

WOOD MADE

ISSUE 3

STORIES

JUNE 2021

SONAE ARAUCO WORLD STORIES



SUSTAINABILITY

Our investment in promoting forests and the contribution to the construction's sector reinvention

DIVERSITY

At 1,200 miles apart, two employees talk about their paths, motivations and challenges

PEDRO GADANHO

The architect creating a laboratory house to promote environmentally friendly construction and rehabilitation solutions

TRENDS

The house was transformed and is now (also) an office

Director
Joana Martins

Editorial Committee
Carolina Pinto
LLYC

Editorial
Rui Correia

Special Participation
Pedro Gadanho

Contributors
Adelaide Alves
Ana Bara
Andreas Schmitt
Camilo Morais
Daniela Celiker
Domingo Rodriguez
Frans Arnoldi
Gavin Burnhams
Hans-Robert Holzer
Inês Ribeiro
Jacqueline Flükiger
Jan Van Leperen
Joanne Ashton
Johan Engelbrecht
José António Rocha
Khuselo Makaula
Leonardo Porto
Lisa Main
Luís Baptista
Martin Loebs
Michelle Quintão
Nuno Calado
Nuno Carneiro
Nuno João Pinto
Steffen Körner
Susana Teixeira Cunha

Acknowledgments
Ana Fernandes
António Castro
Edite Barbosa
João Berger
Rui Correia

Title
Wood Made Stories
Sonae Arauco World Stories

Author
Sonae Arauco

Edition Number
3rd edition

Publisher
Sonae Arauco
Lugar do Espido
Via Norte, 4470-177 Maia
www.sonaearauco.com

Date of Publication
June 2021

Circulation
3.300

Design
Artur Sempere - SempereatWork

Printing & Finishing
Lidergraf - Artes Gráficas, SA

Translation
Lingfy

Legal Deposit:
455742/19

ISSN:
2184-5409



Table of contents



04
Editorial
The importance of reinvention in the year of all changes

Refresh

06
Overview
An unprecedented year: what we did and where we invested

10
Opinion
Edite Barbosa
The world changed. As did traditional work models

12
Featured Photography
One factory, two offices

15
Interview
Inês Ribeiro and Steffen Körner
An unlikely conversation

Wood Made Stories

21
In-depth Report
Valuing the forest to reinvent construction

31
Profile
Frans Arnoldi
A leader always serene

37
Destination (indoor version)
Travelling without getting off the couch

Future Made

42
Guest
Pedro Gadanho
The search for sustainability in architecture

48
Trends
Solutions to turn your home into the best office

Editorial

The importance of reinvention in the year of all changes

Rui Correia,
CEO Sonae Arauco

We are marking the fifth anniversary of Sonae Arauco, and we do so looking back at the year that has passed. And what a year! The Covid-19 pandemic took the world by surprise, calling into question everything we had taken for granted. We were forced to stay at home, physically far from some of the people we love most; we learned to live in a reality that is certainly not going to disappear completely anytime soon. I must admit that I never thought that we could face a similar crisis. However, I believe that our response – the response of each one of you – was exemplary. Thank you very much for your trust and dedication.

I would like to thank all the teams and recognise the hard work that has been done in a period of so much uncertainty. Thank you to those who remained at the forefront in all of our industrial units, some way risking your health and safety for a collective good. Thank you to those who have been working from home, and who have had to be able to re-adjust

routines, processes and relationships in such a short period of time. Thank you to all of you for your additional efforts in the face of a scenario where our activity has been temporarily reduced. It was your persistence, resilience and your team spirit that allowed our company to adapt at every turn – to reinvent itself without losing sight of its collective voice, continuing, despite the difficulties, its journey towards becoming the company of choice in our industry.

This is why Reinvention is the theme of the third edition of our magazine.

Since the beginning of the pandemic, Sonae Arauco's main priorities have been to guarantee the health and safety of all our people – always our main priority – and the sustainability of our business. We developed a contingency plan, which included the full adoption of the measures recommended by global and local health authorities. As a matter of fact, we placed even higher demands than those proposed.

We implemented numerous preventive measures, such as the definition of a new travel policy, the promotion of home office for functions that could be performed remotely and the creation of new rules and procedures, including reinforcing our personal protective equipment to mitigate the risk of infection. And we stayed focused on our vision: to create wood-based solutions for a better life, a better future and a better planet.

Sustainability is implicit in our vision, mission and strategy. To achieve it precisely, we launched a project with the aim of measuring our carbon footprint and then drawing up a plan with the goal of reaching carbon neutrality before 2040. We continue to aspire to be the company of choice for customers, employees, suppliers and other stakeholders. At our foundation, remains wood, a natural, renewable and recyclable raw material, which fulfils its full function when it is appreciated and continuously incorporated into the industrial process.

05



Photography: Fernando Veludo/NFACTOS

“Thank you. It was your persistence, resilience and your team spirit that allowed our company to adapt at every turn.”

We will stay the course to become – far more than just a supplier of panels – a partner of wood-based solutions with added value, using a strategy based on decorative solutions, and by developing an integrated and differentiated range of decorative and construction systems, with a special focus on the Agepan® System.

This year, I am also counting on you to reinforce our contribution in changing the construction paradigm, so that wood is recognised for its value as an alternative to materials of fossil origin and that it is a key element in Europe asserting itself

as the first continent to achieve climate neutrality in 2050.

This experience forced us to take uncertainty for granted. I believe that the best answer to this volatile situation is to focus on the things that depend on us and which will make a difference in the future, and to continue doing what we do best: producing wood-based solutions with great technical performance and consistent quality, providing the best service, valuing the partnerships we have with our customers and working as a team with the ambition of improving

continuously. In this way, we can guarantee the sustainability of the company and the world we live in – reinventing ourselves together to go further.

Refresh

Overview

AN UNPRECEDENTED YEAR

The Covid-19 pandemic was definitively the most significant event for our company this past year: it tested us, forced us to reinvent ourselves and still remains a – professional and personal – challenge in our daily life. Right from the outset, Sonae Arauco set up a Crisis Management Team, who studied and implemented a comprehensive action plan to ensure the safety of our people and operations, notably through:

- **Coordinated screening** of all suspected cases of infection to ensure **standardised criteria for decision-making and prevention**, also enabling measures to be taken to maintain industrial production;
- Availability of materials in the industrial units and implementation of various rules and procedures in order to **mitigate the risk of infection**: amongst other changes, adjustments were made to the layouts of the plants to ensure **distance** between employees, **teams were organised in mirror**, **staggered work schedules** were secured and **internal protocols** were developed to regulate different activities **during a pandemic situation**;
- Implementation of a **remote working model** for all functions where this was possible, together with the **provision of equipment, technical support, and awareness campaigns on cybersecurity** and best practices, with a channel dedicated to the theme created in Our Portal;
- **Reinforcement of the proximity** of the Executive Commission to employees, namely through moments of communication from the CEO live via video conference about the evolution of the pandemic and its impact on the business.

700 employees work(ed) remotely

The teams in our IT department faced the very significant challenge of providing means for employees to work safely from home in record time. The digital transformation of the company, which started in 2018, played a crucial role in the adoption and use of collaborative technologies becoming widespread, and for us being able to rise to this challenge – and turn it into a success.

More than **80%** of computers assigned in 2020 were portable computers, representing a change in the IT strategy that reinforces our mobility.

More investment, more improvements

Improvement on Maintenance and Assets Management

It is being implemented in four industrial units – Oliveira do Hospital and Mangualde (Portugal), Beeskow (Germany) and Linares (Spain) – a project that foresees intervention in the maintenance and assets management processes. The objective is to standardise methods, invest in planning and shift from a reactive to a predictive maintenance, resulting in a greater reliability and equipment life.



Conclusion of the renovation of EuroResinas' natural gas boilers

The renovation of EuroResinas' boilers during 2020 ensured a reduced risk of interventions in the area and guaranteed levels of operation that allowed for major improvements in the levels of service provided to our customers; it was a disruptive change that impacted the daily lives of several teams.

Start of the new Continuous PB Line in Beeskow

In July 2020, the new Continuous Particleboard (PB) Production Line started-up at the Beeskow industrial unit in Germany. The investment, which exceeded 50€ million, was made as part of the Beeskow +50 project and will bring significant gains in terms of productive efficiency, enabling the production of lighter solutions and with a more homogeneous surface, while ensuring the reduction of carbon emissions.

A full year of news in our products

- Launch of the **Core & Technical®** and **Ecoboard®** brands
- Expansion of the **Innovus® Dealers** network
- Anti-bacterial properties of **Innovus®**
- Arrival of **Innovus® in South Africa**
- Launch of the e-book "**The New Normal with Innovus®** – Solutions for office refurbishments"
- New tool on the website – **Where to Buy**
- Digitalisation of marketing tools
- Presence at **EuroShop**.

Service improvements at the South African industrial unit

To make Sonae Arauco in South Africa a company easy to do business with, in late 2019 the Supply Chain team initiated a series of changes, including:

- Defining order management standards;
- Cataloguing the stock and identifying any that was old and/or obsolete;
- Implementing daily meetings for continuous involvement and training, something which was maintained during confinement, allowing the development of a new work *modus operandi*.

