point in biotechnology, leveraging the advantages in the region: quality of life, biodiversity, and a dynamic entrepreneurial ecosystem.

From Puerto Varas, and driven by the enthusiasm of its founding partners, Patagonia Biotech Hub launched in August 2024, and Chilean companies and professionals tied to biotechnology are already converging in this space.

CASA KUSCHEL, Klenner 299,  
Coworking space, 100 m<sup>2</sup>  
+  
PARQUE ESTACIÓN, Klenner 348,  
Laboratory, 140 m<sup>2</sup>



**PARTNERS:**

- Kura Biotech
- AquaChile
- Multi X
- Veterquímica
- Acuanativa
- Genera4
- Christoph Schiess
- Agrotop

**ECOSYSTEM PARTNERS:**

- CBT- SOFOFA Hub
- Municipality of Puerto Varas
- Endeavor

Starting in 2025, CBT will build a lab with a 140-square-meter floorplan, which will be available to entrepreneurs incubated at the Hub. The objective is to reduce the gaps biotech startups have in equipment access, especially at the beginning.



# Biotechnology Entrepreneurship from the South

**EDUARDO WALLACH**

Kura Biotech Executive Director  
and Patagonia Biotech Hub Founder



## WHY DO YOU THINK IT'S KEY TO DEVELOP A BIOTECHNOLOGY HUB IN THE REGION?

The arrival of CBT in the region, in addition to the concrete work the team does in the field, represents a stroke of confidence in the importance of the biotech industry. Biotechnology, together with artificial intelligence, are technologies that will have the most profound impacts on humanity over the next 50 to 100 years. The development of industries with such potential and added value in regions is the only way to achieve a true regionalization of the country.

## HOW OPEN IS CHILEAN INDUSTRY TO BIOTECHNOLOGY?

There is a lack of knowledge at many companies, about biotechnology's real potential impact. These businesses continue to look at this science like it was 10 or 20 years ago, very limited to specific issues such as nutrition, waste management, or diseases. They are still not aware about the opportunities that branches like synthetic biology and bioinformatics can open up, where many of the limits regarding potential areas of impact no longer exist.

## HOW DO YOU PICTURE THE HUB IN FIVE OR TEN YEARS?

I hope the Hub will become the best place to start a business in biotechnology in Chile, and one of the most attractive in Latin America, concentrating a critical mass of talent to obtain natural synergies. In five or ten years, I imagine it as a large biotech campus, housing hundreds of startups from around the world, universities, technical training centers, and schools focusing on the life sciences, along with consolidated biotechnology companies, all of them in the same place, generating a focal point of economic development for the region and the country.



## THREE REASONS TO SUPPORT BIOTECHNOLOGY

- It is the industry that will have the biggest impact on humanity over the next 50 years.
- Worldwide, it is a \$1.5 billion industry that grows at a yearly 14%. By 2030, it is expected to grow to 4 billion, while the aggregate of the entire global mining industry will reach 3 billion.
- It is the science generating the biggest number of patents worldwide, surpassing computational information technologies and electronics.

Sources:  
[https://www.researchandmarkets.com/report/mining?utm\\_source=chatgpt.com](https://www.researchandmarkets.com/report/mining?utm_source=chatgpt.com)  
<https://www.grandviewresearch.com/industry-analysis/biotechnology-market>



“CBT’s arrival in the region, in addition to the concrete work the team does in the field, represents a stroke of confidence regarding the importance of the biotech industry.”

Kura Biotech team



**MARÍA PAZ MERINO**  
CBT Executive  
Director



“The amazing reception that CBT Patagonia and the Patagonia Biotech Hub have had confirms our stake in Los Lagos Region. However, this is only the beginning of the road. One of our discoveries this first year has been that companies need time and trust to visualize the benefit that incorporating biotechnology may have as a strategic cornerstone to solve their challenges.”





# PLANT CELL EXPANSION PLATFORM (PECV) SUCCESS AT STAGE ONE

After 30 months' work, the first stage of the Plant Cell Expansion Platform is soon coming to a close in June 2025. This innovative public-private effort, among the Institute of Agriculture and Livestock Research (INIA), the Viña Concha y Toro Research and Innovation Center, and CBT, promotes cutting-edge technology to strengthen grape crops genetically.

## ACHIEVEMENTS IN STAGE ONE (2022-2025)

- Standardized protocols and procedures were developed, which strengthen genetic improvement in plant species through biotechnological tools.
- Precise and efficient genetic modifications were achieved in plant tissue cultures.
- Genetic editing is being evaluated for three common grape vine varieties with improved resistance to pathogens and two rootstocks with tolerance to drought, and over 100 experimental plants in greenhouses, at evaluation phase.

## NEXT STAGE OBJECTIVES (2025-2029)

- Broaden the species portfolio to others of industrial interest, bringing on new companies.
- Improve efficiency and validation of existing protocols.
- Modernize genetic editing processes via CRISPR/Cas and other technological advances.
- Analyze the regulatory and intellectual property frameworks to find and address possible limitations to industrial implementation.



# AN OPPORTUNITY FOR OUR INDUSTRY

CAROLINA TORREALBA

SOFOFA Hub Director  
Vice President of Research and  
Postgraduate Studies at UNAB



“There are two disruptive technologies that are generating exponential change in our surroundings and lifestyles: artificial intelligence and biotechnology. The latter, in Chile’s case, takes on especial relevance for two reasons. The first of these is our vulnerability to climate change, as we are one of the countries that will be hit the hardest by its effects. This implies that we have to generate mechanisms for resilience and adaptation, for example, to use our soil for plant production or to generate biotech tools that allow our plant species to adapt to climate change. Through biotechnology and genetic editing, we could produce plant species that are more resistant to pathogens and to the weather.

The second reason is that in Chile, the main industries are based on natural resources, and therefore, they are susceptible to transformations by this technology. This spans from mining and biomining, with alternative mechanisms for cobalt extraction, to agriculture and salmon farming.

Without a doubt, this technology represents an opportunity to maintain a highly sophisticated, effective, and competitive production based on natural resources, while protecting our environment and strengthening our biodiversity.”

# DEVELOPING CAPABILITIES

ÁLVARO GONZÁLEZ

Director at the Viña Concha y Toro  
Center for Innovation and Research



“Two-and-a-half years after project kickoff, our assessment is positive. Viña Concha y Toro has been a pioneer in working with key biotechnologies to generate plant materials of the highest health and genetic quality. For their part, CBT and SOFOFA Hub made interesting contributions in disseminating the role of biotechnology in the food and agricultural industries. Precisely, one of the joint challenges we have, in addition to developing new technologies that impact the agricultural sector, is to improve public knowledge on the matter, which will foster a good reception from society and consumers.

We see opportunities that go beyond the wine industry, into other crops and sectors within agriculture, as the technologies developed here can be replicated in other industries. There are precompetitive challenges that must be addressed collaboratively. It is important to generate joint activities with other actors, within and outside the industry, so these technologies will be accepted and incorporated into the ecosystem, by producers, by regulatory agencies in government, and by consumers.”



## CBT CONECTA MAULE AND MAGALLANES LOGBOOKS

During the third year of this program, which organizes spaces for the biotech ecosystem to meet and strengthen innovation and technology in regions, we carried out two large events: CBT Conecta Maule, in Talca, which focused on the food industry, and CBT Conecta Magallanes, about biotechnology for the region's future. Here, two participants give an account of their experience.

### CBT CONECTA MAULE INSPIRATION AND NEW IDEAS

**Pablo Sanhueza, Quality and Operational Excellence Manager at Empresas IANSA, was one of the panelists at the event, which saw members of other companies, startups, academics, consultants, and providers in attendance. He retells his experience at the gathering.**

“At CBT Conecta Maule, I shared some of our innovations, especially those relating to sustainability in our productive chain. For example, together with another panelist, we shared the symbiotic collaboration we have with Food for Future (F4F), an innovative Chilean startup located in Talca, which takes our biological waste -such as apple and tomato peels- and uses it as raw material to generate protein from black soldier fly larvae, as well as ecofriendly oils and fertilizers. Solutions such as these are completely feasible, and local companies are turning to biotechnology to address their challenges.

Participating also allowed us to connect with people in the sector. We had very interesting meetings, in a relaxed format, with room to talk. I devoted an afternoon to it and came away with many ideas and a dozen business cards and links. I have already connected some of the entrepreneurs with a number of the areas within IANSA.

CBT Conecta provides a space for conversation and contact that, true to its name, connects you with innovation and businesses in development in the agrarian heart of the country, the Maule Region. Even more so, something happens that is very important to me: it helps you get inspired.”

### CBT CONECTA MAGALLANES NEW CONNECTIONS THAT STRENGTHEN

**Sergio Radic, Innovation and Transfer Director at Universidad de Magallanes, narrates the progression of an event rich with exchanges and motivation, to enhance the region as a natural laboratory.**

“In December, our university hosted the first CBT Conecta in Punta Arenas, with scientific communicator Gabriel León as moderator. The event was full of interesting exchanges. At the first panel -Let's Imagine Magallanes' Future Together-, we talked about the importance of being self-sustaining. One of the panelists was Tania Pivcevic, DAP Airlines director, since Magallanes is one of the few regions with its own airline, due to our connectivity needs. Isolation is our challenge, but it is our strength, at the same time: we are a natural laboratory and we carry out novel research.

At our panel on Innovation and Biotechnology, our academic Valeria Latorre presented her work on in vitro propagation of wild strawberries and other native plants. The research is very much in line with the presentation by the speaker from Rubisco Biotechnology, a company devoted to artificial plantations of native Fitzroya. This engendered a great connection and many possibilities to collaborate in the future.

Fostering nexuses among startups, companies, public agencies, and academia, while each share their experiences, is CBT Conecta's great contribution. All these connections add to strengthen the local innovation ecosystem.”



## HEMISFERIO BIOTECH RUBISCO BIOTECHNOLOGY, THE LIFTOFF OF OUR FIRST PROGRAM GRADUATE

With CBT's support, in three years, Rubisco Biotechnology went from being a small project to a large business, becoming the first startup to graduate from the Hemisferio Biotech program.

When Rubisco Biotechnology applied to the first Hemisferio Biotech call in 2021, they were a Chilean technology startup, with four employees, which specialized in plant cell cultures. They had developed a novel anti-aging active ingredient for the cosmetic industry, stemming from *Fitzroya* cell cultures, a tree that is protected by law. "It cannot be exploited for commercial objectives, except if done from an artificial reproduction in a lab culture. And that's what we did with our plant cell cultures," says company CEO Felipe Aquea.

After five years perfecting the R+D, they arrived at a prototype that was ready to be commercialized, but they were facing the "valley of death" for biotech companies: scaling the technology, from the lab flasks to the hundreds of liters the industry demanded, along with commercialization that could reach the global market.