A NEW CHIEF INDUSTRIAL AND TECHNOLOGY OFFICER



Ana Fernandes was appointed Chief Industrial and Technology Officer (CITO) of Sonae Arauco in mid-2020. The new executive director of the company is 44 years old and has a degree in Mechanical Engineering from the Faculty of Engineering of the University of Porto, as well as a double degree in Management and Industrial Engineering from the Institut National des Sciences Appliquées de Lyon. Her professional career includes companies such as L'Oreal, PSA, OGMA and Amazon France, from where she left to join Sonae Arauco.

Result:

85% Current value of service level (OTIF – On Time In Full), previously between 20–25%

400m³ Current order return value, which was 6–8000 m³

94% Volume of useful stock (products in warehouse with turnover and sales), compared to the previous 65%

Awards and Distinctions

ZERO DEFECTS

The Zero Defects 4.0 project – which is aimed at using advanced predictive analysis systems to anticipate defects in the production of wood-based panels and reduce the waste of raw materials and energy consumption associated with the processes – was nominated for the **EIT awards - European Institute of Innovation & Technology 2020**, in the **Innovators** category, which recognises the development of products and services with a significant impact for a sustainable future.

IMPROVEMENT AWARDS

The Executive Commission of Sonae Arauco acknowledged and rewarded the teams that stood out for the improvements they had made during the year. For the first time, and given the circumstances, the event took place 100% digitally.

Quality: Oliveira do Hospital
Productivity: Meppen
Cost Savings: Linares
Team Involvement: Oliveira do Hospital
Service: White River/Woodmead SCS
Innovation: Beeskow
Safety: Valladolid

DOCOMOMO AWARD

The College of Architects of Valladolid gave the **DOCOMOMO** plaque to the building of the **industrial unit of Sonae Arauco in Valladolid** as a recognition of its heritage value, officially considering it one of the prime examples of the industrial architecture of the Spanish city.

BRONZE FOR OUR MAGAZINE

The second edition of the magazine **Wood Made Stories – Sonae Arauco World Stories** was distinguished with the bronze medal at the **Lusophone Creativity Awards** in the internal communications category.

CUÉLLAR IS A SUCCESS STORY

The **Cuéllar industrial unit** was distinguished by Sonae's **Improving Our Work (IoW) Advisory Group as a success story in the implementation of IoW culture and tools**. The results have been significant, both in terms of efficiency, changing times and risk reduction.



Sonae Arauco
Knowledge Academy

SAKA IS A CASE STUDY

The Sonae Arauco academy, **Sonae Arauco Knowledge Academy**, was chosen by the **European Round Table for Industry** as a case study on **Inclusion and Diversity**.

INNOVUS® COSMOS WINS TWO PRIZES

The Cosmos matte and three-dimensional finish of the **Innovus®** collection was chosen by the judges of the German Design Council as the winner of the **ICONIC AWARDS 2021**, in the **Innovative Interior** category. The particularly impressive combination with the decorative Feel Light Grey, inspired by textile felt, also won in the **Excellent Product Design and Elements** category of the **German Design Award 2021**.

GERMANY: ASSMANN'S BEST SUPPLIER AWARD

Sonae Arauco Germany was considered by **German furniture manufacturer ASSMANN Büromöbel to be the best supplier of 2019**. The areas considered for the awarding of the prize are reliability, quality, quality/price ratio and environmental compatibility/sustainability.

A NEW SAFETY ROADMAP 2021-2024

Standardisation, training, coaching

Safety is an increasingly important issue for Sonae Arauco and an essential and inherent value that cannot be compromised. The creation of a new Safety Roadmap was a natural step; this frames and materialises important initiatives and processes that have to be implemented or reinforced in order to achieve a true culture of safety.

Three main axis:



REDUCE UNSAFE BEHAVIORS



REDUCE UNSAFE CONDITIONS



SUSTAIN CHANGES

For each main axis, there will be three principles:

- 1) standardisation,
- 2) training,
- 3) coaching.

When?

Between 2021 and 2024.

Where?

Areas where there is greater potential for injuries: the factory floor of industrial operations and service providers, starting in a first phase with pilot industrial units.

2040 OUR GOAL TO ACHIEVE CARBON NEUTRALITY

Sonae Arauco is committed to becoming a carbon-neutral company in less than two decades in line with the rest of the Sonae group companies, advancing European goals by at least 10 years, and making its activity even more sustainable.

What we are doing:

An inventory of greenhouse gas emissions across the company, following the principles of the GHG Protocol, to establish a baseline and assess challenges and opportunities. Based on this analysis, a roadmap will be drawn up with the steps and projects necessary to achieve this ambitious objective.

Digitalise, Digitalise, Digitalise.

A MORE EFFECTIVE PRICE MANAGEMENT

In 2020, the PRICE FX platform was launched in the main markets of Sonae Arauco, which allows for better and faster price management. 2021 will see the solution's implementation in the remaining regular markets, providing features for defining price lists, discount policies and approval flows, which will in turn allow for integrated management of the entire process with benefits in terms of productivity, agility and control.

A NEW INTERNAL PORTAL

Speeded up by the need to ensure adequate and up-to-date communication on COVID-19, Our Portal was designed to gather relevant contents related to the daily life and activity of our company on a single platform. In addition to information about the pandemic, the portal includes other topics, such as news, updates from the CEO, results presentation, (i)Talks, various commercial information and, more recently, content on sustainability.

CUSTOMER SINGLE VIEW

The new Customer Single View (CSV) application in salesforce combines predictable and simplified processes to create a 360° view of the customer. It also ensures that all employees have access to the same information – both historical and prospective – from customers in order to better respond to their requests. With the CSV, Sonae Arauco now has a unique and standardised view of the customer, with timely and reliable information, thus providing better and more complete customer service.

DIRECT COMMUNICATION WITH THE CUSTOMER

After a trial period in 2020, the new Customer Portal has been made available to all European customers. The final version of the portal responds better to customers' needs by providing the option to assign different profiles to users, information on delivery notes and stocks, order management with flexible dates, and more features.

Opinion

The world changed. As did traditional work models.

Edite Barbosa

Chief Corporate Development Officer

I sit down at the computer once again, secretly relieved that I don't have another Teams meeting, ready to write for our Wood Made Stories. I thought it would be easy to write about the trends in working models in organizations. And it is. So much has been said, I have been thinking about it myself, but the words are not flowing as quickly as I imagined, because the same thought keeps disturbing me: how did this happen? How did we get here?

First of all, let me share a little story. When it comes to work, I belong to the "old school", a time when there was only face-to-face work. And I have always been averse to what I have so often called "modernities" with regard to flexible working models, with my disbelief in said models based on the fact that I believed team spirit would be lost, that people at home would not work as well as at the office, and in so many other prejudices that I have accumulated over several years of work. Well, at the end of 2019, perhaps November or December, a member of my team sent me a proposal entitled "Flexible working model". It suggested (among other things) that employees should be allowed to combine working days in the office with

a day of remote working here and there. More or less politely, I replied that it was not a priority and that we would talk about it later. In Portugal, there is a saying that goes something like this: "everything falls on our heads", meaning things tend to come back to bite us.

Shortly thereafter, I started to hear about a strange virus that was scaring some parts of the world. A few weeks later, it was a virus that worried the entire world and, in no time at all, even before I had the chance to grow as a professional with regard to the topic of flexibility of work in organizations, at the beginning of March, together with a fantastic and unbeatable team, I was preparing to announce remote work for the entire organization, whenever possible. Suddenly, people went home and from there started to work without access to the office, to learn how to do it on their own, to live simultaneously with children, colleagues and bosses, and with no clear separation between personal and working life. The rest you already know, because you experienced it first hand, each in your own way, with all the growing pains that accompanied us—the people and the organization—and made us grow.

How about the future? What will the new organizational models of work be like?

I don't believe everything will go back to what it was before the Covid-19 pandemic. But that's just my opinion, and this article, being an opinion article, is not binding on the company in any way. In fact, the matter is being looked at by the Executive Commission (and I'll talk about that further ahead).

People and organizations learned to work remotely, learned to hold virtual meetings, learned to be close to the "gemba", that place where everything happens, without being physically there. Without realizing it, our digital skills have evolved; our execution and task tracking mechanisms have also adapted to the new reality. And almost nothing remained undone, at least, as a direct consequence of remote work.

But if it's true that we have evolved in certain skills, it's also true that many of us suffered physically and emotionally from this claustrophobia that transformed the walls of our homes into the walls of the office and robbed each task of its allotted time.

Many companies have already announced that they will no longer have physical locations (offices), others have announced that they will give their employees freedom of choice, and others have announced that they will build new offices. There are no rules in the new normal. Each company is free to decide the work organization model that best suits its business and culture.

Rushing and haste are the enemies of a task well accomplished. There are several issues that need to be analysed before making a decision: what are the effects of the pandemic and remote work on the physical and mental health of employees and what are the limits to working time, what will the different legal frameworks regulating remote work look like and, just as importantly, what value position do companies want to have as employers?

And at Sonae Arauco?

As we have shown throughout the management of this Covid-19 crisis, we have been proactive in everything that concerns the protection of our people and work management.

On the subject of new work models, we aren't waiting around for the world to create new trends. Therefore, we have analysed what is happening on a global scale in terms of work patterns (100% physical presence, 100% remote, hybrid), studied the latest articles from



organisation. We are looking for the facts, the statistics that support sound decisions.

Clearly, the world and life are more uncertain than ever and that is why we have to monitor the daily development of Covid-19, especially in the regions where we are present. We may have to change everything at the drop of a hat. Rethink everything again. But right now, while I'm writing on this topic, it is the intention of this organisation to create by the end of September a work model that represents our value as an employer: because we are an industrial multinational, because we value our people, and we know that we can all benefit from this so-called "new normal".

We can encourage a balance between personal and work life; we can recruit more flexibly and in different regions, because the world has grown, but everything has strangely become so close; we will follow the new trends in geographic mobility, because we have all learned that the office, as we knew it, is not the centre of the world.

experts in the field, and we are already sounding out our people about their work experiences during the pandemic and about their expectations for the future. We want to hear from everyone about the difficulties they have experienced and the good things they have learned from this very intense experience. Soon, all this information will be consolidated and transformed into a picture of the

And that archaic model of bosses with employees sitting next to them no longer exists. Work has to be where results are achieved best and fastest for the benefit of people and organisations. And that's where we're headed.

Featured Photography

The arrival of the Covid-19 pandemic imposed a reinvention of the work model in all countries where we are present. In just a few days, hundreds of Sonae Arauco's employees turned their homes into offices, a new kind of work with new management and interpersonal relationship challenges. Given the nature of our activity, most employees continued working in the industrial units, but they also had to relearn how to work taking into consideration the new guidelines, and always making safety the top priority. The ability to work as a team - despite the distance - was crucial to keep the company running and overcome this challenge together.

Currently, about 20% of our people are working from home. This is the case of Susana Teixeira Cunha, Iberia HSE Coordinator, who, in the picture, is in a video meeting with Leonardo Porto, Business Data Analytics Engineer, who is working in the control room of Mangualde's industrial unit, in Portugal.

Photography: **Pedro Sadio**



Interview

An unlikely conversation with Inês Ribeiro and Steffen Körner

Steffen witnessed the fall of the Berlin wall; Inês is a millennial. At age 60 and working for Sonae Arauco for more than 20 years, he became an engineer at a time when career options were very limited; she, who is 29 years old and has been working at Sonae Arauco for three, left her parents with a heavy heart after choosing to study psychology in a country in crisis, which saw young people like her emigrate every day because they could not find a job.

The two met to bring about this article of Wood Made Stories. In a conversation spanning more than 1,200 miles between Aveiro, Portugal, and Meppen, Germany, they talked for almost two hours about the biggest obstacles they had encountered in life – and told us how they have had to reinvent themselves to overcome them –, about their passion for working with people, about how Sonae Arauco's culture motivates and guides their purpose, and how they realised that they have much more in common than one might expect.



Inês Ribeiro

HR Operational Manager

Inês Ribeiro is 29 years old and was born in Aveiro, Portugal. She completed her master's degree in Clinical and Health Psychology at the University of Porto, as well as a postgraduate degree in Human Resources Management at the CRIAP Institute. She joined Sonae Arauco as an HR Technician in 2018.

Inês, HR Operational Manager, grew up in Portugal in the 1990s. Steffen, General Manager and Industrial Operations NEE Director, grew up in Germany in the 1960s. What were your childhoods like?

Steffen Körner (SK) – I was born in Dresden, in East Germany, and lived there until the fall of the Berlin Wall in 1989. I grew up with several children in the neighbourhood and used to join my father in his construction and gardening works. My parents were both engineers, which placed barriers on my education – the system limited the options of those who were not part of the working class. I ended up finding a way around these limitations, but I didn't have much freedom to choose the course. I opted for wood and fibres.

Inês Ribeiro (IR) – I grew up in Aveiro... Steffen, whenever you come to Portugal,

you have to come to Aveiro and taste our Ovos Moles, our traditional dessert! [Laughs] As I was saying, I grew up with my sister and my cousins. We were of similar ages and used to be together all the time. I practised horseback riding during my teen years on a farm. It's funny because I was listening to Steffen and I was thinking that, actually, while I grew up in a free society, when I started university in 2009, Portugal was going through a huge economic crisis. I remember my parents trying to analyse with me which field would give me the most opportunities, and I ended up choosing Social Sciences, which was the complete opposite! I graduated in Psychology. It was very risky. Even having a lot of freedom, I felt some pressure. I needed to make things work.

SK – I think it's also not easy to have all the choices available to you. I noticed this

with my daughter and other young people who struggle to understand which path they should choose. Yet, it still seems better to me than having no choice [laughs]!

What moments in your personal and professional journey would you highlight as those where you had to reinvent yourself in order to overcome certain challenges?

SK – There are countless moments. The first was after the wall fell. Life would end up getting better, but we went through some difficult times. There were no jobs; the Western part of Germany was suspicious of the Eastern part. I decided to emigrate to Scotland. Another challenge was nine years ago. While Chief Technical Officer of the German operation, a reorganisation took place and I became Wood Procurement Manager. It was a

Steffen Körner

Managing Director

Steffen Körner is 60 years old and was born in Dresden, Germany. He holds a degree in Wood and Fibre Engineering from the Technical University of Dresden. He joined Sonae Arauco in 1997, as Plant Manager of the Eiweiler plant, and is currently General Manager and Industrial Operations Director of Sonae Arauco Deutschland GmbH, Sonae Arauco Beeskow GmbH and ImPaper GmbH. He also holds the position of Industrial Operations Director for Sonae Arauco's NEE region.



17

moment where I had to stop and think about what it meant, and whether this change was in the right direction. I decided to look for a coach to support me in defining – in reinventing – this path in order to reflect on my expectations and learn how to deal with colleagues and superiors better. This was very important to me because I started to look at my life differently and focus on important areas of it, such as my family and myself. And opening up new horizons led to other opportunities. The pandemic was also a defining moment, but my greatest self-reinvention happened when my son, who has a mental disability, was born. It changed everything: my wife's dreams, mine, our life. It took us a few years to try to understand, accept and allow what had happened to us to enrich our lives. Today, we feel a sense of gratitude.

IR – The pandemic was the situation that forced me to reinvent myself in a major way. It totally changed the way I work and how I live. Initially, I went through a lay-off period, where the challenge was to reflect on how I could continue to be a good asset for the company; then, when I came back, I really needed to reinvent myself: the rules were changing every day and people were relying on the Human Resources department to find answers, support and solutions to keep working, whether at the plant or at home. For example, we had to help many people understand how to strike a balance between their professional responsibilities and a new role, or in some cases, several, brought about by the situation, as full-time teachers and caregivers.

What has changed in your professional routine with the pandemic?

IR – Almost everything! In my department, we had to change the way we work as a team because we worked close together in the same building. And I usually went to the plant every month. When I took on this position, I realised that this monthly visit was very important in building a relationship with the employees, because most operators don't work with computers and need to see us in person to ask questions in order to establish trust. I felt that whenever I visited the factory, I was more involved and closer to people. Now I need to be able to stay close, but with reduced visits. It's a challenge. But in fact, what I like most about my job is the opportunity to surpass myself and the fact that no two days are the same.

SK – When the pandemic arrived, customers were very quick to cut back on their orders. To decide how to manage

the situation, we put together a small team with all departments and, for a few months, we met every day in video conference calls. These were very short, one-hour meetings, just to understand the situation, which was changing every day, and to discuss what we were going to do for the next 24 hours. And what I learned was that, even in a crisis situation, with the right team and the right goals, we were able to succeed. We ended up having one of the best years ever in terms of results in Germany. We met almost all targets and it's something that I'm very proud of.

Both work with people, albeit in different spheres. What are you passionate about in your jobs?

SK – I am an engineer, but something I learned early on when I emigrated to Scotland at the beginning of my career, is that in complex environments, nothing gets done by just one person. Everything is connected. At that time, I also learned that, first of all, you need to understand the situation and only when you do, can you get people to act in a certain way. And even though I can tell you right away how things have to be done due to my vast experience, I choose to ask questions and try to involve people so that they can reach a solution themselves. We therefore decide on the solution together, even if it has to be corrected later. I see myself more as a coach or advisor, rather than being the boss who tells each person what they need to do.

IR – I am very curious about human behaviour. When we work with people, we work with behaviours. It is fascinating trying to understand what behaviours have led to a particular situation. And, from there, to think about how you can improve that person's motivation, show the different options that are available, or even try to change the way the person views something.

How does Sonae Arauco's culture motivate you in your daily work?

IR – For me it is very important to work in a company that cares about its employees' well-being and that has a good – and fun – working environment. It may seem like just a small detail, but for me it is very important to know that nobody is expecting me to answer my phone outside my working hours – even if I answer it (and I do answer it). It also motivates me to be flexible and create close relationships between colleagues, even among those who are our superiors. And Sonae Arauco is a great example in all of this. It is also an organisation that views diversity as a commitment, and puts it into practice. Something I really value is the dialogue environment. Note: here we are, two people of different nationalities and ages, with different backgrounds and experiences, and we have the opportunity to discuss our views on work and life.