"Over 80% of biotech companies fail at this stage. Hemisferio Biotech focuses on this last mile and suppor-

ted us in the gigantic challenge before us," remembers Felipe Aquea.

During the program's three years, CBT supported the project's efforts to link with the market, with expert networks and capabilities, while also contributing co-financing of up to 60% for infrastructure, equipment, new human resources related to scaling, activities for innovation, technology transfer and entrepreneurship, legal counsel, project management, and operational expenses.

In April 2022, when they started executing the project, Rubisco produced their cell cultures at a coworking laboratory shared with other startups in the community of La Reina, in Santiago; they were unable to produce more than a liter of product each month. Their goal was to adjust their recipe and technology to produce 600. The program enabled them to finance technical consulting with a Swedish company, Invitro Plant Tech, and to participate at cosmetic industry fairs in Europe and Asia.



As they advanced in the size of their scaling, they faced unexpected problems. In 2023, they commercialized the first batch of 20 liters, sent from Invitro Plant Tech to their distributor in Spain, but the product arrived at its destination with an awful smell. "We spent two months with the Swedish company, trying to decipher what had happened, while having monthly follow-up meetings with the Hemisferio Biotech committee, who were very flexible in re-itemizing the resources vis-a-vis these situations," Aquea reflects.

They discovered that *Fitzroya* cells, when produced in large volumes, release a very particular metabolic odor. Therefore, production amounts in each batch had to be smaller. "That issue drove us to implement production in Chile, in order to fulfill that purchase order," he remembers. They set up a pilot plant in Limache, to produce the plant raw material in bioreactors, but they realized the available electrical capacity was not

enough and power would go out. They decided to move the equipment to Santiago, and today, the company has their own 400-m2 laboratory, and the production process is done 100% in Chile.

Today, the company is made-up of 12 people, eight women and four men. Having overcome one of the most difficult stages, they project further growth and have diversified their portfolio. From a single *Fitzroya* cell product ready for commercialization in 2022, in 2024, they commercialized active ingredients from cell cultures of maqui (Chilean wineberry), flor del desierto (desert rose), and quillay (soapbark). Other 16 native species are at development stage, for use as active ingredients in lotions, serums, and other products for hair and skin care.



## HELP DURING THE TOUGHEST TIMES

The Hemisferio Biotech program, from SOF0FA Hub's Translational Biotechnology Center (CBT), seeks to accelerate development of biotechnology-based products and services at scaling stage. From the program's inception in 2022, it has supported six Chilean startups at this crucial stage. The selected startup during the 2024 call was Ecombio, a biotechnology company specialized in the study and control of microorganisms and biofilms.



“Chile's economy is based on the exploitation of natural resources, and biotechnology is key to improve these business models. Programs such as Hemisferio Biotech promote new companies reaching the market and generating success cases, moving from projects into businesses.”  
Felipe Aquea, CEO at Rubisco Biotechnology

Photo: Rubisco Biotechnology



# BIOTRIBU

## A NEW COMMUNITY OF BIOTECHNOLOGY ENTREPRENEURS IS BORN

*In the beginning of 2024, CBT started the Biotribu, or “Bio-tribe”, an instance for biotech entrepreneurs to create community, which has already given rise to potent initiatives, such as the science and industry relationship framework.*

As it usually happens with good ideas, Biotribu was born quite casually, while a group of biotech entrepreneurs shared a coffee at one of CBT’s Hemisferio Bio-tech program meetings. “We realized that each time we got together, we exchanged ideas, good practices, and contacts, with much enthusiasm and eagerness to collaborate. However, there was no formal instance that brought us together. So, we proposed to bring this community together,” says María Paz Merino, Executive Director at CBT.

That very day, we set up a WhatsApp group with some 20 entrepreneurs, and, in January 2024, SOFOFA Hub’s CBT convened the first meeting of Biotribu, a name that was proposed by the participants themselves. At the meeting, they explored the current gaps they have as biotechnology startups, and the barriers to bringing

biological supplies into the country. But the main challenge for most of the members in the community is the relationship between startups and universities. “It is a very asymmetric relationship, one that is bureaucratic and hard to navigate, as each university has its own processes and manuals,” explains Diego Belmar, CSO at Done Properly, a company that develops food ingredients with biotechnology. “Then, we thought about a way to standardize a protocol that facilitates these relationships, as it happens in countries that have implemented a framework.”

In addition to developing the framework, in 2024, Biotribu organized three instances to enhance their knowledge with specialists from the biotech ecosystem:

- Claudia Altamirano, professor at PUCV School of Biochemical Engineering, who shared her experience in cell culture and bioprocesses research.
- Alejandro Bisquertt, Science Manager and Founder at Codebreaker Bioscience.
- Federico Marque, General Partner at Grid Exponential, shared his vision about the internationalization of Latin American scientific startups.





# DESIGNING A FRAMEWORK

The project of designing a framework was put in practice immediately, incorporating players in academia, companies, research centers, and other hubs, in addition to the Biotribu, all of whom worked collaboratively, thanks to a methodology developed among CBT, HubTec, and LES Chile.

## What is a relationship framework?

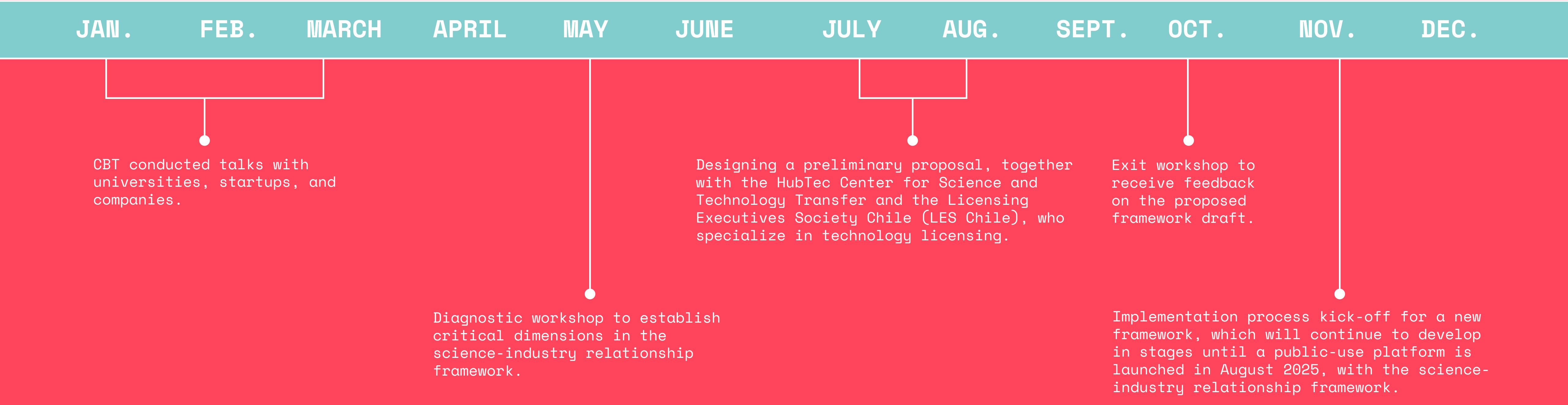
It is a work strategy or process flow with the objective of becoming a tool that guides and simplifies the first stages of connection between industry and science, facilitating collaboration in innovation, research, and development projects.

According to the Global Innovation Index 2023, collaborative R+D between universities and industry is a weakness in Chile, compared to countries with similar income, with an overall low absolute ranking.

- Companies, startups, and universities are key actors for the country’s development through innovation. However, given the intrinsic differences between each group’s interests, collaboration among them faces obstacles that must be addressed.
- Other countries including the United Kingdom, the

United States, Australia, and New Zealand have developed frameworks, based on a set of tools, to promote science-industry collaboration.

- Biotribu proposed working with other actors to design together a science-industry relationship framework, to guide collaborative work and promote knowledge transfer and innovation.





# NEW PARTNERS

## FUNDACIÓN CIENCIA Y VIDA

In December 2024, CBT added an important partner in the biotech ecosystem, with the signature of a collaboration agreement with Fundación Ciencia y Vida (Science and Life Foundation). Founded in 1997, this excellence science and technology center today belongs to Universidad San Sebastián, and has its headquarters and laboratories at the Science, Innovation and Entrepreneurship Park, in Ciudad Empresarial. It hosts more than 120 scientists, doing research in biomedicine, computational biology, and microbiology. It also supports the creation of science-based companies, a mission very much in line with CBT's.

Business director at Fundación Ciencia y Vida, Constanza Sigala, points out that both institutions will strengthen one another. "CBT has a broad network of biotech startups, and through SOFOFA, of corporations with whom we can generate collaboration in research projects and on diverse technological developments. Most of the companies linked to CBT focus on areas with higher economic development in Chile, such as the livestock, agriculture, and mining sectors. We can contribute our specialty in the biomedical field, and support



biomedical startups at different development stages, or collaborate and exchange capabilities within our park. For example, there is previous experience in work with bioreactors and other technologies that can strengthen this common goal of enhancing the biotech industry," Sigala points out.

Another objective of this partnership is to bring biotechnology closer to industry, to academia, and to other players, through workshops and seminars: "For instance, showing our doctoral candidates what CBT does is a very good showcase for the innovation needs they can satisfy in industry," she adds.

## SERVICIO AGRÍCOLA GANADERO (LIVESTOCK AND AGRICULTURE SERVICE)

At the beginning of 2024, SOFOFA Hub and Chile's Livestock and Agriculture Service (SAG) decided to sign a collaboration agreement to work with CBT on regulatory matters and on promoting innovation. "Regulatory matters are one of the main issues in the biotech ecosystem, from permits to import biological supplies, to how to formulate projects from a regulation standpoint, to work with new biotechnologies for which there is no legislation yet," explains CBT director María Paz Merino.

In order to bring SAG closer to the community, the agreement contemplated carrying out an initial workshop about public policies for innovation, which took place in August 2024, at SOFOFA Hub headquarters. National SAG director José Guajardo Reyes arrived together with a multidisciplinary team from the institution's agricultural and livestock areas. It was an invaluable opportunity for startups, biotech entrepreneurs, and academic researchers to directly voice their concerns to the SAG team, in a frank and clarifying conversation about the conditions that must exist in the country to drive innovation.

"One of entrepreneurs' great doubts is the procedure they must follow to obtain permits for new technologies,



and there are always bigger delays than expected," says Bernardo Pollak, CEO and Founder of Meristem. "For this reason, our main comment at the instance was that, in order to innovate and not to fall behind in industry competitiveness, it is important that communication with the regulatory agency be very transparent and collaborative."

Carlos Orellana, head of the livestock division at SAG, says the workshop was a good opportunity to build a more fluid relationship with the innovation ecosystem. "SOFOFA Hub's CBT can carry out an important role in articulating with startups. On the one hand, they can encourage that regulatory organizations be contemplated in the development of innovation from the beginning. On the other, they can organize joint activities to fill the communication gaps between public services and the new technologies in development," he states.



# CBT: A Relevant Project for Chile's Productive Development

**NICOLE EHRENFELD**

Acting Assistant Director of Centers and Associative Research National Agency for Research and Development (ANID).



“At present, the National Agency for Research and Development (ANID) supports over 70 centers, in diverse topics and disciplines, since, as a public agency, we seek to promote, incentivize, and develop research in Chile, in all areas of knowledge. Among these, biotechnology is an extremely important branch in the country's productive development.”

In our view, CBT is a positively relevant and innovative project, as it links science- technology-based entrepreneurship with the productive sector and with academia. Many times, languages and timeframes in industry and academia do not coincide, but generating these spaces to come together is part of the CBT core. Likewise, within ANID, we look favorably on both institutions strengthening one another.

Among the CBT initiatives, we highlight CBT Patagonia, based in Puerto Varas, with whom we met recently. Furthermore, they are strategic partners of the Patagonia Biotech Hub, an example of decentralization with

great potential for biotechnology, which is applicable in all sorts of local and national industries, to develop new products. Also worth noting are the acceleration and support programs for biotech startups, which promote the creation of businesses with a high regional and global impact. Establishing ties between academia and strategic sectors, such as agriculture, health, mining, and energy, is a necessary effort, to invigorate an optimum productive relationship. In that sense, CBT facilitates spaces to come together, and to adopt innovative technologies, promoting collaboration and advancement.

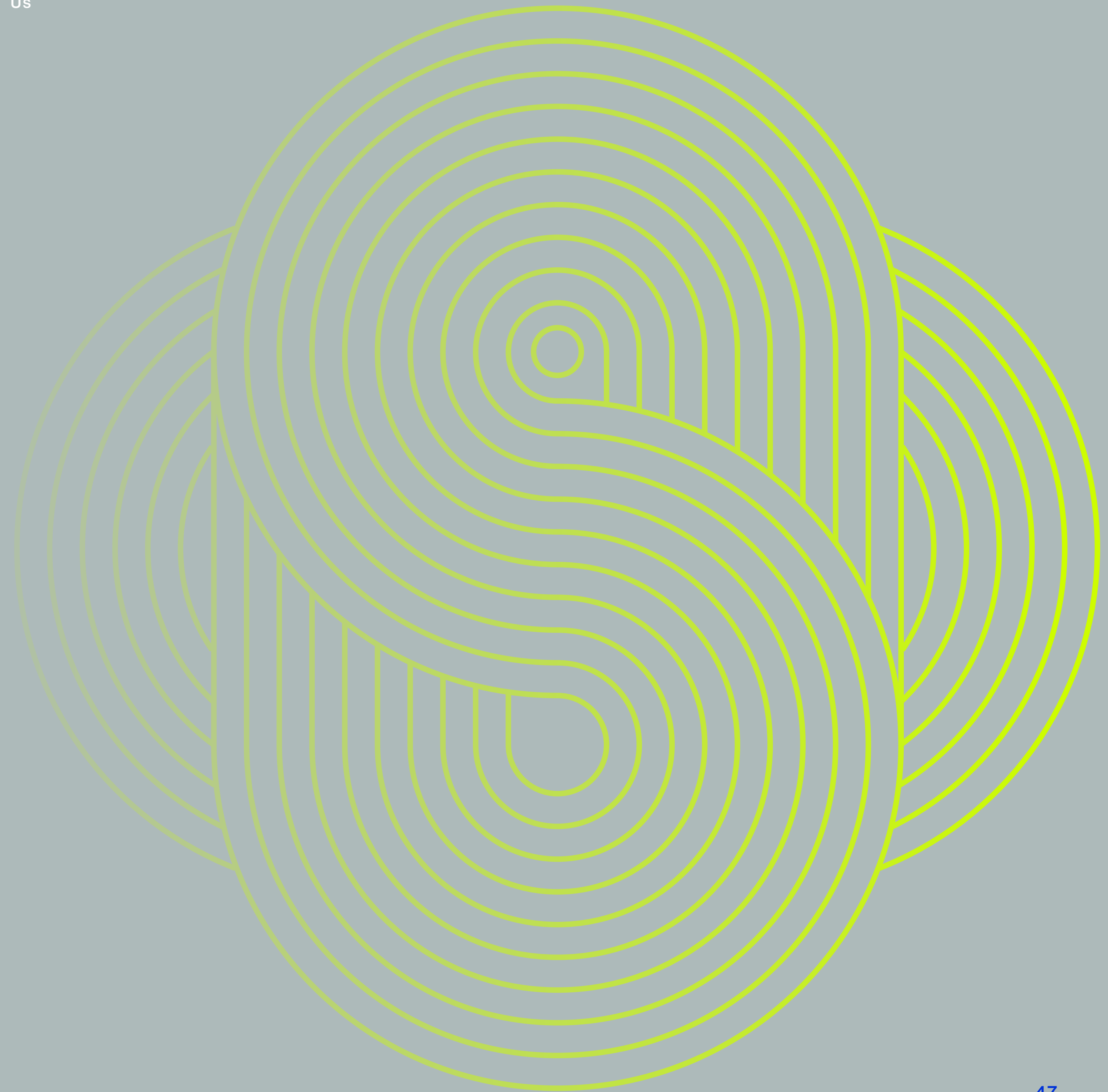
As ANID, we hope CBT will be a leader in biotechnology, generating development in processes, products, services, and entrepreneurship, so that proposed solutions arrive to market and impact the entire country, and also at the global level.”

“Establishing ties between academia and strategic sectors, such as agriculture, health, mining, and energy, is a necessary effort, to invigorate an optimum productive relationship. In that sense, CBT facilitates spaces to come together, and to adopt innovative technologies, promoting collaboration and advancement.”



# VENTURE CLIENT

As part of the 4<sup>th</sup> and 5<sup>th</sup> cycles in Venture Client SOFOFA Hub, we received proposals from 29 countries, to solve 13 Chilean company challenges. After a careful evaluation process, work has begun on the first projects, linking Chile with the best talent in the world.





COUNTRIES OF ORIGIN  
OF VENTURE CLIENT  
SOFOFA HUB 2024  
TECHNOLOGICAL  
SOLUTIONS

- Chile

Brazil

Jamaica

Colombia

Canada

United States

Mexico

Barbados

Guatemala

Peru

Argentina

South Africa

Australia

China

Israel
- Austria

Switzerland

Belgium

Sweden

Italy

United Kingdom

Denmark

Czech Republic

Spain

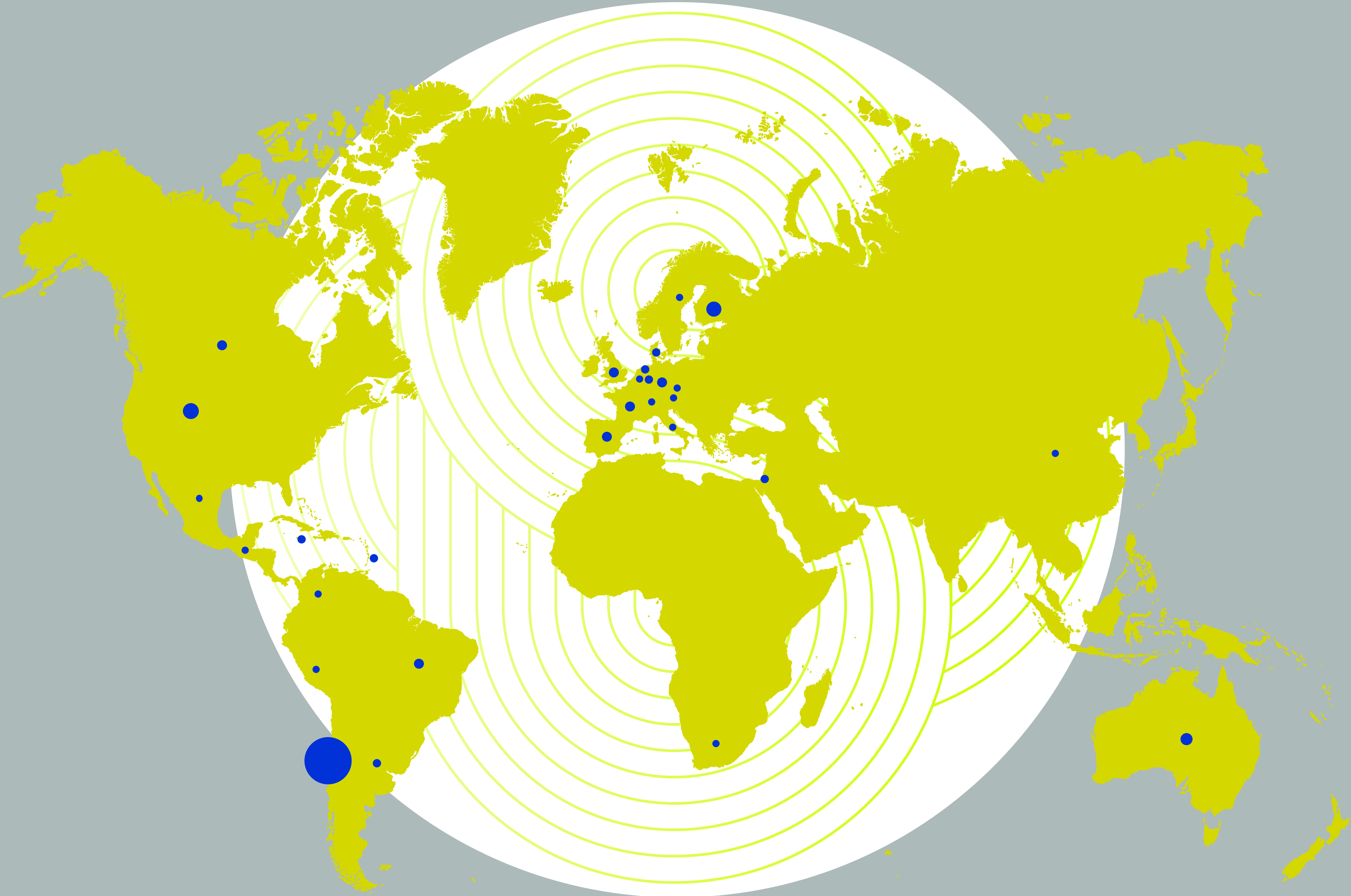
France

Netherlands

Germany

Finland

Luxembourg





3 years in  
Venture Client  
SOFIFA Hub  
since program inception in 2020

26  
technological  
tests  
initiated

37  
participating  
countries

5  
cycles

23  
business  
challenges

10  
tests  
completed

328  
technological  
solutions  
evaluated



# Venture Client SOFIFA Hub 2024 Results

8

challenges  
published

29

countries of  
origin

2

cycles  
completed

13

challenges  
established

135

submissions  
received

4

demo  
days



# AN INSPIRING PROCESS

## MOLYMET

This year, the two challenges Moly met established for the Venture Client SOFOFA Hub calls were led by the innovation area at their Molynor subsidiary, a molybdenum plant in Mejillones, Antofagasta. “Participating in Venture Client has been inspiring. It was our first open innovation program, where we went out into the world to look for solutions to a problem,” says Hyiun Cabrera, Molynor’s Head of Innovation and Process Engineering.