SK – I work in this area so that I can improve people's lives and make the best solutions accessible to everyone. I feel like I work in a company with a purpose I can identify myself with. We create our products using materials which are natural, and, in comparison to others, accessible to most people. If this didn't exist, our environments – at home, in the office – would be completely different and most of us would not be able to have that many furniture because it would be so expensive. I value the role given to diversity, as well. For me, this is a fundamental requirement for sustainability. If we did not have diverse people, products or business models, we would not be able to maintain a stable and sustainable business.

And what advice would you give to each other's generation?

IR - It's a little hard to give advice like this [laughs]. If I could give Steffen some advice, it would be to remain open to the ideas of *millennials* and to continue to give us the opportunity to learn from him and his experience. It is good to have space and opportunities to be creative and to put our ideas out there.

SK – And I'll take the advice [laughs]. Advice is always difficult to give, but one lesson I can share, related to my experience and mistakes, is that children will never forgive us if we don't have time for them because of work. Perhaps this was something I did not do very well. Another thing to always remember is to always be interested in our career, regardless of the next step. This is essential during these changing times.

CURIOSITIES

Favourite meal

IR - Our codfish, in any recipe.

SK - Beef slow-cooked in red wine.

Favourite destination

IR - Cambodia. I visited the country just before the pandemic.

SK - Scotland, especially the Isle of Skye.

Guilty pleasure

IR - Chocolate and watching TV shows while eating brownie ice cream.

SK - To drive without having a destination.



19

Steffen Körner at the Meppen industrial unit. Inês Ribeiro at the Maia offices, in a picture taken before the pandemic, talking with Ana Pais da Silva, Group HR Processes Design, and Susana Barros, SWE Talent & Organizational Development.

In-depth Report

Valuing the forest to reinvent construction

In early 2021, the World Meteorological Organization, a specialist agency of the United Nations (UN), revealed that 2020 was one of the hottest years in history, confirming “a persistent trend of long-term climate change”. The list of consequences of inaction paints a bleak picture, even if we only analyse the impact on the European Union (EU) and the horizon of one year: 400,000 premature deaths due to air pollution; 90,000 deaths resulting from heatwaves; for each 5°C increase in temperature, 660,000 additional requests for asylum and a further 16% of species at risk of extinction; a 40% reduction in the volume of water available in the southern regions of this continent. The effects extend to the economy, which could lose €190 billion every year, along with €40 billion in costs due to the increase in heat-related mortality and a 20% increase in the price of food by 2050.

22

The President of the European Commission, Ursula von der Leyen, summed up the issue in a very pragmatic way: “The cost of the transition will be high, but the cost of inaction will be much higher”. That is why Europe plans to mobilise €1 trillion for this transition over the next decade, and is relying on a joint effort between the public and private sectors to transform the EU into a climate-neutral continent in less than three decades. “The first and fastest companies to act will also be the ones that seize the opportunities of the ecological transition,” she stressed.

“We are in the right industry at the right time.”

“We are in the right industry at the right time”, says Rui Correia, CEO of Sonae Arauco. Today, buildings are responsible for more than 40% of the energy we consume, and for more than 36% of greenhouse gas emissions related to energy consumption.

“The challenges are extraordinary, but from our company’s perspective, so are the opportunities. The construction sector is one of the axes of this paradigm shift – it needs to be reinvented. And wood, Sonae Arauco’s DNA, can play a central role in this reinvention.”

It all starts in the seed

Taking only European forests into consideration, an overall positive effect of approximately 806 million tonnes of carbon being captured annually is estimated, corresponding to 20% of all emissions of fossil origin in the European Union. From a global perspective, and according to an analysis recently published in the Science journal: if one billion more hectares of forest were planted, about two thirds of

the nearly 300 giga tonnes of carbon produced in the past two centuries could be removed from the atmosphere, preventing a temperature rise of 1.5°C by 2030.

Forests are therefore an essential asset in mitigating global warming – and, although Sonae Arauco does not hold a forest area, the company works with these numbers in mind every day.

“We believe that economic value cannot be created without environmental and social sustainability. As such, sustainability is fully integrated in Sonae Arauco’s strategy and the sustainable exploitation of forests takes priority for us, and is a principle that we actively respect in all business practices, ensuring, for example, the exclusive use of wood from sustainably managed and carefully controlled origins”, explains Rui Correia.

“We believe that economic value cannot be created without environmental and social sustainability.”

Sonae Arauco’s commitment to treasuring the forest also translates into an ambitious and innovative strategy for forests, whether through the leadership of research and development (R&D) projects, or through the integration of working groups whose purpose is to develop and ensure the transfer of knowledge for the management of this natural asset to ensure its sustainable development. “It is a strategy based on our knowledge about the forest, the potential of this natural asset and its complete valorisation,” adds the CEO.



Between March and April of this year, Sonae Arauco planted 21,600 pine trees in an area of about 24 hectares as part of its forestry R&D project.

The importance of certification

Out of the two main global forest certification systems, whose mission is to promote sustainable forest management, Sonae Arauco holds the chain of custody certification **PEFC™ (Programme for the Endorsement of Forest Certification)** and **FSC® (Forest Stewardship Council®)** (FSC®C104607), in this case covering all industrial operations. In addition to participating in promoting **FSC® Portugal** as a member of the board, and **FSC® Germany**, Sonae Arauco is also a member of the **international Forest Stewardship Council®**.

A pioneering and unprecedented R&D project to increase the profitability of the Portuguese forest

From Portugal, the company launched a pioneering R&D project aimed at helping forest producers to significantly increase their production, contributing to reverse the falling trend of planted area in the country, as well as to align the availability of raw materials with the predicted increase in market demand for sustainable solutions such as wood. Nuno Calado, Wood Regulation & Sustainability Manager, sums up the problem: “Between 2005 and 2019, the growing volume of maritime pine in Portugal registered a decrease of 37%. Between 1995 and 2015, 27% of the planted area was lost, equivalent to more than 13,000 football fields every year. To a certain extent, these numbers were the result of low productivity and



Nuno Calado
Wood Regulation & Sustainability

lack of management, generating less profitability, which impacts the entire value chain. Sonae Arauco’s Forestry R&D project aims to reverse this trend, increasing available expertise, empowering producers and allowing them to make the Portuguese forest a more profitable asset.

“Sonae Arauco launched a project to help forest producers increase their production, helping to reverse the trend of decreasing pine planted area in Portugal.”

“We used more than 100,000 maritime pine and radiata pine seeds from different families (136 in total) and origins (Portugal, Spain, France and Chile). All

of these seeds were genetically improved, that is, from species with proven high productivity”, he explains. The idea is now to “test and compare the behaviour of plants under different soil and climate conditions in an area of around 24 hectares. An investment of €150,000 has been made so far, but this figure is set to increase in the coming years. During the first stage, which ran from October 2020 to February 2021, the plants were grown under identical conditions in a forest nursery. Between March and April this year, 21,600 pine trees were planted in an area of around 24 hectares. The process will be repeated in 2022 in order to eliminate the effect of the climate on the results and to ensure that the right seeds are planted in the right place. “The sustainability of Portuguese forests also depends on this correct combination of trees, atmospheric conditions and soil conditions”, summarises the specialist. At a later stage, the test zones will also serve as demonstration areas.

rePLANT: €6 million investment and an unprecedented collaborative effort

In 2021, the company joined 20 other entities, including other leading companies in the sector and non-business entities for research and innovation (I&I), in an unprecedented collaborative project in Portugal – rePLANT –, which will introduce new technologies to develop the Portuguese forest and make it safer, with an investment of around €6 million (co-financed by European funds), involving more than 70 researchers and specialised technicians over the next three years.

“The strategies we are going to develop will give rise to new products, processes and services contributing to reducing the fire risk and introducing a high degree of innovation, with positive impacts along the entire chain, most notably in terms of its service providers and forest producers,” explains Nuno Calado. Sonae Arauco and Instituto Superior de Agronomia, School of Agriculture, are responsible for the collaborative strategy for forest and fire management. The idea, he explains, is “to realise which pine species/origins are more productive and more adapted to climate change, as well as to find new models of sustainable forest management for the main Portuguese forest species in order to increase their productivity, resilience to fire and adaptability to climate change”. Furthermore, “research work on digital and remote sensing technologies will be carried out to advance the level of knowledge of forests and forest biomass, and at lower costs than the methods currently used.”

Sonae Arauco participates in one of the largest carbon offsetting projects in the business ecosystem

Over the next 30 years, Sonae Arauco will also assume a central role in one of the most ambitious carbon offsetting projects ever developed in Portugal. The Sonae forest (see box) has been designed to mitigate the environmental impact of the employees’ vehicle fleet and service vehicles, evidence of the group’s commitment to carbon neutrality. “We are going to plant 1 million trees in a mix of maritime pine (80%) and common oak (20%). In the first 11 years alone, the project is expected to offset about 161 kt CO₂ and lead to afforestation of 1,189 hectares, corresponding to an investment of €3 million solely in afforestation activities”, says Nuno Calado. The investment in the project also considers €16 million for the management of the forest cycle, which will be shared by all participating companies: in addition to Sonae Arauco, Sonae, Sonae MC, Worten, Sonae Fashion, Sonae FS, Sonae Sierra, Sonae IM, NOS, Sonae Capital, Sonae Indústria and Fundação Belmiro de Azevedo.