To obtain their final product, molybdenum oxide -which has a variety of industrial applications, such as manufacturing steel that is more resistant-, Moly met takes copper extraction byproducts and puts them through cleaning and roasting processes. The first semester challenge was to find technology to measure liquid samples online, to get automatized readings, with results every half-an-hour.

Despite the complexity of the requirement, during SOFOFA Hub’s recruitment process, 11 domestic and foreign companies applied. Currently, Molynor is in conversations and in confidentiality agreements with four startups from Finland and Chile. “Without the Venture Client SOFOFA Hub program, we wouldn’t have found these providers. This technology will help us adjust our operational parameters, diminish raw material consump-

tion, and improve the quality of our final product,” says Hyiun Cabrera.

The challenge for the second semester also centered on operational control. Molynor has a 14-story oven, where molybdenite is submitted to high temperatures until it becomes oxidized, thus obtaining the final product: molybdenum oxide. This process is controlled by a team of operators that opens a hatch and observes the product’s level of oxidation. From here, the challenge emerged to integrate technology that measures temperature internally and adjusts the oven’s airflow automatically. 16 innovative proposals arrived for this call, from countries including Luxembourg, Austria, Spain, and Chile. The Molynor team is in conversations with some of these startups to do a proof of concept.

## CHALLENGES

- Online liquid sample analysis.
- Automated temperature control for molybdenum roasting oven.





# VALUABLE FIELD WORK

## CMPC

For CMPC, the first challenge chosen in 2024 was as complex as it was urgent: optimizing the transport from harvest sites at forests in the Biobío and La Araucanía regions, to their wood and cellulose plants. They decided to seek out technological solutions that offer algorithm-powered optimization models that could make the entire process more efficient, from assignment to the dynamic adjustment throughout the day, as obstacles appear.

Mariana Thielemann, who leads the program at SOFOFA Hub, worked with the transportation team at the Forests business unit in CMPC. The objective was to adapt to each day's varying conditions, instead of only working with the plan envisioned the day before. Sebastián Corthorn, Head of Open Innovation at CMPC, recognizes it was a hard challenge to solve, as it was very dynamic and changing. "The excellent field work that SOFOFA Hub carries out allows everyone to profoundly understand which are the requirements and real problems we want to tackle, before going out to find solutions."

Scouting resulted in a splendid call: 29 companies, from 13 countries, applied. CMPC studied proposals from

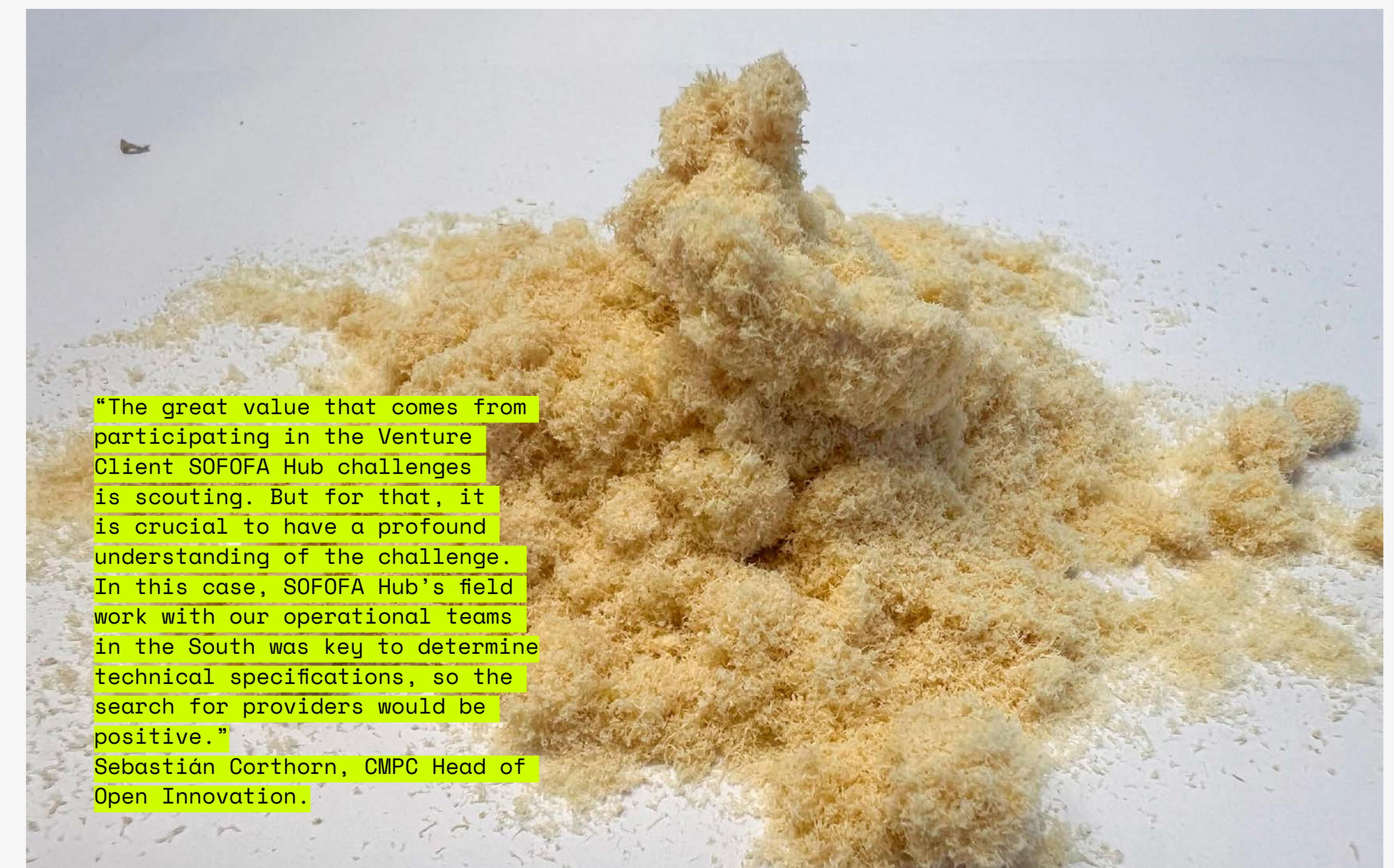
three startups with experience in the forestry industry. "The global scouting process opened an entire range of possible solutions, allowing us to identify startups that have technologies with great potential," Corthorn says.

The challenge for the second semester was more specific and midterm. CMPC wanted to explore possible commercial uses for sawdust at the Mininco plant, in La Araucanía Region, to use in new products such as bioplastics. The problem is sawdust comes out at such low density (more than 70% air), its transport from Mininco to Santiago was too expensive. They needed compaction technology to make the material denser for efficient transport. During the scouting process, 13 international proposals were received, from countries such as China, Finland, and Israel. At present, CMPC is in conversations to develop pilot programs for some of these alternatives.

## CHALLENGES

–Optimizing transport logistics between forests and processing plants.

–Developing technologies for sawdust compaction.



"The great value that comes from participating in the Venture Client SOFOFA Hub challenges is scouting. But for that, it is crucial to have a profound understanding of the challenge. In this case, SOFOFA Hub's field work with our operational teams in the South was key to determine technical specifications, so the search for providers would be positive." Sebastián Corthorn, CMPC Head of Open Innovation.



# GOING BEYOND THE TRADITIONAL PROCESS

## PUCOBRE

Reducing and controlling particulate matter at their plants is a priority objective for Pucobre's sustainability strategy. For this reason, the Venture Client SOFOFA Hub 2024 call centered around technological solutions to monitor and minimize emissions in their operations at the San José plant, in Atacama Region.

The scouting process produced great results. Applications were received from 24 startups, from countries such as Chile, Australia, Guatemala, United States, and South Africa, with diverse and novel technologies, including equipment with sensors, nanoparticles, and dust suppressing additives.

The first company they chose to do a proof of concept was the Australian startup Evirosuite. They presented monitoring and modeling technology that helps to control particulate matter emissions, keeping them within the standard. "This is very interesting technology, and we are very happy to be able to implement it, as it will provide a necessary measuring tool to control and diminish particulate matter emissions to a minimum," affirms Felipe Ugarte, Strategic Planning Manager at Pucobre.

They are also studying solutions from three other

companies, which focus on diminishing dust, using mechanical elements or via nanoparticles that capture these particles. These require extensive and expensive testing, so Pucobre will continue evaluating these proposals' great potential.

"The Venture Client SOFOFA Hub program helped us see there are opportunities for solutions that lie beyond what we could find with a traditional process and with providers we already knew in the mining sector, especially when there is a structured and collaborative program with other companies, as SOFOFA Hub's instance is." Felipe Ugarte, Strategic Planning Manager at Pucobre.

## CHALLENGE

–Developing technology to minimize particulate matter at mineral processing plants.





# THE CHALLENGE OF CAPTURING MARINE ENERGY

## SQM NITRATOS YODO

In 2024, SQM Yodo Nutrición Vegetal came on board the Venture Client SOFOFA Hub program, with the objective of finding solutions to two energy related challenges. The first one sought to recover the heat that dissipates in the nitrate drying process, to capture this heat energy and reinject it into the system, decreasing fuel use at the Coya Sur industrial plant. Eight highly innovative proposals arrived from Chile, Finland, Germany, Netherlands, and Belgium. Once the best candidates were identified, the proposals were analyzed by the company's operations and technical management areas.

In fine tuning with the technical areas, new challenges arose, such as how corrosive some of the nitrate salts can be on certain materials used in heat exchangers. Currently, they are studying filter alternatives with different providers, to adopt the proposals to the plant's specific complexities.

The second challenge, which was addressed during the second semester, was to find alternative energy sources to supply power to the SQM port in Tocopilla,

from where they ship their nitrate products. An idea that had been floating around for years at the company was to take advantage of the force of the port's powerful waves. They were looking for a partner to carry out joint development that would adapt to the bay's geography and ecosystem.

During the global scouting process, 21 proposals, from 13 countries, to capture the sea's kinetic energy were submitted. "We were surprised to find technologies that were much more disruptive than those we had contemplated, and which compete with photovoltaic panels in terms of capture capacity. It would have been very hard to arrive at them without the program's support," maintains Ignacio Majluf, Management and Sustainability Manager at SQM Yodo Nutrición Vegetal.

Next, the company's sustainability area, together with the SOFOFA Hub team, handed over project leadership to the areas of port operations and maintenance. "Involving them was fundamental, as it generated a sense of belonging with the project. They filtered the proposals and later transferred the specifications to the

## CHALLENGES

–Energy recovery at the Coya Sur industrial plant, in Antofagasta.

–Searching for renewable alternative energies to increase sustainability at the Tocopilla port.

chosen startups, to design solutions," Majluf affirms.

This challenge is now in technical analysis, to quantify the internal energy potential, and to estimate how much energy they could capture from the sea, to use in their operations.

"Working with SOFOFA Hub in this process was like working with a trusted partner, one who heard us, understood our needs, and established opportunities to improve our processes." Ignacio Majluf, Management and Sustainability Manager at SQM Nitratos Yodo.





# AN INNOVATIVE VISION TO LOOK FOR SOLUTIONS

## AGROSUPER

One of the essential standards in a food company is safety. Hand in hand with that requirement is the cleanliness of its processing areas. This was the priority issue for Agrosuper’s 2024 Venture Client challenge: to automate cleaning with technological solutions at its industrial Sopraval plant, located in the community of La Calera.

One of the objectives was to make this process more efficient in terms of timeframes, while generating a higher standard. “SOFOFA Hub was a great partner in this project because they provided a structure and a vision on efficiency, to select solutions that were really in line with our objective. They were a great contribution in order to connect with new companies and innovative ideas,” explains Rodrigo Abarzúa, Agrosuper Plant Manager and challenge sponsor.

During the scouting process, ten proposals were presented, from companies in Chile, United States, Brazil, and Finland. Some of the solutions impressed the team with their cutting-edge technology, such as a Finnish robot vehicle that cleaned plant exteriors.

Finally, Agrosuper decided to develop pilot programs with two Chilean companies that contribute value to dif-

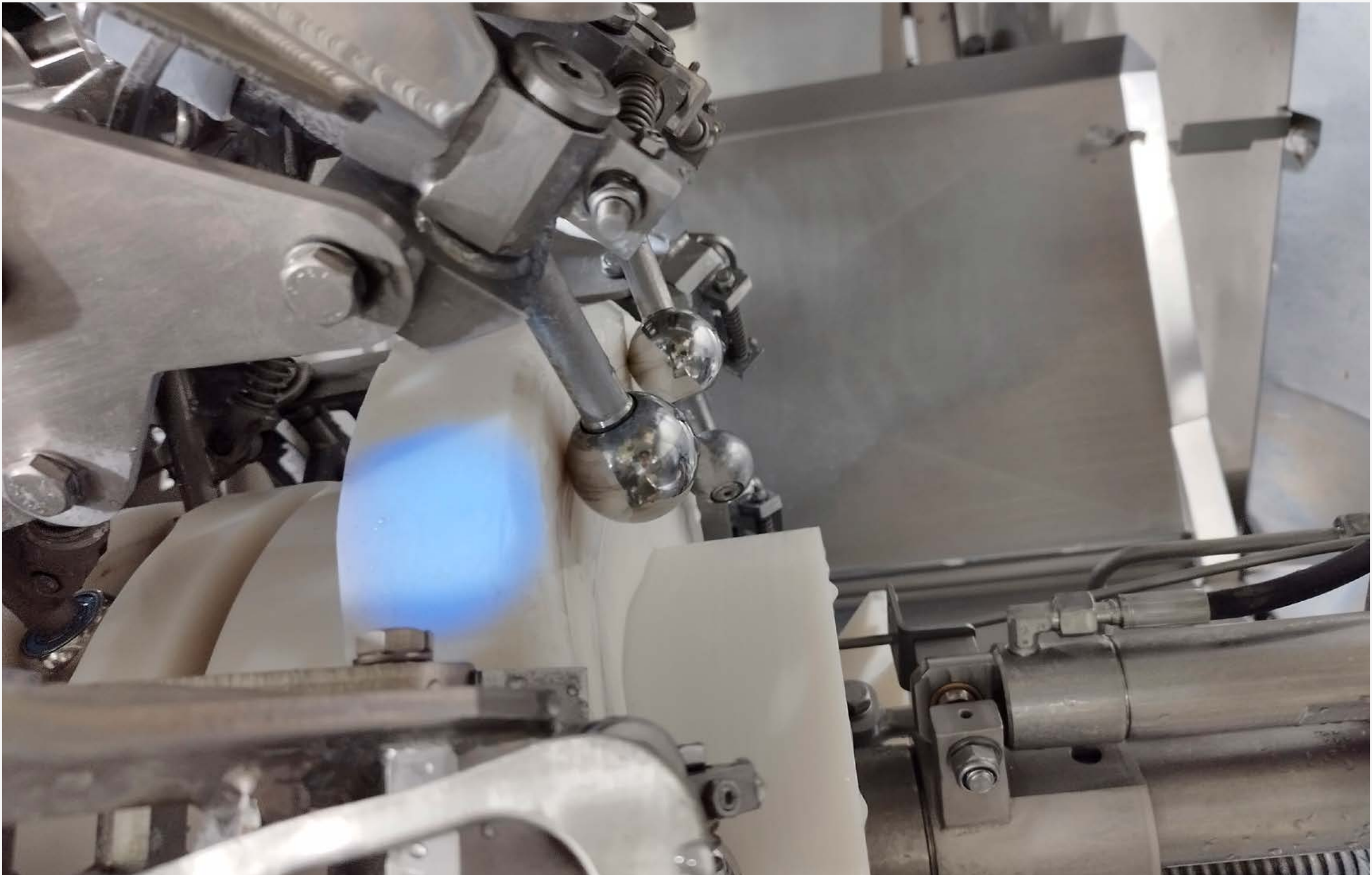
ferent stages in the cleaning process, and which are adaptable to plant operations. One of these is Kahuel, which utilizes a forensics technique with ultraviolet lights to detect microorganisms, which allows online cleaning assessment in all plant areas.

The second selected startup was Sanimac and their technology which uses high pressure vapor to clean surfaces. “It has been a very successful challenge to work with these two companies, through these pilot programs, which will become work methodology projects and a cleaning process standard at Sopraval, which in the future could be applied at other company plants,” Rodrigo Abarzúa adds.

“During the process with Venture Client SOFOFA Hub, we had a very good working relationship with the professionals at SOFOFA Hub. They contributed a broader innovative vision of how a problem can be solved within industry.”  
Rodrigo Abarzúa,  
Agrosuper Plant Manager.

### CHALLENGE

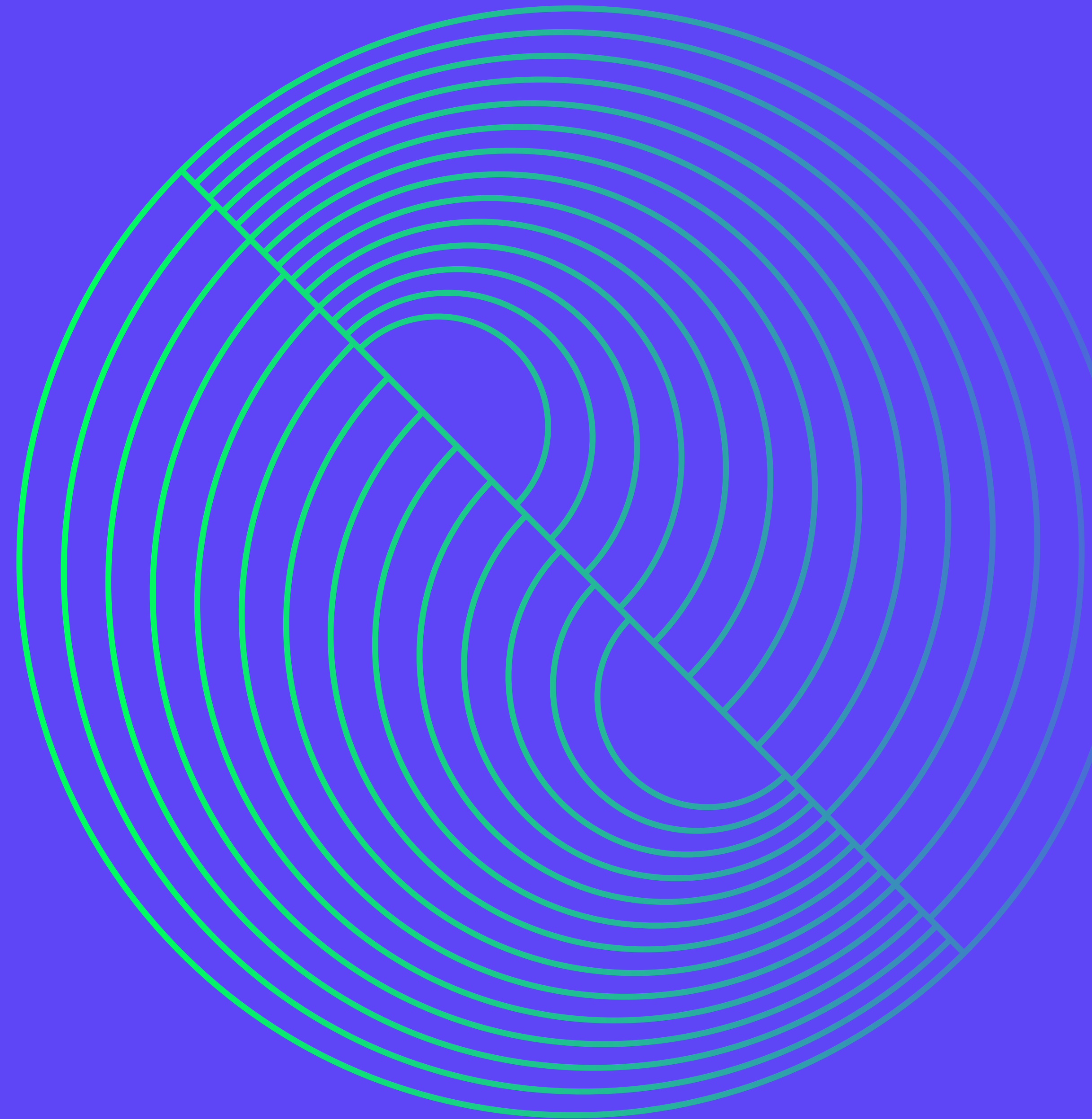
–Technological solutions to optimize industrial cleaning processes at plants.





# TERRITORIO CIRCULAR

In 2024, we went around the country to continue providing inspiration about the power of circular economy. We also celebrated the second edition of our Territorio Circular Award and created our first roadmap, among other advances.





# WE CREATED A ROADMAP

For the first time, Territorio Circular created our own roadmap for the 2025-2030 period, an effort that sought to give the program an enhanced focus. This process was led by the consultancy Colaboración Estratégica, and through workshops and interviews, it brought together actors from the public, private, and academic sectors, along with the civil society. The visions we gathered allowed us to identify Territorio Circular’s main pillars of action and to define the productive sectors the agenda would prioritize.