The project also aims to help minimise the high economic, environmental and social impacts of the 2017 fires, where around half a million hectares burned, with the chosen area, Mangualde, in the Centre of Portugal, being one of the most severely affected. Sonae Arauco will integrate the raw material into its production process, and, in the long term, use the area as a forestry laboratory to work with its partners, demonstrating best practices, innovations and pilot testing, amongst other things.

The three pillars of the Sonae forest

1. Compensation of emissions from the Group’s fleet of vehicles powered by fossil fuels, until they are replaced by electric vehicles, ideally in the next ten years.
2. Constitution of a forest managed over time, making it possible to make the most of the carbon retention capacity of the trees and, once they reach the maximum absorption maturity stage, use them to produce wood.
3. Promotion of biodiversity and resistance to the impact of forest fires, through forest management, the planting of several indigenous species along water lines and ecological corridors.

A commitment across all geographies

The commitment to the forest is reflected in the remaining markets where Sonae Arauco is present. Martin Loeb, Head of Wood Procurement NEE, sums it up: “We know that sustainably managed forests create sustainable jobs, create wealth and do not consume tax revenue. For this reason, we use only sustainably produced wood – and usually from local forests (located less than 200 km away of the industrial units, on average). Well-managed forests here protect primary forests elsewhere from destruction”, he says, speaking from Germany. Gavin Burnhams, Timber Procurement Manager at the White River, South Africa unit, explains that

certification is also an essential requirement for the supply of wood in that market. “We have the additional advantage of being able to help forest producers in situations where the wood is damaged by fires, insects or diseases, since our process allows us to use wood that, by conventional standards, is not suitable for other formal processes, integrating this raw material into the value chain, and preventing waste”, he says. Domingo Rodriguez, Wood Supply South Europe, explains that, in Spain, the company has also focused on the need to sensitise all players – in this regard, but also in other industries, namely that of energy production – in order to “ensure the principle of hierarchy of use, rationalising the use of wood, recycling it successively and only burning it as a last resort”.

“The sustainably managed
forests create sustainable
jobs, create wealth and do not
consume tax revenue.”

25



Gavin Burnhams
Timber Procurement
South Africa



Domingo Rodriguez
Wood Supply South Europe



Martin Loeb
Wood Procurement NEE

Reinventing construction

When presenting the European Commission's Strategy for a Renovation Wave, which aims to modernise 35 million inefficient buildings by 2030, Ursula von der Leyen drew attention to the role that wood can play in meeting the objectives of the programme as part of the Green Deal, explaining that the construction sector needs to evolve from an emission font to a source of retaining CO₂, the main cause of climate change.



The project for the Nova School of Business and Economics campus in Carcavelos, Portugal, a reference building in Europe, incorporates several materials from the Innovus® decorative collection.

Sustainable raw materials, such as wood, combined with smart technologies have been identified as determining factors for the success of this strategy, whose priorities include expanding the market for sustainable construction products and services, with the integration of new materials and solutions based on nature. "We know that, in addition to being a natural, renewable and recyclable raw material, a reliable, safe and versatile material, wood has a remarkable capacity to store carbon dioxide, presenting itself

as a valuable alternative to materials of fossil origin", explains João Berger, Chief Marketing & Sales Officer at Sonae Arauco. For example, one tonne of cement emits approximately one tonne of CO₂. One tonne of aluminium emits 16 times more. By contrast, each ton of wood results in the capture of two tonnes of CO₂ – "and this is an increasingly relevant aspect that is already dictating the materials that will be a priority to leverage in the evolution towards a true sustainable construction paradigm."

"This awareness is already bringing about very relevant changes in the sector, which needs to respond to the challenge of overpopulation, building more and faster accessible structures, and, at the same time, doing so without releasing CO₂ – including finding a way to absorb carbon."

"This awareness is already bringing about very relevant changes in the sector, which needs to respond to the challenge of overpopulation, building more and faster accessible structures, and, at the same time, doing so without releasing CO₂ – including finding a way to absorb carbon," he adds. João Berger cites as an example the evolution towards increasingly modular construction models, "in which the traditional construction sites are transformed into assembly spaces, with very significant gains in terms of productivity". However, he stresses that it will take the involvement of all parties to respond to this ambition, especially in the context of urgency: "Governments, who should focus on granting incentives capable of greater multiplier effects; construction companies, which need to be open to innovation and disruption; industry, through the development of innovative and appropriate solutions, and architects, who

have to be involved in this change to get to know wood and its potential better", he explains.

In this global marathon, Sonae Arauco is taking a huge step: this year, the company made a commitment to become a carbon-neutral company by 2040, a date that even intends to get ahead of the European goal by 10 years. It is, in essence, a continuation of the journey. For decades, the company has been operating in a logic of circular economy, using raw materials of sustainable origin and incorporating by-products from the wood industry that are either used in the production of wood-based panels or, when this is not possible, become a source of energy for the industrial units.

Sonae Arauco's value offer in terms of sustainability is transversal: a natural raw material, a production process that

27



João Berger
Chief Marketing & Sales Officer

"Our business model and products form the basis for an economy of the future, so we have a duty to leverage its full potential."

fully complies with the principles of the circular economy and a comprehensive portfolio of ecological products. In this context, the company's solutions respond to the needs of the furniture and interior design sectors (through the Innovus® and Core & Technical® ranges) and the construction sector, through the Agepan® System solutions, which aims to actively contribute to the paradigm shift in construction, with opportunities for future growth to be assessed (see pages 28 and 29).

Every year, Sonae Arauco is responsible for retaining around 2.1 million tonnes of CO₂ through the products it places on the market. "Our business model and products form the basis for an economy of the future, so we have a duty to leverage its full potential. In this sense, we remain attentive, investigating and working to innovate – to permanently reinvent ourselves, just like wood", concludes João Berger.

Our task force for a greener construction sector

In view of Sonae Arauco's ambition to evolve from a supplier of structural and insulation boards into a partner in construction systems, at the beginning of the year the company created a task force composed of members from the Marketing, Market Intelligence, Product Development and Sales teams.

sustainable construction with natural and added value raw materials, developing strategies for the growth of construction solutions, expanding the Agepan® System offer while, at the same time, contributing to the promotion and growth of wood construction in countries where it is traditionally less common.

The objective of this working group is to take advantage of the opportunities of



Michelle Quintão
Group Marketing



Luís Baptista
Product Development & Technical Support



Adelaide Alves
Group R&D and Product Development



Camilo Morais
Market Intelligence & Pricing



Hans-Robert Holzer
Sales and Marketing Agepan® System



Andreas Schmitt
NEE Market Intelligence

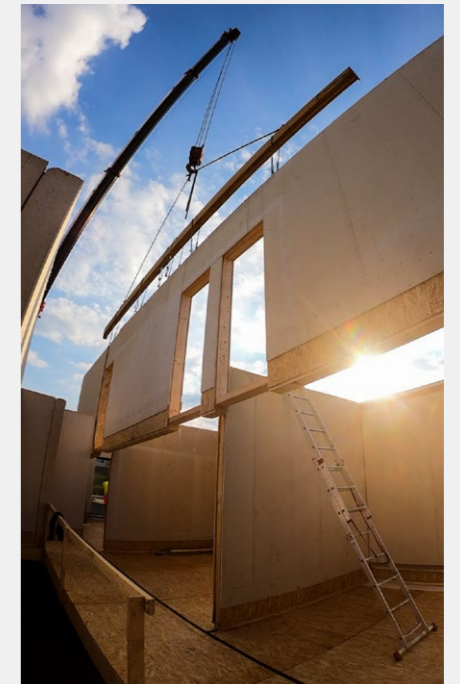


Nuno Carneiro
Brand

Our sustainable alternative

The Agepan® System is the integrated system of sustainable wood-based solutions for construction at Sonae Arauco, based on high quality, functional and reliable wood fibre boards for use on roofs, walls and floors. In addition to the environmental advantage, these solutions have a positive impact in terms of safety (tested fire resistance constructions are possible), health (the wood fibre insulation boards achieve class A and A+ for indoor air quality assessment according to French VOC

regulation and the sound insulation is of high quality), and economics (shorter construction periods and thermal insulation conditions reduce energy costs, namely due to the summer heat protection abilities of the wood fibre boards). At the end of their useful life, these solutions can be recycled and transformed into new products, integrating a continuous recycling cycle.



The Sol Residence complex, in Romania, is a great example of a smart and energy efficient construction that uses the wood-based solutions of Agepan® System. It consists of eight houses with a minimalistic design, clean lines and open spaces, that use Agepan® THD T+G, Agepan® DWD and Agepan® OSB Ecoboard®.



Frans Arnoldi, 54, is Technical Manager at Sonae Arauco in White River, South Africa. He has been with the company for 26 years. Today, he is responsible for major development projects, operational efficiency, benchmarking and technical support, to name a few.

Profile

Frans Arnoldi

A leader always serene

He is a boss who always keeps his door open so that others, like him, can question the world and the way it works. At the company, he is rational and thoughtful. He delegates, empowers, trusts – but, whenever necessary, he finds solutions when others see the situation as lost. When not at work, you can find him in the outdoors, which he captures with his camera.