Until then, the reference point for Territorio Circular was the Roadmap for a Circular Chile by 2040. Creating this new document was in response to the need for addressing the program’s challenges and priorities in a more specific way.

## PRODUCTIVE SECTORS PRIORITIZED

Mining  
Agrifood  
Agriculture

“This roadmap is highly relevant, as it allows Territorio Circular to have a clearer focus, after an initial installing period, in which the guiding instrument was too broad. This document provides the program with greater strength for its next period.”

Tomás Saieg, Head of the Circular Economy Office at the Ministry of the Environment and President of the Territorio Circular program’s Executive Committee.

## MAIN LINES OF ACTION:

### DEVELOP ENABLING CONDITIONS FOR CIRCULAR ECONOMY:

Identify and mobilize resources that facilitate the consolidation of a circular economy ecosystem.

### STRENGTHENING INDUSTRIAL SYMBIOSIS HUBS:

Articulate companies and industrial sectors from different territories to share resources, materials, energy, and infrastructure.

### PROMOTE CIRCULAR INNOVATION::

Research and develop new products, processes, services, and technologies that drive circular economy innovation.



# NETWORK ANALYSIS

## CIRCULAR ECOSYSTEM MAP

Out of the collaboration between Territorio Circular and academic Andrés Marín Ricke, PhD at the Center for Regional Development and Public Policy Studies from Universidad de Los Lagos, a pioneering research project was born. Utilizing the focus and methodology of Social Network Analysis (SNA), it mapped and analyzed the ecosystem Territorio Circular articulated, gathered information about the program's actions, and displayed the types of actors involved. The surprising result is a register of the entire program run, along with the interactions the team has had since its inception.

## PENDING CHALLENGES: A WORLD WITHOUT TERRITORIO CIRCULAR

The analysis let us identify an important number of actors that would remain isolated from the ecosystem by the end of Territorio Circular's execution period in 2030. Although the map gives an account of its role as articulator, the challenge is to generate more connections, so the network will survive without the need for Territorio Circular.

## THE CIRCULAR ECOSYSTEM

Players in the public, private, and academic sectors, and in civil society:

2022 → 91

2024 → 372

During the program's first three years, there was a strong connection with the public sector that allowed us to reach regions, through actors that led the process of creating the Roadmap for a Circular Chile by 2024.

"The diagram shows that, three years after its inception, the program has positioned itself in the territories, it has constructed collaboration networks, and has strengthened its social capital with key players in the private world, academia, and civil society, in accordance with the quadruple helix model for development and innovation."

Marianela Rosas, Circular Economy Monitoring and Follow-up Coordinator at SOFOFA Hub.



## DASHBOARD 2.0

The SOFOFA Hub dashboard is a digital monitoring tool created to display progress in actions along the Roadmap for a Circular Chile by 2040. Its objective was to shed light on the country's efforts on its transition to a new production and consumption model.

In its third version, it incorporated a management system that optimizes interaction with the user and their experience. This allows traceability of modifications and advances in circular projects -which at present are more than 350-, giving the platform enhanced transparency.

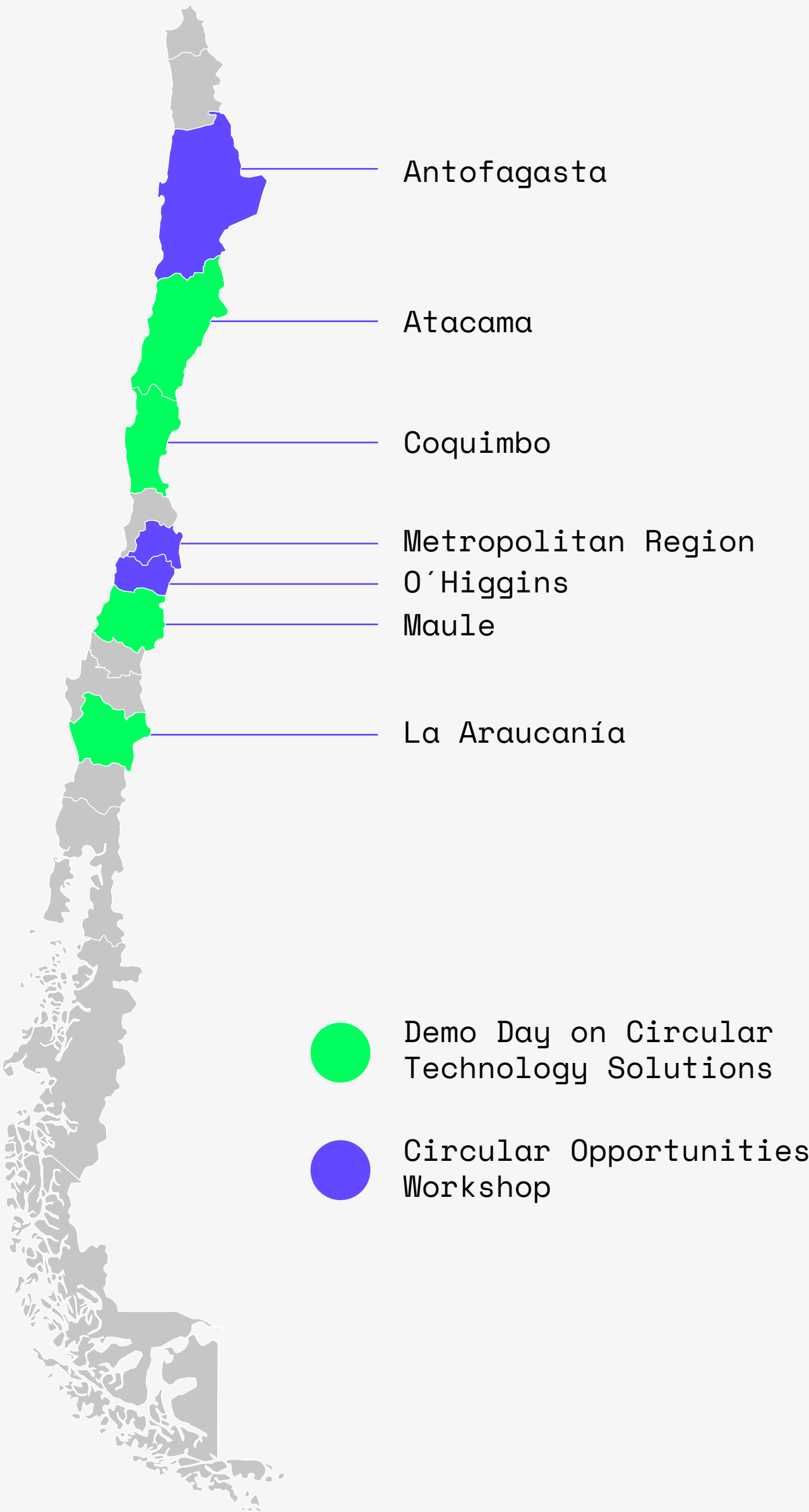
"Before, administrators worked on Excel and received updates by mail. Today, we have a self-reporting tool that enables us to actively monitor users and content, constantly improving its functioning. The next challenge will be to automate processes with AI, a distant but possible objective."

Marianela Rosas, SOFOFA Hub's Circular Economy Monitoring and Follow-up Coordinator.

Since its implementation in 2022, dashboard use has increased significantly, with a growth of more than 300% in the last assessed trimester.



# REGIONS WITH CIRCULAR ECONOMY WORKSHOPS AND DEMO DAYS IN 2024



## Demo day: Aware and in action

This year, we carried out three Demo Days on circular technology solutions -in O'Higgins, Antofagasta, and the Metropolitan Region-, where startups from each region presented solutions to company needs that had been previously identified in the Circular Opportunities Workshop.



# A 4.0 INDUSTRY FOR EL MAULE

With the objective of strengthening competitiveness and facing challenges such as natural resource scarcity, Territorio Circular, together with G100 –made up of corporates and entrepreneurs–, organized the event Acelera Circular: Promoting the 4.0 agriculture ecosystem in Maule Region.

The objective of the call, financed by the Viraliza CORFO program, was to strengthen an entrepreneurship ecosystem around 4.0 technology by training local entrepreneurs. This opens a window into the future, so that Maule can become a world-class food power.



The economy in Maule Region is based on the forestry, agriculture, and livestock sectors, which contribute over 32% of the gross regional domestic product.

## ACELERA CIRCULAR

Place: Universidad de Talca

30 entrepreneurs together with experts in the area

+

Conversation and learning through discussion forums

+

A workshop about circular business models

+

Three international keynote lectures

A 4.0 industry, based on industrial digital technology, can be the solution to increase efficiency and sustainability in this productive sector.



# NADA NOS DETIENE

## AN ENTREPRENEURSHIP COMPETITION

The event culminated with the final in the innovation championship Nada Nos Detiene (Nothing Can Stop US), driven by the G100, which featured pitches from all 30 entrepreneurs. Three award winners were selected and for the first time, the prize was not in cash, but a week’s internship in the Spanish company Eurecat, a benchmark technology center in innovation challenges.

“SOF0FA Hub was part of the entire process, from the call -disseminated through its social media outlets- through startup training, to the judges’ decision. Having a committed partner is highly valuable, because this contest changes entrepreneurs’ lives. It was a very meaningful collaboration.”

Isidora Pérez, NND Director of Topical and Regional Championships

# THE THREE AWARD-WINNERS

## MARÍA, MOTHER OF ALL WATERING

The company GOTA developed MARIA, an automated AI-powered watering model, which, through sensors, indicates when and how much to water, optimizing efficiency in water use.

### WHAT ARE YOU BRINGING BACK TO CHILE IN YOUR SUITCASE?

“The facilities we visited were out of this world. I took advantage of the trip and stayed three months in Spain, learning and generating contacts. In fact, we are launching a prototype, together with Eurecat. We conducted the tests out there, to see what needs they could cover; it was a really beneficial process.”

Eduardo Pérez,  
General Manager at GOTA

## I LIKE WINE BECAUSE IT’S SUSTAINABLE

At Trongkai, nothing is wasted. Their mission is to combat the current climate emergency, making food products from grape pomace, an agro-industrial byproduct of wine fermentation.

### WHAT ARE YOU BRINGING BACK TO CHILE IN YOUR SUITCASE?

“To me, everything was very interesting; I brought much technical and technological knowledge. But above all else, I broadened my contact network. Now, I’m certain I can get in touch with great professionals, on the other end of the world. I made great human and professional connections.”

José Cuevas, Founder and Executive  
Director at Trongkai

## THIRST FOR CHANGE

Neoriego started as a sustainable watering project for the wine industry. Today, their concept expanded to contribute solutions to drought-impacted goat breeding, with the creation of a drinking trough fed by air moisture.

### WHAT ARE YOU BRINGING BACK TO CHILE IN YOUR SUITCASE?

“Getting to know the Eurecat centers was enriching. They have an enormous staff of highly trained people. I came back with a great desire to do things. I hope to ground these ideas and to have the support of the contacts I made during the internship.”

Emanuel Saavedra, Executive Director at Neoriego





# OUR GOOD PRACTICES GUIDE

We updated our Practical Guide for Circular Business Management, a document that gathers new industrial experiences that inspire circular action in Chile. Its launch marked a new landmark at SOFOFA, in compliance with the Roadmap for a Circular Chile by 2040, promoting sustainable development with concrete cases.

“To make strides in the transition toward a circular economy, we must set up management practices that engender relevant, long-term impact. With the guide’s new edition, we want to identify and disseminate more instances of companies leading this necessary change in our country,” SOFOFA Hub’s Executive Director Alan García asserts.

This second edition featured valuable contributions by twelve large companies, from sectors such as mining, energy, food, and construction: CMPC, AngloAmerican, Collahuasi, IANSA, Colbún, Asfalcura, Enel, Sacyr, ME Elecmetal, Volta, Emiliana, and Tresmontes Lucchetti.

“Along with other large companies and corporations, and under the SOFOFA Hub and Territorio Circular focus, we proved it is possible to work together, to be more efficient and create value, in an era of profound changes in economic, social, and environmental development, where collaboration is key,” said Constanza Echeverría, Global Sustainability Director at ME Elecmetal.



# WE CELEBRATED THE SECOND EDITION OF THE TERRITORIO CIRCULAR AWARD

November saw the award ceremony of the second Territorio Circular Award, at the panoramic roof of Mercado Urbano Tobalaba (MUT), with over 200 people in attendance. During the afternoon, six Chilean companies -large, medium-sized, and small- received distinctions for developing circular solutions with an impact in their territories. Two categories were awarded: emerging solutions and consolidated solutions. There were two inspiring talks by Dominga Quiroga, from Territoria (MUT), and Ronald Sistek, a consultant specializing in organizational regeneration.





# MUT, THE CEREMONY'S AWARD-WINNING VENUE

## DOMINGA QUIROGA

### Head of Marketing at Territoria | MUT

In 2023, Territoria –and their project Mercado Urbano Tobalaba (MUT)– collected the Territorio Circular Award in the medium- and large-sized company categories, for promoting recycling, reducing use of natural resources, saving energy, and utilizing clean energy sources. In 2024, MUT got more involved in the award and became the venue for the ceremony.



“It was amazing to see that throughout the country, people are carrying out projects, initiatives, and solutions that are so innovative, and I loved that it covered such different industries and initiatives. This speaks to a country that is moving forward, from very different standpoints and perspectives.”



For MUT, sustainability is a vision inspired in building a better world, instead of simply complying with some public mitigation. In the Americas, MUT holds one of the highest LEED ratings for sustainable buildings.





“The paradigm under which we operate, which posits that we can grow infinitely in a finite planet, has its days numbered. It is not sustainable. We must adopt a vision that engenders more life and resignifies organizational purposes, supply chains, business models, toward ones that are fundamentally regenerative. This implies transforming our companies to promote and experience vitality, integrity, health, and beauty, in every system they integrate.”

Ronald Sistek, Consultant, Researcher, and Founder of CO Consulting (Coherencia Organizacional)

## AWARD-WINNERS, EMERGING SOLUTION CATEGORY

### AYSÉN RECIRCULAR, FROM PROBLEMATIC WASTE TO SUSTAINABLE OPTION

Aysén Recircular found an opportunity in Styrofoam, or polystyrene, a highly polluting material used in the salmon farming industry and that tends to end up at landfills. The company transforms this waste into a sustainable solution for construction, making SIP panels, certified by the Ministry of Housing, while at the same time, creating local jobs. Their goal is to become a competitive option in the social housing market, to improve the quality of life of communities with extreme weather conditions in the region.

Aysén Recircular construction panels based on polystyrene improve thermal efficiency, allowing for up to a 60% savings in heating.

### VOLTA, NEW LIFE FOR AGRICULTURAL SOIL

Volta company found a local solution to mitigate the neglected soil in the Til Til area, in the Metropolitan Region. Every day, using a biodigestion technique, they convert more than 50 cubic meters of digestate -and agro-industrial waste- into natural fertilizer that improves soil structure and enhances its capacity to retain water in 15%. Furthermore, the RilsaGrow fertilizer, boasting high content of stabilized organic matter and nutrients, reduces the use of chemical fertilizers, which represent 60% of agricultural costs.

Using this alternative reduces greenhouse gas emissions in 97%.

### SALFA CONSTRUCTION, LIGHTER AND MORE ECO-FRIENDLY WALLS

Punta Arenas has one of the biggest per capita waste generation indices in the country. Salfa held on to that notion, when they detected their prefabricated concrete elements, like fencing, exceeded the maximum handling weight permitted by law for their work crews. For this reason, they decided to include plastic revaluation in their productive process, and they started to manufacture concrete fencing mixed with PET 1 waste. This brought structural weight down, protecting their workers' health, and reducing their carbon footprint, as it requires less stone material to manufacture.

For fencing manufacture, they reuse 8000 plastic bottles a day, which will not end in landfills.





“This award is a great push forward. When you know that, from outside, they are looking and recognizing you, it is as if they are saying: ‘you are on the right track.’”

Fernando Soto Aguilar, Aysén Recircular Cofounder.

“What pride to see that, with our product RilsaGrow, people are growing prickly pears and olives and strengthening livestock in Santiago’s northern limits, an area that has been so impacted by drought.”

Diego Bulnes, General Manager at Volta.

“This benefits the workers directly. There’s the great additional benefit in waste management, not only our own, but from Punta Arenas, and the Magallanes Region. We are positioned in the whole zone to collect bottles.”

Patricia Donoso, Constructora Salta’s Head of Quality.



## AWARD-WINNERS, CONSOLIDATED SOLUTION CATEGORY

### ECOTURBO, SUSTAINABLE HEAT FOR CHILE

Thorhauss, a company that develops technology to optimize biomass and combustion processes, designed an innovative device that optimizes the use of firewood in slow combustion heaters, allowing savings of 50% in consumption. Their EcoTurbo already has 3000 users, from Copiapó to Tierra del Fuego, reducing pollution in many cities across Chile, decreasing resource extraction, and minimizing waste.

EcoTurbo use diminishes  
CO2 emissions by half.

### FREEMET, A UNIQUE CONTAINER IN THE WORLD

At Freemet, they had one objective: they didn't just want to create a detergent that wouldn't harm the planet's water; they wanted to sell it in containers made entirely from buoys recovered from the Patagonia Sea. Finally, and thanks to a collaboration with two Chilean companies committed to sustainability—Atando Cabos and Beluxa—, they created Boya, a container that is unique in the world. Not only is it 100% made from material recycled from the ocean, but it is reusable, returnable, and recyclable. “We are proud to receive an award from Territorio Circular that brings transparency and visibility to sustainability in mass consumption,” articulates Carolina Urrutia, Cofounder and R+D Director at Freemet.

Manufacturing them involves  
55% fewer kilograms of CO2,  
compared to containers made  
from virgin materials.

### PRONTO COPEC THE MOST CIRCULAR EGGS

Over the last few years, Copec has been working with Food for Future and Coliumo, to give new life to organic waste from 39 of their stores. At these locations, they separate their organic waste into specific containers. They take it to Food for Future, a Chilean startup that uses it to feed black soldier fly larvae, which are later transformed, through an industrial process, into high nutritional quality flour. At Coliumo, Copec's egg provider, they use this flour to feed their chickens. Their eggs will later arrive at the store kitchens, giving life to a truly inspiring virtuous circle.

This project has avoided  
emissions of almost 1,000  
tons of CO2.

The second edition of the Territorio Circular Award, pushed forward by the Ministry of the Environment and CORFO, featured collaboration with the Ellen MacArthur Foundation, renowned as a benchmark in circularity criteria and in the promotion of a more efficient, collaborative, and sustainable model for the country.





“Ecolurbo was born out of the necessity of cleaning the air in our cities from particulate matter. With this device, we improve people’s quality of life.”

Thomas Schmidt, Commercial Manager at Thorhauss.



“The Boya container is wonderful because it shows that it is possible to have circular economy in mass consumption in Chile.”

Carolina Urrutia, Cofounder and R+D Director at Freemet.



“This award is a great landmark for our company. It is our first award in sustainability and it reflects the collaborative effort of many years.”

Maria José Subercaseaux, Pronto Copec’s Assistant Manager of Sustainability.