Frans was about 15 when he almost electrocuted himself while repairing an electrical appliance. “I was lucky. The circuit breaker did its job”, he recalls, laughing. Since he was a young boy, he has been fascinated about understanding how things work – he had a habit of taking everyday objects and disassembling them to analyse what was inside and then putting them back together. He acknowledges that at the time, there was little awareness of the danger, but even now, looking back, he still considers, with good humour, that the knowledge he gained from these experiences clearly outweighed the risks. “This experience gives true meaning to the safety Life Saving Rules implemented in the company”, he says.

33

The path to engineering and problem solving was, however, delayed – or, as he says, “complemented” – by two years of compulsory military service in his home country of South Africa. “It taught me the importance of discipline in what you do”, he says. “When I arrived, just out of school, I thought I knew everything and that my perspective on the world was the right one. And in the Armed Forces, you’re forced to abandon these idiosyncrasies and to implement discipline in everything you do.”

The desire for more knowledge and discipline are still two of the best characteristics to describe Frans Arnoldi and his career at Sonae Arauco. After finishing his master’s degree in Mechanical Engineering, he joined Sappi Mining Timber and Sawmills, where he started out by developing ISO standards (informative descriptions and best practices) for the production process of timber supports used in mining. He came across the company he is now a fundamental part of by accident: “I am one of the few people who did not go to Sonae to have an interview. It was Sonae that found me when it came to own Sappi”, he recalls. Currently, he holds the position of Technical Manager at the White River industrial unit, and has been with the company for 26 years. “I have held several positions: from Section Manager to Engineering Manager and Factory Manager at the George and White River plants, and the company has had so many management teams during these years, that I feel like I have worked in multiple companies”, says Frans, in what is also his response to anyone who asks him how he manages to stay in the same company for so long. “He is probably one of Sonae Arauco’s best-kept secrets”, as Gavin Burnhams, Timber Procurement Manager and his



colleague at the White River facility, puts it simply.

The door is always open

With three engineers to manage and four production lines to support, Frans says that his team never has a boring day – not even a routine one. “Every week there are different challenges and it is my goal to make the company more efficient in its operations, and have a vision to get it moving towards carbon neutrality, environmental sustainability and social responsibility”, outlines the Technical Manager. He was the one in

charge of the industrial unit’s capacity expansion project in 2006, which enabled the launch of a new Particle Board production line – but not without first rebuilding half of a building that was still active with production – and the one who, in 2012, after a lot of persistence, succeeded in having the electricity tariff structure for the factory fixed to a national published indicator, an important step towards reducing the plant’s costs.

Still, no other period has demanded greater adaptability and greater resilience from Frans and his team than the early

months of the Covid-19 pandemic. And it wasn’t just because it forced everyone out of their comfort zone. The plant was preparing to take a very important step. “We had the start-up performance tests for the new line – which are mandatory for us to be able to run the line without the supplier’s supervision – scheduled for the last week of March 2020. The President of the country announced the lockdown the Sunday before it”, he recalls. There were already technicians from the supplier at the industrial unit ready to move forward and others were on the way, but they were forced to postpone everything. “We were put in a complicated

position because, according to our contract, we were only able to take over responsibility for the line after performing that test.”

The situation forced Frans and the team to think of alternative solutions – to dismantle the problem in order to put it back together. “We managed to reach an additional agreement with the supplier in which we accepted any damage, but it was our team that managed the line. At the time, we were also quite comfortable with it”, he continues. As a result, while the country remained at a standstill and traditional customers cancelled orders, Sonae Arauco’s facility was able to keep working – “We were considered an essential service”, he explains. After that, the industrial unit would end up interrupting production, due to the lockdown, taking the opportunity to bring forward the annual maintenance work for the lines.”

The rational, analytical and empathic way in which all these challenges were addressed is characteristic of Frans Arnoldi. “He is an absolute gentleman at all times, showing a high level of intuition and emotional intelligence, combined with a deep knowledge on various topics. He shows a cunning and rational ability beyond the obvious and has become the go-to person whenever we need advice on complex topics”, emphasises Gavin Burnhams. Khuselo Makaula, Project Engineer, adds that, in addition to Frans’ thoughtful and critical nature, he also encourages the people around him: “Whenever we ask him a question, he usually asks us that question again to see if we have thought about certain aspects of the issue before giving his view”.

As he himself says, he has an “always open door” policy, where “people are free to rely

on the necessary support to keep everything rolling”. The aim is to eliminate barriers between teams, facilitating problem-solving, autonomous work and individual growth. “He’s a great listener and he makes time to be available. He wants a team built on trust and respect. He trusts us to get the job done and respects our contributions and ideas”, highlights Khuselo Makaula. “He wants people to work independently and get their minds working”, adds Lisa Main, Process Technologist. He is also a person who does not lose his temper. Not even in times of crisis. Gavin Burnhams recalls two illustrative events at the George factory, a machine imploding and a fire. “I was highly impressed by the calm and calculated approach he took. While everyone around him was losing their mind, he never lost his temper. He never reacts without a cautious and calculated response”. Lisa Main also highlights the boss’ sense of humour as one of his strongest characteristics.

A love for nature

The quarter-century that he has already spent at the company makes him one of the people who knows the situation of the industry in South Africa best. José António Rocha, Group HSE & Risk Management Director Industrial Operations, guarantees it: “If you have any questions about Sonae Arauco in South Africa and even about the industry, the best person to ask is Frans. He knows everything like the back of his hand”. Since he dedicates so much time to data, he emphasises the importance of accuracy. Colleagues say that, at meetings, Frans is the one who takes all notes for future reference. “We can ask him about something mentioned at a meeting last year and, if he doesn’t remember at that moment, he checks his notes and gets back to us”, says Khuselo Makaula. Johan Engelbrecht, IOW Country Coordinator, adds that “when he speaks, everyone listens”.



34

For Frans, discipline does not solely apply to tasks and deadlines. For him, principles are something that cannot be overlooked. “There are not many things that make me uneasy, but I am bothered by situations of injustice in the way our people are treated. When different people are treated in different ways, but for the wrong reasons”, he points out. José António Rocha recalls a situation in which there was a problem with a neighbour of the factory, who, in a meeting, attacked the company unfairly. “I have known Frans since 2009 and that was the only time I have seen him break out of that entirely calm stance. And yet he never got worked up. He managed to argue logically that the person was wrong using data that he had organised.”

Separation between personal and professional life is another area where Frans always has a sense of reason. Colleagues describe him as an empathetic

manager, who cares about his people and their well-being. When it comes to himself, Frans likes to spend time exploring nature. He holds a pass that allows him to enter the Kruger National Park, one of the most famous in the world for its diversity – and which is just 30 miles from the White River industrial unit – without restrictions, he practices wildlife photography and he is always thinking about his next destination.

“He knows how to say the name of most birds he finds,” points out José António Rocha. In a year dominated by the pandemic, he also needed to reinvent himself outside the plant: “Without being able to travel, I am always fixing things at home, or enjoying a good braai, a South African barbecue.”

The team

From left to right

Johan Engelbrecht
IOW South Africa

Lisa Main
Process Technologist

Khuselo Makaula
Project Engineer

The best equipped industrial unit on the African continent

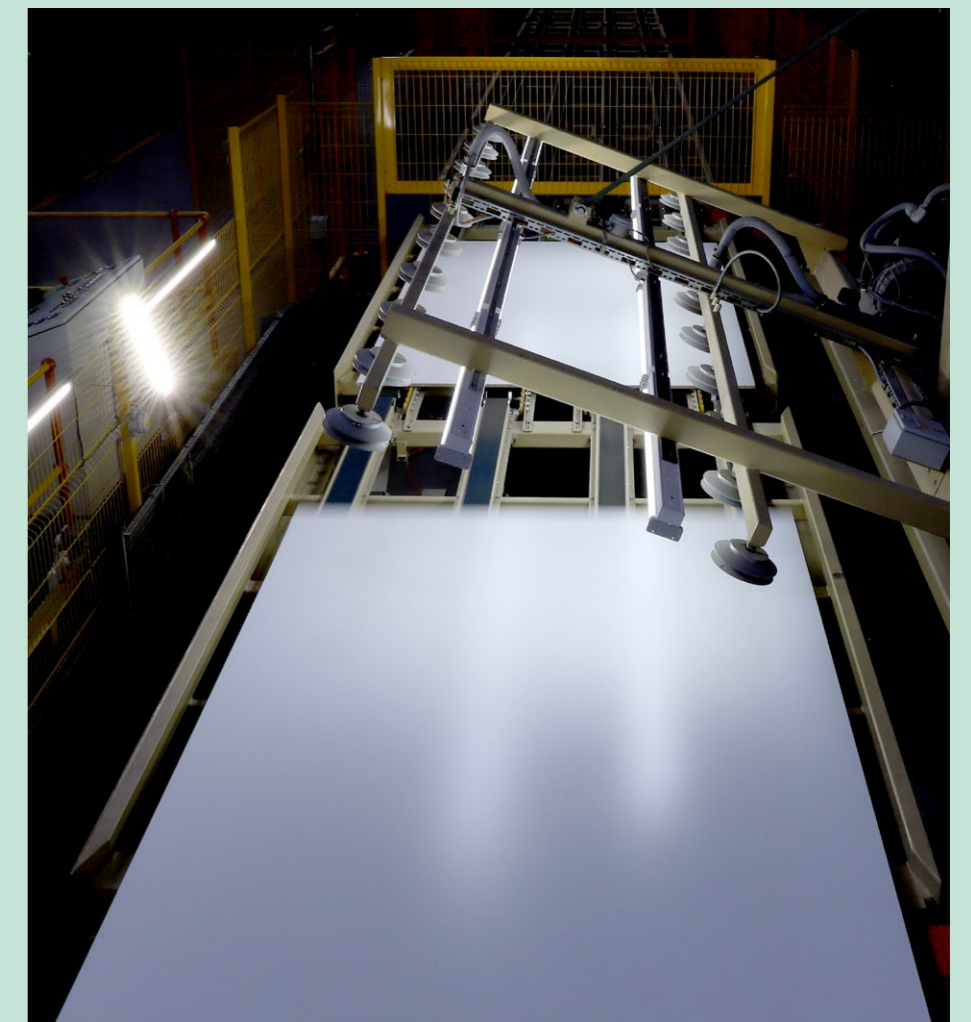
The year 2020 was marked by the start of the new continuous melamine coating line at the White River plant, a project led by Frans Arnoldi, representing an investment of €13 million and reflecting Sonae Arauco’s commitment with South Africa.

Despite the challenges imposed by the pandemic, the team succeeded in putting the line up and running. In practical terms, this means that the industrial unit doubled its capacity with regard to melamine faced board production, through automation in the handling of paper and boards.

This equipment, which was installed close to the existing melamine line, made Sonae Arauco’s industrial unit the best equipped on the African continent and brought it in line with the best on a global scale, allowing the company to respond to current and future needs of decorative finishes available to local customers that, until then, had only been available on the European market or was restricted in capacity.

“The technology installed now makes it possible to produce a product of superior quality with greater efficiency. We have technological flexibility at our fingertips, which allows us to expand our offer of decorative products, and in particular niche products, which have to respond to specific requirements from a specific customer. This investment in the plant’s productive capacity allows us to grow in this market in a sustainable way, increasingly diversifying our customers’ base”, points out Frans.

Bongani Mbele
Process Control



Destination
INDOOR VERSION

Travelling without getting off the couch

In the last year, opportunities to travel and to discover new landscapes and cultures were rare. However, new technologies often allowed us to leave the house without getting up off the couch and discover new realities, whether through films, series and documentaries, music, books, and even gastronomy. In this issue, we challenged employees from some of the countries where Sonae Arauco is present to guide their colleagues on a different type of journey, indoors. They also shared some tips for when we return to the 'old normal'.

The Sonae Arauco team
that took part in this article

South Africa



Abulele Madasa
Brand and
Communication

Spain



Ana Bara
Commercial Area

Germany



Daniela Celiker
Corporate Assistant/
Data Protection

Switzerland



Jacqueline Flükiger
Commercial Mandate
Holder, Sales -
Marketing - Quality
- Administration

Netherlands



Jan Van Ieperen
Keyuser - Local IT
& Logistic

United Kingdom



Joanne Ashton
Sales

Portugal



Nuno João Pinto
IT - Collaboration
& IM



01 #ToListen



PEGASUS

To discover the very best in Swiss music, the recommendation is to take a deep dive into the YouTube accounts of some of the biggest artists in the country, such as the band **PEGASUS** and their track "Streets of My Hometown", or **Douleur d'Avion**, with "la pacha mama" (for a more energetic beat). Also, take note of artist **Jonas Zahnd** and the track "Red 'n' Jones", and **DJ Cee-Roo** with "Nowhere to Run" (certainly a good way to relax after work).



Quitarricadela fuente

Spanish music is made of tradition and innovation, the rhythms of guitars and the sounds of synthesizers. Guitarist **Paco de Lucia** and his song "Entre Dos Aguas" is the symbol of flamenco from the past, while artist **Quitarricadela fuente** shows what new generations can bring to tradition, especially in the songs "Agua Y Mezcal" and "abc". Finally, **Carlos Sadness** proves that there is also space for pop music in Spain with his track "Qué Eletricidad".



Floor Jansen and Henk Poort

The Netherlands saw the birth of the famous talent show format "The Voice". And while several Dutch singers had their first professional experience on this programme, there are others, such as "Beste Zangers", who bring together on stage the best voices in the country. One example is the interpretation of "Phantom of the Opera", by **Floor Jansen** and **Henk Poort**.

02 #ToWatch

The landscapes of the city of Porto, in Portugal, can be visited through the international film "Porto", the story of two strangers who meet in the city and share several unforgettable moments. A romantic drama that can be seen on the **HBO** streaming platform.



HBO - "Porto"



Queen Sono

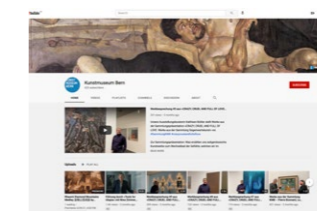
South African history and culture have been portrayed in several series and films. The police series "Queen Sono" gives us a curious perspective on the post-Apartheid reality through the eyes of first and second generation citizens. In "Seriously Single", an unusual romantic comedy, we can immerse ourselves in South African humour.

03 #ToRead

Germans say that their country has all the landscapes and tourist destinations they need, from the mountains to the lakes, not forgetting the beaches. That is why one of the reading recommendations to get to know this destination without leaving your couch (and to start the preparation of your next real trip) is a compilation of these places, with notes on where to eat, where to stay, and what to do. It is called "Hiergeblieben - 55 fantastische Reiseziele in Deutschland".



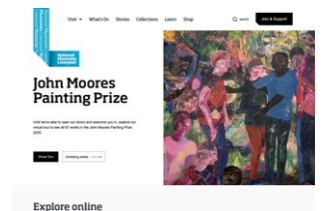
04 #ToVisit (online)



Kunstmuseum Bern
www.youtube.com/user/KunstmuseumBern



Rijksmuseum
www.rijksmuseum.nl



Liverpool Museums
www.liverpoolmuseums.org.uk

Swiss museums are open online. At the **Kunstmuseum Bern** (Museum of Fine Arts) several works by **Ferdinand Hodler**, a painter from this region, are available, while at the (heterodox) **H.R. Giger Museum**, in Gruyères, you can see the works of the painter who gives the space its name and who received an Oscar for developing an extraterrestrial for the 1980 movie "Alien".

In Liverpool, and through the **Liverpool Museums** website, it is possible to "visit" the **Museum of the World**, which houses several relics from all corners of the globe that arrived at the city by sea. During the 18th

century, Liverpool was known as "the door to the New World", as it is one of the largest ports in the United Kingdom, through which more than 9 million people emigrated to America and Canada. The Liverpool Museum is also "open", with more contemporary collections.

In the Netherlands, the **Rijksmuseum** remains open to visitors through www.rijksmuseum.nl, where more than one hundred masterpieces can be seen, with emphasis on the works of Dutch painters Rembrandt and Vermeer.

innovus®

Decorative Products

Matching life.

SONAE
ARAUCO
Taking wood further

www.sonaearauco.com

05 #ToCook

Despite being best known for its soccer team and the Beatles, Liverpool has a lot to show. The city's gastronomy reflects the diversity of people who arrived at its port. **Scouse** is the most famous dish, a recipe with Norwegian influence. It is a hearty stew, made with mutton or beef and

various vegetables, served with beetroot or cabbage pickle and a slice of bread. The recipe is easily made at home.

Another recipe that can help you travel is one of the most popular in Germany; if you were thinking of "sausages", you almost got

it right, because it is the recipe for the pasta that often accompanies this food: **spätzle**. It is also one of the main ingredients of German cold salad. To make it from scratch, you only need flour, eggs, water, and salt. Then serve with mountain cheese - **bergkäse** - and vegetables.



Recipe for scouse

Recipe for scouse shared by The Boot Room Café head chef @ Liverpool Football Club:

Ingredients (serves 4)

4 tablespoons of olive oil
700g diced steak
 2 bay leaves
 1 sprig of thyme
400g onion (diced into 1cm pieces)
350g swede or turnip (diced into 1.5cm cubes)
350g carrots (diced into 1.5cm cubes)
600g potatoes, peeled (diced into 1.5cm cubes)
500ml bitter
 1.2 litres of meat stock

Preparation

1. Heat a little oil in a large saucepan over medium heat for about 1 minute.
2. Add the meat and stir to prevent it from catching. Cook until the meat is evenly browned. Season with salt and pepper.
3. Add the onions and cook until tender.
4. Add the bitter and boil until the liquid has reduced by half.
5. Add the carrot, swede and half of the potato, followed by the bay leaves and the sprig of thyme.
6. Then add the stock and simmer for 30 minutes.
6. Add the rest of the potato and boil for an hour and a half until the meat is tender. Correct the seasoning and serve.





Photography: Pedro Guimarães

Guest

“To say that wood is the new concrete is a desirable motto for a more sustainable construction”

|
Pedro Gadanho

Pedro Gadanho works focused on a sustainable future. As an architect, he takes on the responsibility of contributing to avoid past mistakes that transformed construction into a sector with one of the largest carbon footprints. Also a curator, critic, university professor and researcher, he currently dedicates all his professional efforts to the research of alternatives to the most common materials in the sector. A pioneering project is under way to promote environmentally friendly construction and rehabilitation solutions. And he wants more people to be part of the change. Because this reinvention requires many more wills than just those of architects, he says.