Javier Obach  
Territorio Circular  
Program Manager

Fernando Soto-Aguilar  
Aysén Recircular

Thomas Schmidt  
EcoTurbo

María José López  
Pronto Copec

María José Subercaseaux  
Pronto Copec

Michel Compagnon  
Commercial Manager  
at Comberplast

Carolina Urrutia  
Freemet

Estephanie González  
Volta

Patricia Donoso  
Salfa

Sergio Ojeda Villegas  
Salfa

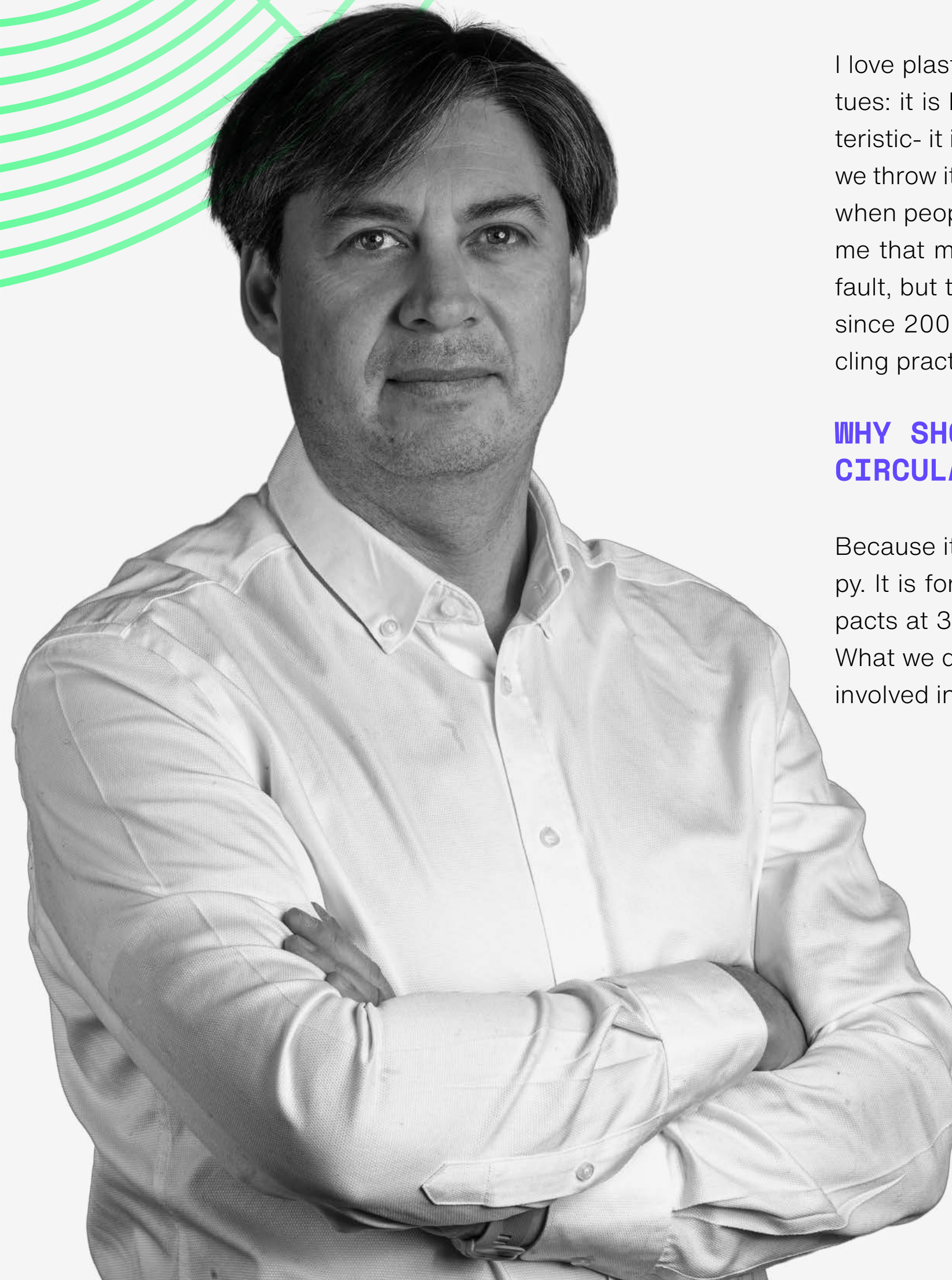


## A recycler in love with plastic

**MICHEL COMPAGNON**  
Commercial Manager  
at Comberplast

Michel Compagnon has devoted his career to a material that gets bad press: plastic. Today, he is President of the Chilean Plastic Industry Trade Union (Asociación Gremial de Industriales del Plástico de Chile - ASIPLA), and for the last 25 years, he works as Commercial Manager at Comberplast, a company with almost 50 years' experience, recognized for their leadership in promoting circular economy in industry. Comberplast recovers over 6000 tons of plastic waste yearly, which it then transforms into pellets to manufacture new products.

He is also the driving force behind Atando Cabos, an innovative program that recycles and reutilizes rope, buoys, and netting used by Patagonia fishermen, contributing to environmental sustainability.



### WHAT MADE YOU TURN TOWARDS A CIRCULAR ECONOMY MODEL AT COMBERPLAST?

I love plastic. It is a wonderful material, with infinite virtues: it is light, cheap, moldable, and -it's best characteristic- it is eternal; it does not biodegrade. So, why do we throw it out? My family is devoted to this industry, so, when people said that plastic pollutes, they were telling me that my family pollutes, and it is not the material's fault, but the person that throws it out. For this reason, since 2000, my brother and I started to focus on recycling practices and circular economy.

### WHY SHOULD A COMPANY INCORPORATE CIRCULAR ECONOMY?

Because it is a business, not environmental philanthropy. It is for profit but contrary to linear economy, it impacts at 3 levels: economic, social, and environmental. What we do at Atando Cabos is profitable for everyone involved in the value chain.

### WHY IS IT IMPORTANT FOR INSTITU- TIONS LIKE SOFOFA HUB TO PROMOTE THIS MODEL?

SOFOFA Hub turns dreams into businesses in demonstrating that this new economic model is profitable. If you go to SOFOFA Hub with a project, you don't have to navigate alone. They offer solutions. They have a broad array of contacts. They give entrepreneurs visibility and training. I love that they put so much thinking into each problem.

### MY DEFINITION OF CIRCULAR ECONOMY

“It is about decoupling economic growth from the extraction of natural resources, so that it is not associated with taking, using, and throwing out, but with taking and continuing to use,” says Michel Compagnon.



# US

Guillermo Badillo,  
Biobusiness Certificate  
Coordinator.

Andrea Guzmán,  
Communications Director.

Marianela Rosas, Circular  
Economy Monitoring and  
Follow-up Coordinator.

Javier Obach,  
Circular Economy Manager.

Javier Mora,  
Circular Initiatives  
Coordinator.

María José Monti,  
Outreach Activities Advisor.

Macarena Carrió,  
CBT Patagonia Director.

Flavio Llanos,  
Consultant.

Giovanni Cruz,  
Head of Administration and  
Finance.

Mariana Thielemann,  
Entrepreneurship Manager.

Florencia Undurraga,  
Head Attorney.

Gabriela Meneses,  
Administration and Finance  
Analyst.

Montserrat Roll,  
Project Lead.

Alan García,  
SOFIFA Hub  
Executive Director.

Tamara Sepúlveda,  
Head of Projects.

María Paz Merino,  
CBT Executive Director.



# GOVERNANCE MODEL

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- Edgar Pape
- Gonzalo Guerrero
- Sebastián Ríos
- Carolina Torrealba
- Álvaro Fisher
- Juan Manuel Santa Cruz

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- Cristián Meyer – Agrosuper
- Sebastián Ríos – Pucobre
- Ignacio Majluf - SQM
- Edgardo Cisternas - Molytmet
- Nicolás Uauy

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- Alan García
- Isaac Kohlberg (CTO Harvard)
- Eduardo Abeliuk (TeselaGen)
- Mauricio Cañoles (CBT Implementing Partner  
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- Rolando Chamy (CBT Implementing Partner  
Universities Representative)
- Nicolás Uauy

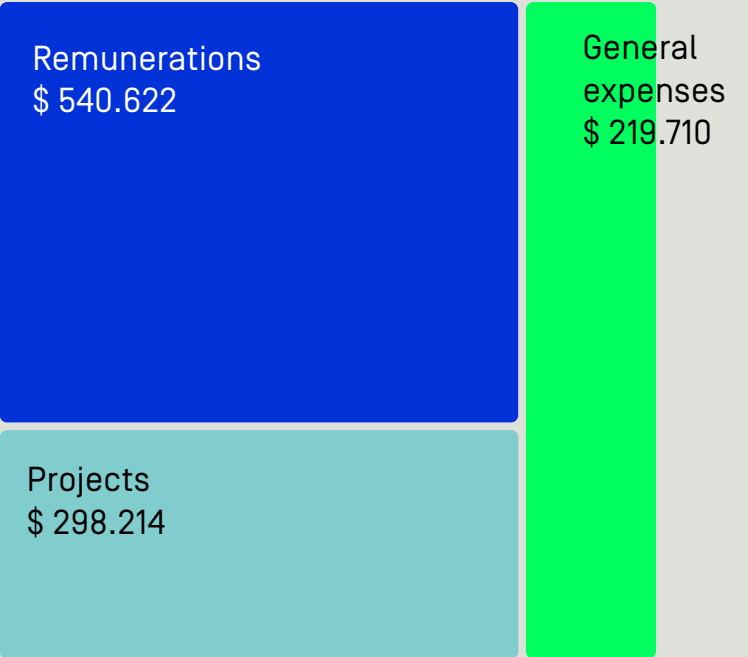


FUND USES AND  
APPLICATIONS

BY DECEMBER 31ST, 2024  
(FIGURES IN THOUSANDS OF CHILEAN CLP – M\$)



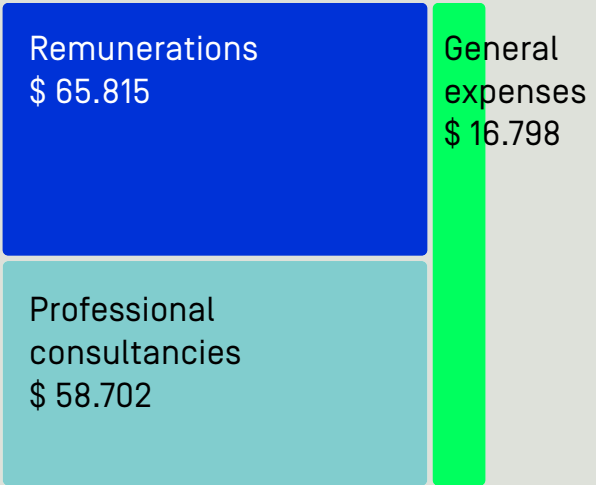
Public fund to account by 12/31/2023	\$ 1.761.872
Subsidy return	\$ -400.000
Public funds received during 2024	\$ 1.000.000
Project income	\$ 42.215
Total income	\$ 2.846.302
Total costs	\$ 975.041
Balance	\$ 1.871.261



2023 Balance	\$ 169.225
Membership income	\$ 304.619
Project income	\$ 90.486
Total income	\$ 564.330
Total costs	\$ 197.971
2024 balance	\$ 366.359



Public fund to account by 12/31/2023	\$ 1.570
Subsidy return	\$ -1.570
Public funds received during 2024	\$ 227.346
Project income	\$ 5.513
Total income	\$232.859
Total costs	\$ 141.315
Balance	\$ 91.544





# PARTNERSHIPS

SAG  
UDEC  
The Ganesha Lab  
Incubatec UFRO  
Hubtec  
Endeavor Chile  
Digital Innovation Hub INNOVATE  
UDD Ventures  
Incuba UdeC  
3IE UTFSM  
German Entrepreneurship/ Start 2  
Business France  
Ambivation  
MaRS Innovation District  
Chilemass  
Berlin Innovation Agency (BIA)  
INAM (Innovation Network for  
Advanced Materials)  
Minnovex  
Chile Nanotechnology Association  
Climatech Chile  
Bayern Innovativ  
Fiware Foundation  
AHK Chile

State of Bavaria Office for South America  
Canada Embassy  
Israel Embassy  
Israel Innovation Authority  
Business Finland  
CzechTrade  
Enterprise Singapore  
Australian Embassy in Chile (Austrade)  
Taram Capital  
Cube Ventures  
Mana Tech  
Mountain Partners  
ScaleX  
ACVC  
Austral Cap  
Dadneo  
Voima Ventures  
Pachamama Ventures  
Sonen Capital  
Simma Capital  
Savia Ventures  
Oikos  
Digevo  
Cibersons

Kayyak Ventures  
Antártica Ventures  
Broota  
Güil  
The Engine  
Wayra  
Columbia Global Center Stgo  
UC Innovation Center  
Startups Latam  
Impacta VC  
Navy Center for Technological Innovation  
SENAI Brasil  
NUAM Exchange  
AIE Asociación Industria Eléctrica  
APEX Brasil  
Ethos VC  
MITACS Canadá  
Monashees  
CIC Cambridge Innovation Center  
OpenBeauchef - FCFM/Universidad de Chile  
Taiwán  
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