Biography

Pedro Gadanho is an architect, curator, and writer. A 2020 Loeb Fellow from Harvard University, he was a curator of contemporary architecture at the Museum of Modern Art, New York. At MoMA, he coordinated the Young Architects Program, and curated exhibitions such as 9+1 Ways of Being Political, Uneven Growth, and A Japanese Constellation. Between 2015 and 2019, he was the founding Director of MAAT, the Museum of Art, Architecture and Technology, in Lisbon, where he initiated more than 50 exhibition projects, curating new commissions by artists such as Dominique Gonzalez-Foerster, Carlos Garaicoa, Tomás Saraceno or Jesper Just, as well as major interdisciplinary shows and publications including Utopia / Dystopia, Tension & Conflict, and Eco-Visionaries. Currently is the executive director of a bid for European Capital of Culture 2027 by a coalition of 17 cities in the centre of Portugal.

He has edited the BEYOND bookazine, the ShrapnelContemporary blog, and contributes regularly to international publications. Gadanho holds an MA in art and architecture, and is a PhD in architecture and mass media. He wrote *Arquitetura em Público*, a recipient of the FAD Prize for Thought and Criticism in 2012.

How do you view the role that architecture plays in the challenge of making construction - and, by extension, cities - more sustainable?

I see it as a major challenge. It will not be easy. Despite the optimism of certain sectors, many of the technologies that would allow us to achieve those goals are not available yet; they are mirages. And it is not just companies that will have to accept this responsibility, nor just governments, dictating policies that condition the development of these sectors. That is what I see as the architects' role: in addition to detailing which materials to use in the building specifications, they are essential for providing guidance on which materials should be prioritised. These professionals play a major investigative role in understanding which materials meet the goal of decarbonisation. But they cannot be the only ones trying to achieve this goal: architects are responsible for only 5% of construction worldwide.

But they inspire, they influence.

Exactly. They are influencers in the sense that the solutions they prescribe become more attractive for the market, and then are disseminated through the media, lifestyle magazines, and end up having a more generalized impact. This change cannot be just practical and professional, it must also be aesthetic. In my book [*Climax Change!* (Actar, 2021)], I even propose the idea of unconscious

'ecocide' from the architects' point of view. Architects spent 100 years defining a construction strategy that would prove to be profoundly destabilizing. We are recognising that only now. However, from the moment we know it, we have a different responsibility.

If in the field of technology we are still in the realms of a mirage, as you put it, can we look at some of the existing materials as part of the solution?

Of course. Wood is one example. It is a natural raw material and, at the same time, a very durable carbon deposit. The fact that we are thinking increasingly about circular economy makes this material more and more relevant. It can be reused endlessly, either through recycling or through what Sonae Arauco does: treating wood-based products to create new products. Even so, the thought that "wood is the new concrete" is an aspirational one. It is a desirable motto so that we can reach a point where we have a more sustainable construction. But we are only just beginning to understand how these solutions can take shape. And, obviously, that solution has obstacles. The wood must be cultivated sustainably. If the construction sector suddenly stopped using concrete and started using wood worldwide, we would have a problem. There has to be some planning, similar to what Nordic countries do; there, it is known that for each tree that is cut, 10 are being planted and will be available 20 or 30 years later. There is an additional

“Wood is one example. It is a natural raw material and, at the same time, a very durable carbon deposit. The fact that we are thinking increasingly about circular economy makes this material more and more relevant. It can be reused endlessly, either through recycling or through what Sonae Arauco does: treating wood-based products to create new products.”



The "Eco-Visionaries: Art, architecture after the Anthropocene" exhibition was held at MAAT and portrayed critical and creative visions from more than 35 artists and architects regarding the environmental transformations that affected the planet.

45

Photography: Bruno Lopes

option that is even more ecological and is being developed in Nordic countries: the possibility of using wood recovered from storms. It could be the practice 10–20 years from now. The last chapter of the book summarises my opinion on the topic. I called it the thousand paths because I believe that only through the accumulation and combination of solutions can we aim to get closer to the decarbonisation goals.

When did the need for this paradigm shift become evident in your journey?

I arrived at the discussion relatively late. It was in 2017, when I was preparing the "Eco-Visionaries" exhibition at MAAT – Museum of Art, Architecture and Technology and I had to do extensive reading research on the subject in a very short time. There is a big difference between having access to certain

information on a day-to-day basis, gradually, and having to read all the literature on the subject within three months. It was a kick in the stomach. I realised how advanced the problem is and how far we are from even beginning to solve it. That preparation was almost a warning, a personal awakening. I decided that everything I did from then on would have to be related to that topic (see box).

You are working on a pilot rehabilitation project in which all possibilities available for ecological construction will be brought together. What can you tell us about that?

The idea came up when I wrote *Climax Change!*, which used a more theoretical approach to bring together emerging solutions, framing them within the

transformation of architecture. I felt the need to move on to practical aspects, to test the models that are theorised there. In this possibility of a renewal of the sector - because the change goes beyond new construction - it interested me to do a pilot project that could be used to test emerging technologies and innovative materials developed in Portugal, at both the industrial and university levels, and that might even work as a kind of interpretation centre for ecological reconstruction. Sonae Arauco, for example, was interested in being the partner that leads the industries' presence in the project. And at the University of Beira Interior, I found an engineer who is working on alternatives to concrete using slag, the waste material from ore extraction. He uses the slag as part of a super resistant concrete, but that uses



Photography: Atelier Schwimmer/v2com

This house was designed by the Canadian architecture studio Schwimmer and is located East of Montreal, near lake Brome. The architects used charred wood, a technique from Japan that is increasingly more popular, namely because it reinforces the coating's waterproofing and repels insects.



Photography: BoysPlayNice

The Mjolk Architekti architectural studio, from Czech Republic, is the responsible for this chalet, located near the Jifetin pod Bukovou village, East of the city of Liberec and more than 100 kilometres from Prague. The country house's façade is made from charred wood.

less cement, making it more resilient and, in addition, it is also being researched as a method of carbon absorption. Basically, we want to show new models so that when someone decides to build or rehabilitate a house, they have good practices to look to. People do not have to apply all those recipes or options, but they may apply some or become aware of others they did not know existed.

What is needed so that change really happens?

I was hopeful that the pandemic would be that trigger. The problem is that climate change belongs in a category that thinker Rob Nixon defined as slow violence. It is a violence that is so subtle that we never feel it in a way that makes us act. I had

“In this possibility of a renewal of the sector - because the change goes beyond new construction - it interested me to do a pilot project that could be used to test emerging technologies and innovative materials developed in Portugal, at both the industrial and university levels, and that might even work as a kind of interpretation centre for ecological reconstruction. Sonae Arauco, for example, was interested in being the partner that leads the industries' presence in the project”.

hoped that the pandemic would be a kind of taster of what the future might hold. In fact, there were thinkers who called it a dress rehearsal for dealing with the consequences of climate emergency, believing that it would compel political leaders to act. That happened in the

United States with the launch of the Green New Deal, which represents an impressive investment of \$ USD1.9 trillion. But we still do not know if it will happen. I believe, however, that before we get to the change in the sector, we need a broader paradigm shift in the social sense and in the way we view

the economy and economic development. The economic model we have at the moment - an idea of development based on permanent growth - is not compatible with decarbonisation. From the point of view of the urgency of that change, the global crisis that we are experiencing is a difficult time but a crucial one.

Architecture of Transition

Pedro Gadanho is preparing an exhibition on the changes that architecture is going through, looking for solutions using sustainable resources. Travelling through Europe's six climate regions, he will identify in each the protagonists of this transformation. The end result will be an extensive catalogue with about 100 architecture studios that are addressing this issue. The exhibition is expected to reach the Iberian Peninsula in 2027, the year in which Portugal will be European Capital of Culture.

Trends

THE NEW OFFICE

Working from home is now more than a trend, it is a necessity!

Clever solutions that maximise space, which are comfortable and flexible, and help facilitate better digital interactions among workers will be key for maintaining focus and productivity as well as a sense of balance and wellbeing into daily life.

Non-office furniture is also many times used for creating a workspace integrated into another room, like a kitchen or living room, allowing for different styles, materials and accessories being used.

Walls can also become an important place to organise home office spaces, with clever solutions such as hooks, compartments and small shelving, while creating at the same time attractive backgrounds for virtual conferencing.



Smaller desks that can fit into smaller or unused areas thus maximizing space, wall desks that fold away and save floor space or desks that easily adjust between standing and seated positions can be good solutions for having a dedicated working area but not compromising the home space and style.

Having a working area in our living spaces will be central, thus the focus should be on creating affordable ergonomic home working solutions or pieces that blend into home interiors.



Materials with antimicrobials properties and hygiene-friendly materials that can be easily disinfected will be increasingly considered for the construction of furniture and renovation of spaces.

CORE&TECHNICAL[®]
Products

innovus[®]
Decorative Products



innovus[®]

Decorative Products



www.sonaearauco.com

SONAE
ARAUCO
Taking wood further